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September 1970

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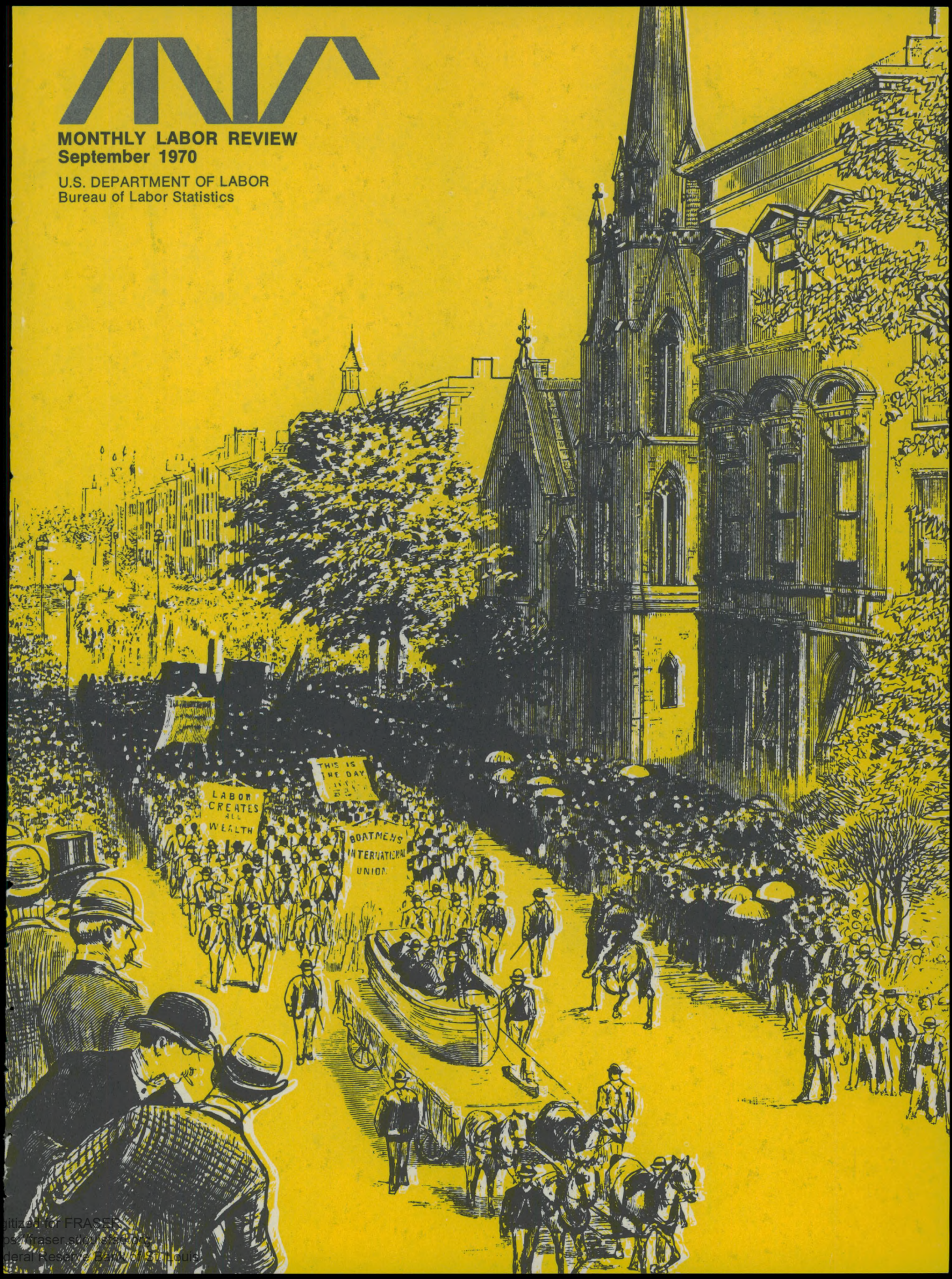
Bureau of Labor Statistics



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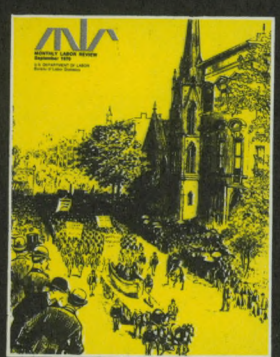

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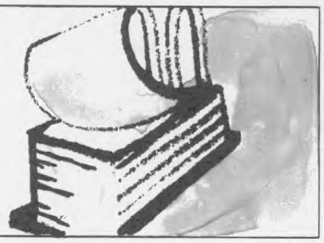
Labor Month in Review



Railroad bargaining. With some contract talks underway and others approaching, officials of the Department of Labor and the National Mediation Board met with representatives of 17 railroad unions and with railroad management to explore ways of streamlining collective bargaining in the industry. Under the present system, individual unions or groups of unions meet separately with management and generally negotiate separate agreements covering wages, work rules, vacations, and holidays. Unlike contracts in most other industries, the railroad agreements do not have fixed terms.

Changes explored at the Washington meetings would have each of the parties put a complete package of demands on the table and then bargain on all issues simultaneously, seeking fixed term agreements with uniform expiration dates.

Meanwhile, a Presidential Emergency Board recommended that one of the oldest and thorniest disputes in railroad history be settled by creating a new job classification. Under the proposal, the duties of firemen and brakemen on diesel locomotives would be combined because "there is no need for firemen on diesel locomotives." Firemen's jobs would be phased out by natural attrition. The panel urged the carriers to share the savings with workers through wage increases.

Inflation alert. The Council of Economic Advisers issued its first "inflation alert." Chairman Paul W. McCracken said that its purpose was to "lift the level of visibility" of inflationary developments in hopes that this would lead to changed public policies.

The report identified several recent wage and price increases but sought to avoid making price predictions. Data showed that annual increases in prices during 1960–69 were greatest in the construction industry. In 1969 and in the first half of 1970, median wage increases in construction were approximately twice the increases in manufacturing, the Council said. "It is clear," the report added, "that wage increases of 15 percent per year or more are far beyond even a generous estimate of gains in output per man-hour, and these wage increases therefore cannot fail to raise the cost of producing buildings, highways, and other structures."

The tobacco, rubber, and trucking industries were cited as examples of areas where inflationary pressures have had a strong effect during recent months. The report noted also that energy costs have risen sharply, with bituminous coal prices increasing an average of 35 percent between June 1969 and June 1970 and the price of residual oil 25 percent in the last year.

An analysis of inflationary developments as far back as the mid-1950's made up a substantial portion of the inflation alert. It was the Council's judgment that inflation eventually responds to the treatment of fiscal and monetary tightness; and that the longer the duration of inflation, the slower it responds to overall Government fiscal and monetary measures.

Unemployment insurance. President Nixon signed into law the unemployment compensation amendments, designed to bring 4.8 million more workers under the protection of the law. Coverage was extended to small firms with 1 to 3 employees (the previous minimum was 4), to employees of nonprofit organizations, State hospitals, colleges and univeristies, to some Americans working abroad, and to some agricultural processing workers.

The new law provides for lengthening the maximum payment period 13 weeks when the national unemployment rate equals or exceeds 4.5 percent for 3 consecutive months. In some cases, a similar provision for individual States may be invoked.

The payroll base on which the Federal unemployment tax is levied will rise from $3,000 to $4,200 in 1972. The tax rate for employers rose

from 0.4 percent to 0.5 percent of the payroll, beginning with the third quarter of 1970.

Vocational education. The National Advisory Council on Vocational Education sought to focus public attention on "one of the most glaring failures of the American education system: its inability to effectively prepare the disadvantaged for full participation in society."

In its third annual report, the Council, appointed by the President, recommended some new approaches: That employment be recognized as an integral part of education by having secondary schools act as student employment agencies and by using part-time jobs as part of their curriculums; that schools follow up on and counsel drop outs; that programs for the disadvantaged be given priority without separating disadvantaged students from the mainstream of education; that parents and students be encouraged to participate in the development of vocational programs; and that residential schools be established for those young people "who cannot cope with their homes or their neighborhoods."

Defense reorganization. The report of the independent Blue Ribbon Defense Panel, which recommended a reorganization of the Defense Department to decentralize authority and eliminate overlapping programs and personnel, also touched on the Department's employment practices.

The study group urged the Department to adhere to its equal employment opportunity programs and also suggested that "The Department of Defense, although not expected to act as enforcement agency of national labor laws, should support any appropriate action that would permit more flexibility in such matters, so that contracts could be withheld from companies that have been determined by appropriate authority to have flagrantly, deliberately, and repeatedly violated expressed national labor policy. At the same time, the Department should not use its contracting powers to help or hurt any party involved in a union representation question, a collective bargaining agreement, or an interunion dispute."

Postal reform. President Nixon signed the bill that established an independent postal service within the Executive Branch. Postal unions will bargain collectively on wages with the new agency, with unresolved differences to be settled through arbitration. The law provides for an 8-percent pay raise for postal workers, retroactive to April 16, and reduces to 8 years from 21 years the time required to reach top pay scales. Under the new law, unions will not be able to bargain for the union shop.

A board of governors, appointed by the President and approved by the Senate, will operate the system through a postmaster general whom they will appoint. Postal rates will be set by an independent rate commission. The new United States Postal Service will begin operation within a year.

Coal mine safety. A group of West Virginia University graduate students released a report on coal mine health and safety in that State—a product of 18 months of interviews and investigation. The study was financed by two private foundations, Ralph Nader, the Department of the Interior, State officials, the mine workers union, and a coal company.

The report contended that coal mining is "the Nation's most hazardous occupation" and charged coal companies, the union, State and Federal Governments, and the miners themselves with "appalling disregard" for health and safety.

New statistical series

Two additional statistical series—the implicit price deflator of the Department of Commerce and unit nonlabor payments—are included this month in table 32 (p.111). The implicit price deflator is the broadest measure of price change covering the national output of goods and services. Nonlabor payments include profits, depreciation, interest, and indirect taxes—those elements of the price deflator other than labor costs. Other data in the table have been revised to reflect new benchmarks.

Employment of school-age youth

Special Labor Force Report shows that both the number of young workers and the proportion enrolled in school have increased sharply over the past decade

ANNE M. YOUNG

As a new decade begins, a look back at the school enrollment status of young workers over the period 1959 to 1969 reveals sharp increases in both the number and the proportion enrolled in school. In October 1969, approximately 4.8 million youths 16 to 21 years old were working or looking for work and were also going to school, and 5.8 million employed youths were no longer in school.[1] The number of students in the labor force has more than doubled since 1959 compared with a rise of only one-fourth among young workers not in school. As a result of the differential increase in the numbers of students and other youths in the labor force, students accounted for close to one-half of the 16- to 21-year-old labor force in October 1969 compared with less than one-third 10 years earlier. (See chart 1.)

These changes reflected increases in three factors—the number of persons in this age group; the proportion of young persons remaining in school until they are graduated from high school and college; and the proportion of students who work. The population 16 to 21 years old reached 20 million in 1969, a gain of 6 million over the decade, and the proportion in school jumped to 60 percent, up 10 percentage points. Labor force participation rates rose substantially for men and women who were in school and for women who were no longer attending school, but declined somewhat for men who were not students.

The labor force

Over the decade the number in the labor force rose among men and women enrolled in school and among women no longer in school. (See table 1.) The number of out-of-school young men in the labor force increased between 1959 and the mid–1960's, but then decreased in recent years to nearly its earlier level because of the large numbers entering the Armed Forces as the Viet Nam war expanded.

Contributing to the large increase in the number of student workers was a sharp rise in the proportion who work. Thirty-nine percent of all students 16 to 21 years old were in the labor force in October 1969, compared with only 31 percent a decade earlier. Most of the gain in the rates occurred during the second half of the 1960's, a period in which economic expansion was substantial. The increase in labor force rates was about as large for 16- and 17-year-olds as for older students, but somewhat greater for women than for men.

The reasons for the increase in the 1960's in the proportion of students in the labor force are mixed, both in terms of financial pressures and social patterns. The desire of students to work tends to be independent of family resources and is more dependent on personal motivation. Some students work to get experience in the field which they hope to enter upon finishing school. A second group relies on their earnings to pay tuition and to buy basic necessities, such as food and clothing, while they are continuing their education. A third group wants the extra money for entertainment, automobiles, more expensive clothes, or for similar purposes.

The increase in the proportion of teenagers (16 to 19 years old) enrolled in school was greater for Negroes than for whites between 1959 and 1969. However, in both years, Negroes [2] accounted for about 10 percent of the teenage students in the labor force. The faster rise in the proportion of Negro teenagers in school was offset by the faster rise in the labor force rates for white students. In October 1969 about 30 percent of the Negro and 40 percent of the white students were in the labor force. Among 16- and 17-year-olds in school

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a greater proportion of the white than Negro students were in the labor force, but among 18- and 19-year-olds the proportions were about the same.

Among out-of-school youth, the labor force participation rate for men edged down somewhat over the decade to 90 percent. For girls, the rate rose about 10 percentage points to 63 percent because of a rise among those 18 to 21 years old.

Several factors probably contributed to the decrease in the labor force rate for men. Many of the physically able have entered the Armed Forces in recent years, so that, of those remaining in the civilian population, a somewhat greater proportion than formerly are physically unable to work. Also, some young men are out of the labor force in the weeks just prior to entering, or soon after they have been discharged from, the Armed Forces.

The large rise in the labor force rate for young women no longer in school reflects several factors. With the recent edging up of the average age at first marriage the proportion of young women who are unmarried has increased; their labor force participation rate is much higher than for married women. Also, the labor force participation rate for young married women has recently been increasing more rapidly than in earlier years, in part because of declines in birth rates. This increase in women available for employment coincided with job opportunities, especially for clerical and service workers, resulting from the expansion in economic activity during the 1960's.

Youths no longer in school in 1969 had, on average, more schooling than their counterparts earlier in the decade. In October 1969, about 63 percent of the men and 81 percent of the women 16 to 21 years old who were out of school and in the labor force had at least a high school education [3] compared with 56 and 77 percent, respectively, in 1964.

College-age workers

There were sharp increases during the second half of the 1960's in both the number and the proportion of 18- to 21-year-olds attending college, as the large number of children born in the "baby boom" years immediately following World War II reached 18. The increase in the proportion of men 18 to 21 years old attending college resulted from both the continuation of the long-term trend toward more schooling and the added incentive for some to go to school to avoid draft calls resulting from expansion of the Viet Nam conflict. In the early 1960's, the proportion of all 18- to 21-year-old men in college full time rose slightly (to 31 percent in 1964), but in the following 5 years it rose markedly. By October 1969, about 2.4 million, or 42 percent of all men in the age group, were in college full time. The increase over the decade in the proportion of 18- to 21-year-old

Chart 1. Population and labor force, persons 16 to 21 years old, by school enrollment status, October 1959–59

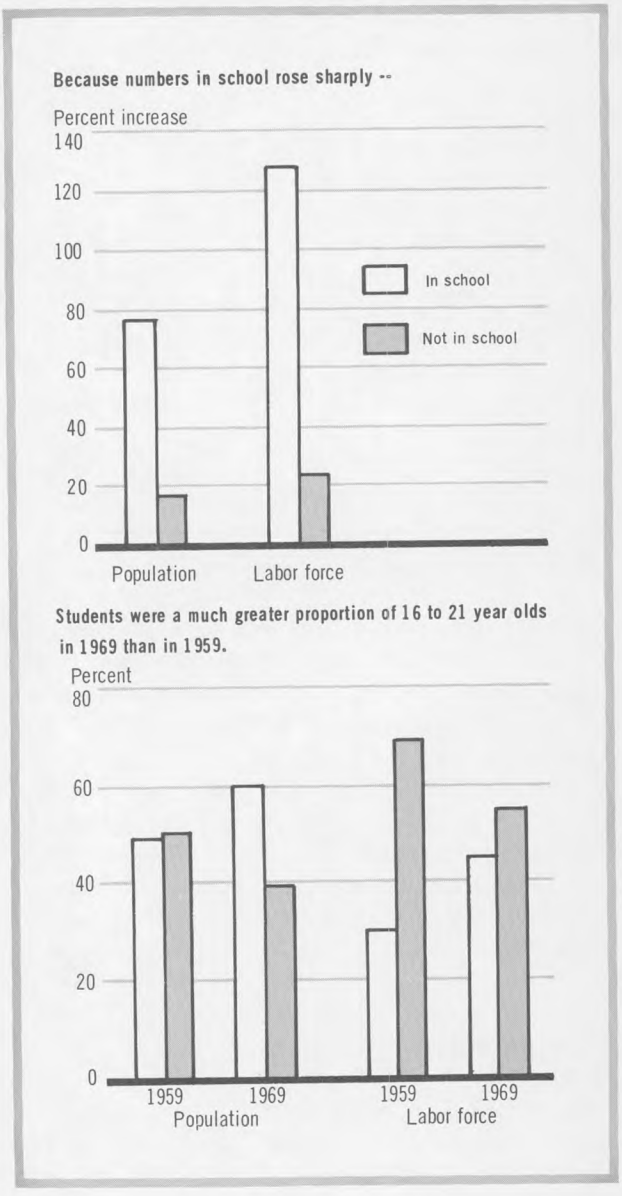


Table 1. Employment status of students and nonstudents 16 to 21 years old, by age and sex, October 1959, 1964, and 1969

[Numbers in thousands]

Enrollment status, sex, and employment status	16 to 21 years old											
	Total			16 and 17 years			18 and 19 years			20 and 21 years		
	1969	1964	1959	1969	1964	1959	1969	1964	1959	1969	1964	1959
ENROLLED IN SCHOOL												
MEN												
Civilian noninstitutional population	6,494	5,226	3,741	3,452	3,179	2,323	1,886	1,238	918	1,156	809	500
Civilian labor force	2,751	1,826	1,298	1,410	1,034	779	821	446	330	520	346	189
Labor force participation rate [1]	42.4	34.9	34.7	40.8	32.5	33.5	43.5	36.0	35.9	45.0	42.8	37.8
Employed	2,449	1,665	1,183	1,228	930	701	739	408	299.	482	327	183
Unemployed	302	161	115	182	104	78	82	38	31	38	19	6
Unemployment rate [2]	11.0	8.8	8.9	12.9	10.1	10.0	10.0	8.5	9.4	7.3	5.5	3.2
WOMEN												
Civilian noninstitutional population	5,600	4,510	3,127	3,259	3,003	2,193	1,465	958	683	876	549	251
Civilian labor force	2,007	1,102	800	1,090	683	515	537	241	196	380	178	89
Labor force participation rate [1]	35.8	24.4	25.6	33.4	22.7	23.5	36.7	25.2	28.7	43.4	32.4	35.5
Employed	1,746	962	742	930	582	471	466	215	185	350	165	86
Unemployed	261	140	58	160	101	44	71	26	11	30	13	3
Unemployment rate [2]	13.0	12.7	7.2	14.7	14.8	8.5	13.2	10.8	5.6	7.9	7.3	[3]
NOT ENROLLED IN SCHOOL												
MEN												
Civilian noninstitutional population	2,935	3,104	2,735	315	363	418	1,288	1,196	1,097	1,332	1,545	1,220
Civilian labor force	2,627	2,838	2,512	247	263	335	1,136	1,100	1,019	1,244	1,475	1,158
Labor force participation rate [1]	89.5	91.4	91.8	78.4	72.5	80.1	88.2	92.0	92.9	93.4	95.5	94.9
Employed	2,408	2,499	2,155	209	224	249	1,035	954	865	1,164	1,321	1,041
Unemployed	219	339	357	38	39	86	101	146	154	80	154	117
Unemployment rate [2]	8.3	11.9	14.2	15.4	14.8	25.7	8.9	13.3	15.1	6.4	10.4	10.1
WOMEN												
Civilian noninstitutional population	5,087	4,654	4,170	455	505	514	2,040	1,884	1,655	2,592	2,265	2,001
Civilian labor force	3,184	2,613	2,202	206	215	230	1,346	1,135	951	1,632	1,263	1,021
Labor force participation rate [1]	62.6	56.1	52.8	45.3	42.6	44.7	66.0	60.2	57.5	63.0	55.8	51.0
Employed	2,847	2,257	1,952	151	159	195	1,198	961	826	1,498	1,137	931
Unemployed	337	356	250	55	56	35	148	174	125	134	126	90
Unemployment rate [2]	10.6	13.6	11.4	26.7	26.0	15.2	11.0	15.3	13.1	8.2	10.0	8.8

[1] Percent of civilian noninstitutional population in the labor force.
[2] Percent of civilian labor force who were unemployed.
[3] Percent not shown where base is less than 100,000.

NOTE: Because of rounding, sums of individual items may not equal totals.

women in college full time was even sharper than for men; at 27 percent, the percentage was nearly double that for 1959. These figures exclude the very small proportions attending college part time in October 1969.

Labor force participation rates have increased substantially for both high school and college students at the same time that a broader segment of the population has remained longer in school. (See table 2.) With increasing costs of higher education, the past 5 years have witnessed a sharp rise in the proportion of full-time college students 18 to 21 years old who are in the labor market. After remaining close to 30 percent for men and ranging between 20 and 25 percent for women between 1959 and 1964, the labor force rate in 1969 reached 39 percent and 35 percent, respectively, for men and for women.

A small proportion, 6 percent, of these young men attending college full time were married. Most of these students have financial obligations to their family which the average unmarried student does not. As a result, 62 percent of them were in the labor force in October 1969, and about one-fourth of those employed in nonfarm industries worked at full-time jobs, much larger proportions than for unmarried male full-time college students 18 to 21 years old.

Kinds of work

In spite of the sharp rise over the decade in the number of 16- to 21-year-olds enrolled in school and in the proportion in the labor force, the number of students in this age group employed in October 1969, at 4.2 million, was about 1 million

fewer than the number not in school, 5.3 million. Over the 10-year period, the number of employed students in this age group jumped by 2.3 million, double the increase for those not in school.

Youths who work and also attend school full-time are usually able to hold only part-time jobs, in contrast to the full-time jobs held by those who are not in school. For example, of the men students attending college full time and working in nonagricultural industries, more than 8 out of 10 worked at part-time jobs; among those not in school, roughly the same proportion worked at full-time jobs in October 1969.

Distributions of occupations held by students and nonstudents are different because most students are generally available only for part-time work. Among the men, a much smaller proportion of the students hold blue-collar jobs, in part because full-time work is generally the norm in these occupations. (See table 3.) On the other hand, greater proportions of men students hold white-collar jobs, especially clerical and sales, and service jobs, where part-time work may be obtained more readily.

Among women, a much larger proportion of the students than nonstudents were employed in service occupations, mainly because many students work as part-time maids in private homes or do babysitting. Over half the women not in school held clerical jobs, and another 16 percent were blue-collar workers, primarily operatives, both significantly greater proportions than obtained among women students.

The 1959–69 period witnessed several changes in the occupational distributions of employed students and nonstudents. The continuing decline in the total number of persons employed in agriculture, because of technological developments and movement off the farm, was reflected in a 10-percentage point drop in the proportion of 16- to 21-year-old male students working as farm laborers. The proportion of students in service occupations rose by 7 percentage points, and there was some rise in the proportion who were nonfarm laborers. Among men not in school, the decline in the proportion who were farm workers was about the same as for those in school. The rise in the proportion of nonstudents who were blue-collar workers resulted largely from increases in the number and proportion working as operatives.

Table 2. Labor force status of students 16 to 21 years old, by sex, age, and type of school, October 1959, 1964, and 1969

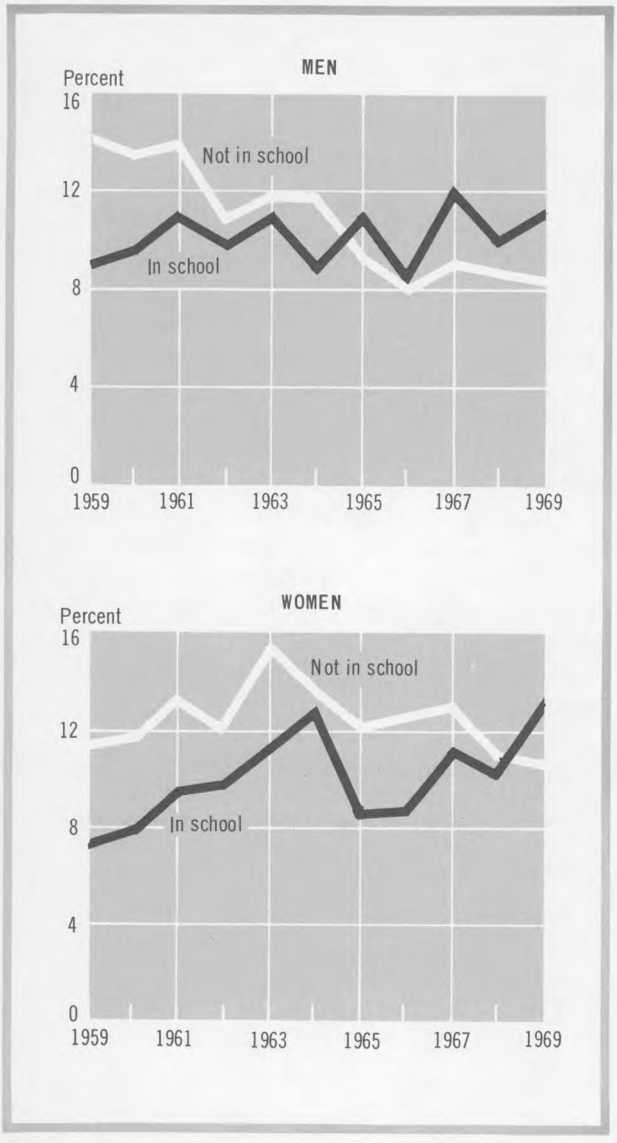
[Numbers in thousands]

Sex, age, and type of school	1969			1964			1959		
	Population	Labor force	Labor force participation rate	Population	Labor force	Labor force participation rate	Population	Labor force	Labor force participation rate
MEN									
Enrolled in school, 16 to 21 years old	6,494	2,751	42.4	5,226	1,826	34.9	3,730	1,302	35.0
Elementary or high school, 16 to 21 years old	3,866	1,670	43.2	3,427	1,192	34.8	2,513	871	34.7
16 to 19 years	3,822	1,639	42.9	3,387	1,160	34.2	2,495	858	34.4
16 and 17 years	3,333	1,373	41.2	3,014	985	32.7	2,231	749	33.6
18 and 19 years	489	266	54.4	373	175	46.9	264	109	41.3
College, full time, 16 to 21 years old	2,492	955	38.3	1,627	472	29.0	1,115	336	30.1
16 and 17 years	116	35	30.2	158	44	27.8	87	27	(1)
18 to 21 years	2,376	920	38.7	1,469	428	29.1	1,028	309	30.1
18 and 19 years	1,352	515	38.1	801	213	26.6	605	175	28.9
20 and 21 years	1,024	405	39.6	668	215	32.2	423	134	31.7
College, part time, 16 to 21 years old	136	126	92.6	172	162	94.2	102	95	93.1
WOMEN									
Enrolled in school, 16 to 21 years old	5,600	2,007	35.8	4,510	1,102	24.4	3,127	802	25.6
Elementary or high school, 16 to 21 years old	3,441	1,181	34.3	3,116	723	23.2	2,244	542	24.2
16 to 19 years	3,397	1,157	34.1	3,085	711	23.0	2,233	540	24.2
16 and 17 years	3,137	1,054	33.6	2,877	652	22.7	2,075	491	23.7
18 and 19 years	260	103	39.6	208	59	28.4	158	49	31.0
College, full time, 16 to 21 years old	1,983	681	34.3	1,252	257	20.5	796	180	22.6
16 and 17 years	115	31	27.0	120	27	22.5	105	11	10.5
18 to 21 years	1,868	650	34.8	1,132	230	20.3	691	171	24.7
18 and 19 years	1,135	377	33.2	702	141	20.1	478	107	22.4
20 and 21 years	733	273	37.2	430	89	20.7	213	64	30.0
College, part time, 16 to 21 years old	176	145	82.4	142	122	85.9	87	80	(1)

[1] Percent not shown where base is less than 100,000.

NOTE: Because of rounding, sums of individual items may not equal totals.

Chart 2. Unemployment rates of men and women 16 to 21 years old, October 1959–69



For women students, the greatest change over the period was a 10-percentage point rise in the proportion in white-collar jobs, accompanied by a drop in the proportion in service occupations, due primarily to a decline in the proportion working in private households. In spite of this drop, service occupations remained a major source of employment for women students in 1969. Among those not enrolled in school, there was no change in the already high proportion in white-collar work, 64 percent. Farm work also declined as an occupation for both in- and out-of-school young women. While the proportion of out-of-school women in service occupations did not change significantly, within that category the proportion in household service declined while that in other services rose.

Unemployment trends

About 1.1 million workers 16 to 21 years old were unemployed in October 1969. Half of them were students. Ten years earlier, students constituted only 20 percent of the young unemployed. Also, in October 1969, almost 40 percent of all unemployed persons 16 years old and over were 16 to 21 years old, although this age group made up only 13 percent of the labor force. Unemployment rates for student and nonstudent youths are consistently much higher than those for older, more experienced persons. The rate for persons 25 to 54 years old was 2.2 percent at the time of the October survey; for persons 16 to 21 years old it averaged 10.6 percent, ranging from a low of 8 percent for men not in school to 26 percent for Negro women students.

Unemployment rates are now higher for students than for nonstudents; a decade ago the rates were higher for those out of school. (See chart 2.) Between 1959 and 1964, unemployment rates for men students moved within a narrow range, while those for nonstudents decreased but remained higher than for students. In 1965, the nonstudent rate moved below that for in-school youth, and it has remained below since then. Among women, the unemployment rate for those out of school has shown comparatively little net change over the 10 year period but the rate for students has moved irregularly higher; by 1969 it was almost double that for 1959. In October 1969, for the first time, the unemployment rate for women students was higher than that for out-of-school women. This development may be only a single-year phenomenon or it may presage a trend similar to that for male students.

The higher unemployment rate among students in 1969 does not reflect an increase in the proportion of the labor force in the youngest age group. In fact, among both students and nonstudents, a somewhat smaller proportion of the labor force was 16 and 17 years old in 1969 than in 1959; and unemployment rates are highest among the youngest. Among the students, however, half of

the labor force in 1969 was 16 and 17 years old, this had a substantial influence on raising the overall rate for the 16- to 21-year-old students. The 16- and 17-year-olds made up only 8 percent of the young labor force not in school.

The higher rate among students may reflect the much larger numbers seeking employment and their limited availability with respect to hours of work. On the other hand, the decrease in the unemployment rate among those out of school undoubtedly reflects to some extent their higher educational attainment. The proportion with at least a high school education has increased over the years.

Unemployment rates among youths result in part from movement into the labor force. The work pattern of young persons typically consists of a series of entries, withdrawals, and reentries into the labor market and consequent periods of unemployment as they go through the process of settling into a position with some degree of permanence or the completion of apprenticeship or other formal training.[4] While the school calendar governs much of students' movement into and out of the labor force, out-of-school youth typically switch jobs as opportunity allows when working conditions, pay, or other factors make another job more desirable. In the absence of the structured school-to-work patterns found in many European countries,[5] finding "permanent" employment in the United States becomes a process that may take several years rather than a single act of choice. This kind of labor market activity produces relatively high rates of unemployment.

The large proportion of inexperienced new entrants in the 16 to 21 labor force is also an important factor contributing to the high unemployment rate for the age group. The traditional ways of seeking employment in this country, through friends and relatives or by direct applica-

Table 3. Major occupation group of employed persons 16 to 21 years old, by school enrollment status, sex, and color, October 1969

[Percent distribution]

Major occupation and sex	Enrolled in school			Not enrolled in school		
	Total	White	Negro and other races	Total	White	Negro and other races
MEN						
Total: Number (thousands)	2,449	2,239	210	2,408	2,021	387
Percent	100.0	100.0	100.0	100.0	100.0	100.0
White-collar	29.4	29.9	23.8	18.6	20.0	11.6
Professional and technical	7.2	7.3	5.7	3.5	4.0	1.0
Managers and officials	1.5	1.6	.5	2.6	2.9	1.0
Clerical	10.8	10.4	14.8	8.9	9.1	8.0
Sales	9.9	10.6	2.9	3.6	4.0	1.5
Blue-collar	43.3	43.8	38.1	69.8	69.1	73.2
Craftsmen	5.2	5.4	3.3	15.6	16.3	11.9
Operatives	17.9	17.8	18.6	36.3	35.9	38.4
Nonfarm laborers	20.2	20.6	16.2	17.9	16.9	22.9
Service workers	20.3	19.5	28.1	6.5	5.8	9.8
Private household	.3	.4		.1	.1	
Other service	19.9	19.2	28.1	6.4	5.7	9.8
Farm workers	7.0	6.7	10.0	5.2	5.1	5.4
WOMEN						
Total: Number (thousands)	1,746	1,592	154	2,847	2,530	317
Percent	100.0	100.0	100.0	100.0	100.0	100.0
White-collar	58.4	58.1	62.5	64.0	66.3	45.5
Professional and technical	6.7	6.6	7.2	4.3	4.6	2.5
Managers and officials	.6	.6		.9	1.0	
Clerical	36.3	35.4	45.4	53.7	55.4	39.8
Sales	14.9	15.4	9.9	5.1	5.3	3.1
Blue-collar	5.0	4.9	6.6	16.0	14.9	24.8
Craftsmen	.2	.2		.9	.9	.9
Operatives	3.7	3.5	5.9	14.4	13.3	22.9
Nonfarm laborers	1.1	1.1	.7	.7	.7	.9
Service workers	35.1	35.8	27.6	19.6	18.4	28.8
Private household	14.3	14.8	8.6	3.4	3.0	6.3
Other service	20.8	21.0	19.1	16.2	15.4	22.6
Farm workers	1.4	1.3	3.3	.4	.3	.9

NOTE: Because of rounding, sums of individual items may not equal totals.

Table 4. Duration of unemployment of persons 16 to 21 years old, by school enrollment status, age, and sex, October 1969

[Percent distribution]

Weeks unemployed and sex	Enrolled in school				Not enrolled in school			
	Total, 16 to 21 years old	16 and 17 years	18 and 19 years	20 and 21 years	Total, 16 to 21 years old	16 and 17 years	18 and 19 years	20 and 21 years
MEN								
Total unemployed: Number (thousands)	302	182	82	38	219	38	101	80
Total unemployed: Percent	100.0	100.0	100.0	(1)	100.0	(1)	100.0	100.0
1 to 4 weeks	56.1	52.7	61.0		69.1		64.0	77.2
5 to 10 weeks	37.6	40.7	34.1		19.8		18.0	20.3
11 to 14 weeks	3.3	3.3	2.4		4.1		8.0	1.3
15 weeks and over	3.0	3.3	2.4		6.9		10.0	1.3
WOMEN								
Total unemployed: Number (thousands)	261	160	71	30	337	55	148	134
Total unemployed: Percent	100.0	100.0	(1)	(1)	100.0	(1)	100.0	100.0
1 to 4 weeks	61.4	59.0			58.5		60.8	58.2
5 to 10 weeks	32.2	32.9			22.0		15.5	21.6
11 to 14 weeks	1.5	2.5			7.1		8.8	6.7
15 weeks and over	4.9	5.6			12.5		14.9	13.4

[1] Percent not shown where base is less than 75,000.

NOTE: Because of rounding, sums of individual items may not equal totals.

tion to the employer, may result in a considerable time lag between becoming available for employment and actually starting a job. One of the major functions of the family for youth of this age is the help afforded by appropriate connections so that the transition to maturity and the assumption of the work role is smoothed over. The absence of such family connections and limited knowledge of the job market handicap many in searching for employment.

Table 5. Occupation of last job of unemployed persons 16 to 21 years old, by sex and school enrollment status, October 1969

[Percent distribution]

Occupation	Men		Women	
	Enrolled	Not enrolled	Enrolled	Not enrolled
Total unemployed: Number (thousands)	302	216	263	336
Percent with no work experience	32.7	12.5	45.2	26.2
Percent with work experience	67.3	87.5	54.8	73.8
Total with work experience: Number (thousands)	203	189	144	248
Total with work experience: Percent	100.0	100.0	100.0	100.0
Professional, technical, managers, and proprietors	3.9	8.5	6.2	2.0
Clerical	6.8	9.5	34.0	36.7
Sales	4.9	2.6	8.3	7.3
Craftsmen and foremen	8.3	11.6	.7	1.6
Operatives	22.8	31.7	15.3	25.8
Nonfarm laborers	26.7	23.3		.4
Service workers	19.4	9.0	35.4	25.8
Farm workers	7.3	3.7		.4

NOTE: Because of rounding, sums of individual items may not equal totals.

The high unemployment rate produced by frequent job changes tends to obscure the fact that the average period of unemployment is relatively short for young workers. As of October 1969, 6 out of 10 jobless workers 16 to 21 years of age had been unemployed for less than 5 weeks. The men not in school had an even higher proportion jobless fewer than 5 weeks. (See table 4.) Both students and nonstudents had higher proportions of short-term unemployment than did persons 45 years old or older; one of the reasons may be that young persons are more likely to accept lower paid or temporary jobs. While unemployment rates for young persons were above those for older workers, a smaller proportion of the youths were jobless for a long time—15 weeks or more—because they either found jobs more easily or were more likely to drop out of the labor force.

Occupations of the unemployed

A substantial proportion of the persons 16 to 21 years old unemployed in October 1969, especially those in school, had no prior work experience. (See table 5.) Among the jobless students, about one-third of the men and nearly one-half of the women had never worked, substantially higher proportions than among those not in school. The much larger proportion for jobless students resulted from the fact that a greater share of them

were 16 and 17 years old, the age group most likely to have had no prior work experience.

The occupational distribution of the last jobs of the unemployed youths who had work experience was generally somewhat different from that for employed youths of the same school status and sex. Among the men, about one-half of the jobless students who had worked at some time had been operatives or nonfarm laborers, but only 38 percent of the employed students were in these two occupation groups; on the other hand, 16 percent of the jobless students had been white-collar workers, a smaller proportion than among the employed. Among the men who were not students, about two-thirds of the experienced unemployed and of the employed were blue-collar workers, primarily operatives and nonfarm laborers.

Among jobless women students with work experience, about 70 percent were equally divided between former clerical and service workers, the same proportions as among the employed. A larger proportion of the jobless than of the employed had been operatives, and relatively fewer had been sales workers. Among women not in school, clerical workers were underrepresented among the experienced unemployed while operatives and service workers were overrepresented.

IN THE MONTHS since the survey in October 1969, on which the analysis in this article is based, the economy has generally slowed down. Youth unemployment rates have begun to reflect the decline. As of late spring 1970, the overall 16- to 21-year-old rate was an average of 2 percentage points higher than a year earlier. When jobs become scarce, the greatest difficulty in finding work may be expected to occur among the young, less qualified workers. As a result of the recent overall increase in unemployment, many young students encountered difficulty in securing summertime employment. Some of them may not be able to continue with their college studies (or they may have to work during the school year) if they do not earn enough during the summer, especially if Federal Government loan funds or bank loans at reasonable interest rates are not readily available. The rate of demobilization of the Armed Forces will also affect the labor market for young workers as young men reenter civilian life. □

———*FOOTNOTES*———

[1] Data pertain to the civilian noninstitutional population and are based on information from supplementary questions to the October 1969 monthly survey of the labor force, conducted for the Bureau of Labor Statistics by the Bureau of the Census through its Current Population Survey. The data in this report relate primarily to persons 16 to 24 years old.

This is the 11th in a series of reports on this subject. The most recent was published in the *Monthly Labor Review*, August 1969, pp. 23–32, and reprinted with additional tabular data and explanatory notes as Special Labor Force Report No. 111. Reprints of all articles in the series are available upon request to the Bureau or to any of its regional offices.

[2] In this report, data for the grouping, "Negro and other races" are used to represent data for Negroes, since Negroes constitute about 92 percent of all persons in the grouping. In addition to Negroes, the grouping includes American Indians, Filipinos, Chinese, and Japanese, among others.

[3] See Howard Hayghe, "Employment of High School Graduates and Dropouts," *Monthly Labor Review*, August 1970, pp. 35–42.

[4] See Marcia Freedman, *The Process of Work Establishment* (New York, Columbia University Press, 1969).

[5] See Thomas W. Gavett, "Youth Unemployment and Minimum Wages," *Monthly Labor Review*, March 1970, pp. 3–12.

Unemployment in the United States and seven foreign countries

Shortage of jobs for teenagers figured significantly in unemployment during the 1960's

CONSTANCE SORRENTINO

A NEW INTERNATIONAL COMPARISON of unemployment rates reveals continued differences in overall joblessness among major industrial countries, and especially marked differences in the success of teenagers in finding work. In all countries studied, teenagers had more difficulty than adults in securing jobs, but the degree of difficulty varied widely. In 1968, for instance, the United States, Canada, and Italy had, by far, the highest youth unemployment rates—over 10 percent of their teenage labor forces was unemployed. Japan had the lowest level of teenage unemployment, at 2.3 percent. Italian and American teenagers had unemployment rates over 5 times as great as adults; in contrast, Japanese youth unemployment was only twice as high as adult unemployment. In general, countries with serious youth unemployment problems tended to have the highest overall unemployment rates in the 1960's.

This article—the fourth [1] in a series of reports on unemployment rates adjusted to U.S. definitions—presents comparative data on labor force and unemployment for Canada, France, Great Britain, Italy, Japan, Sweden, West Germany, and the United States during 1960–69. Some revisions have been made in the previously published data. The nature of these changes will be discussed later in this report. Adjusted unemployment rates by age and sex for seven countries—excluding France—are presented here for the first time. These data relate only to 1968.

General trends

During the second half of the 1960's, unemployment in the United States moved steadily downward, reaching a 16-year low of 3.5 percent in 1969. In contrast, unemployment rates in most other major industrial countries rose in the late 1960's. Of the seven foreign countries covered in this study, Canada, Italy, and Great Britain had unemployment rates higher than the United States in 1969. Unemployment in France, West Germany, Sweden, and Japan remained below the U.S. level in 1969, but the gap had narrowed significantly since the early years of the decade, when the U.S. jobless rate was over 5 percent.

Nevertheless, the gap began to widen again in late 1969 and early 1970. Average unemployment in the second half of 1969 was lower than, or equal to, unemployment in the first half in all countries except the United States and Canada. Seasonally adjusted unemployment in the United States rose to 3.8 percent in September and October 1969, dropped to 3.5 percent in November and December, but moved upward again to 4.2 percent in the first quarter of 1970. By the second quarter, U.S. unemployment had risen to 4.8 percent. In Canada, unemployment also rose in late 1969 and by May 1970 was up to 6.2 percent. The United States, Canada, and Great Britain were the only countries with unemployment higher in early 1970 than in the same period of 1969, and only Canada had a higher unemployment rate than the United States by early 1970.

A slowdown in European economic growth in 1967 caused unemployment rates in France, West Germany, and Sweden to rise to decade highs. In 1967, the West German unemployment rate reached 1 percent and the Swedish rate surpassed 2 percent for the first time during the decade. In France, the 3-percent level was crossed for the first time in 1968, when nationwide strikes involving over half the French labor force virtually paralyzed the economy during May and June.

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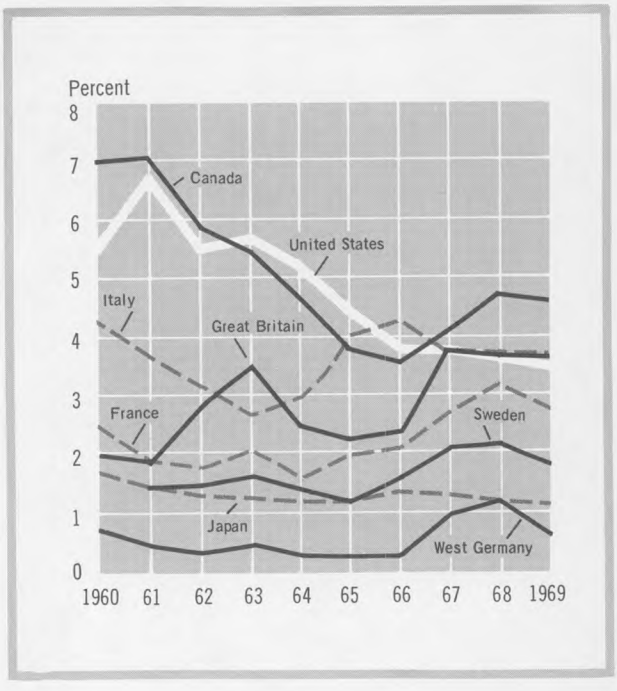
After falling to 2.2 percent in 1965, unemployment in Great Britain rose to 3.8 percent in 1967, the same rate as in the United States that year, and remained at about the same level in 1968–69. The British Government's stringent deflationary measures to combat balance of payments problems had an adverse impact on the labor market. In Italy, unemployment surpassed the U.S. rate in 1966, the first time since the 1950's, and continued slightly higher than the U.S. rate in 1969.

Canada began and ended the decade with the highest unemployment rate among the countries included here. In the intervening years, unemployment had moved downward to 3.6 percent in 1966, the lowest rate in Canada since 1956. Unemployment subsequently rose sharply to 4.8 percent in 1968 and continued at about the same level in 1969. Growth in jobs could not keep up with extremely large increases in the Canadian labor force during the 1960's. In contrast, Japan's labor force growth was not fast enough to cope with the demand for labor, and serious manpower shortages appeared after 1965. Unemployment was below 2 percent throughout the decade in Japan, reaching a 25-year low of 1.1 percent in 1969.

Chart 1. Adjusted unemployment rates in eight industrial countries, 1960–69



Unemployment trends by country

CANADA. The Canadian unemployment rate fell from 7 percent in 1960 and 1961 to 3.6 percent in 1966, generally paralleling the trend in the United States. (See chart 1 and table 1.) In 1967–69, however, the Canadian jobless rate rose well above 4 percent, while the U.S. rate continued to decline. As in the United States, Canada's uninterrupted years of economic growth during the 1960's were marred by an alarming rise in price levels during the later years of the decade. The Canadian unemployment rate rose in the late 1960's in response to restrictive monetary and fiscal policies instituted to combat inflation. The inflation-high unemployment problem in Canada was worsened by the economy's regional imbalance. In 1969, there was virtually full employment in Ontario and the four Western provinces where inflationary pressures were strongest. In Quebec and the four Atlantic provinces, however, unemployment approached 9 percent in some months of 1969.

Canada's labor market also had to contend with extraordinary growth in the supply of labor. During the 1960's, Canada had the largest percentage increase in labor force of any of the countries studied. (See chart 2.) After an annual gain of about 2.5 percent in the early 1960's, the labor force grew at an accelerated rate of 3 to 4 percent annually, beginning in 1965. This reflected an acceleration in the number of young persons reaching working age, a new surge in the level of immigration, and continued high growth in the participation of women in the labor force. In contrast with earlier years, expansion of employment opportunities after 1966 was not rapid enough to fully absorb the marked increase in the labor force.

ITALY. After reaching a low of 2.7 percent in 1963, unemployment in Italy rose in 1964–65, as government policies to curb inflation caused a recession in the economy. By 1966, despite a shift to expansionary policies, the jobless rate was 4.3 percent, the highest rate since 1960. Economic growth picked up strongly in 1967, and the un-

Table 1. Labor force and unemployment in 8 industrial countries, 1960–1969

Year	United States [1]	Canada [1]	France	Great Britain	Italy	Japan	Sweden	West Germany	France	Great Britain	Italy	Japan	Sweden	West Germany
			Adjusted to U.S. concepts						As published					
	Civilian labor force [2] (in thousands)													
1960	69,628	6,411	19,310	23,330	20,340	44,120	[3]	25,970	18,951	24,008	20,972	45,110	[3]	26,518
1961	70,459	6,521	19,200	23,600	20,270	44,610	3,581	26,180	18,919	24,299	20,882	45,620	3,699	26,772
1962	70,614	6,615	19,240	24,000	20,100	45,040	3,663	26,310	19,050	24,604	20,561	46,140	3,746	26,937
1963	71,833	6,748	19,550	24,190	19,760	45,420	3,731	26,490	19,398	24,711	20,134	46,520	3,813	27,066
1964	73,091	6,933	19,780	24,240	19,850	46,040	3,687	26,560	19,659	24,844	20,130	47,100	3,779	27,148
1965	74,455	7,141	[4] 19,950	24,420	19,650	46,770	3,711	26,730	19,829	25,040	19,920	47,870	3,794	27,300
1966	75,770	7,420	[4] 20,120	24,570	19,410	47,850	3,760	26,660	20,000	25,166	19,653	48,910	3,841	27,243
1967	77,347	7,694	[4] 20,270	24,530	19,560	48,810	3,742	26,190	20,147	24,974	19,796	49,830	3,816	26,751
1968	78,737	7,919	[4] 20,290	24,370	19,500	49,690	3,804	26,080	20,172	24,833	19,763	50,610	3,868	26,665
1969	80,733	8,162	[4] 20,320	24,290	19,280	50,150	3,832	26,410	[3] 20,195	24,764	19,534	50,980	3,894	27,001
	Unemployed [5] (in thousands)													
1960	3,852	446	480	460	880	750	[3]	200	239	360	836	750	[3]	271
1961	4,714	466	360	440	750	660	53	120	203	341	710	660	56	181
1962	3,911	390	350	660	640	590	54	100	230	463	611	590	56	154
1963	4,070	374	410	850	530	590	63	120	273	573	504	590	65	186
1964	3,786	324	320	600	590	540	57	90	216	381	549	540	60	169
1965	3,366	280	[4] 400	540	780	570	43	80	269	329	721	570	45	147
1966	2,875	267	[4] 420	600	830	650	59	70	280	360	769	650	61	161
1967	2,975	315	[4] 550	930	740	630	79	260	365	560	689	630	82	459
1968	2,817	382	[4] 640	910	750	590	84	310	431	564	694	590	86	323
1969	2,831	382	[4] 570	890	720	570	72	[4] 180	379	559	663	570	74	179
	Unemployment rate [6]													
1960	5.5	7.0	2.5	2.0	4.3	1.7	[3]	.8	1.3	1.6	4.0	1.7	[3]	1.3
1961	6.7	7.1	1.9	1.9	3.7	1.5	1.5	.5	1.1	1.5	3.4	1.4	1.5	.8
1962	5.5	5.9	1.8	2.8	3.2	1.3	1.5	.4	1.2	2.0	3.0	1.3	1.5	.7
1963	5.7	5.5	2.1	3.5	2.7	1.3	1.7	.5	1.4	2.5	2.5	1.3	1.7	.8
1964	5.2	4.7	1.6	2.5	3.0	1.2	1.5	.3	1.1	1.6	2.7	1.1	1.6	.8
1965	4.5	3.9	[4] 2.0	2.2	4.0	1.2	1.2	.3	1.4	1.4	3.6	1.2	1.2	.7
1966	3.8	3.6	[4] 2.1	2.4	4.3	1.4	1.6	.3	1.4	1.5	3.9	1.3	1.6	.7
1967	3.8	4.1	[4] 2.7	3.8	3.8	1.3	2.1	1.0	1.8	2.4	3.5	1.3	2.2	2.1
1968	3.6	4.8	[4] 3.2	3.7	3.8	1.2	2.2	1.2	2.1	2.4	3.5	1.2	2.2	1.5
1969	3.5	4.7	[4] 2.8	3.7	3.7	1.1	1.9	[4] .7	1.9	2.4	3.4	1.1	1.9	.8

[1] Published and adjusted data for the United States and Canada are identical.
[2] Published figures for Italy, Japan, Sweden, and West Germany include military personnel.
[3] Not available.
[4] Preliminary estimates based on incomplete data.
[5] Published figures for the United States, Canada, Italy, Japan, and Sweden refer to unemployment as recorded by sample labor force surveys; for France, to annual estimates of unemployment; and for Great Britain and West Germany, to the registered unemployed.
[6] Adjusted figures; as a percent of the civilian labor force. Published figures; for France, unemployment as a percent of the civilian labor force; for Italy, Japan, and Sweden, unemployment as a percent of the civilian labor force plus career military personnel; for Great Britain and West Germany, registered unemployed as a percent of employed wage and salary workers plus the unemployed. With the exception of France, which does not publish an unemployment rate, these are the usually published unemployment rates for each country. Published rates shown for Great Britain and West Germany cannot be computed from the data contained in this table.

NOTE: Data for the United States relate to the population 16 years of age and over. Published data for Canada, France, Italy, Sweden, and West Germany relate to the population 14 years of age and over; and for Great Britain and Japan, to the population 15 years of age and over. The adjusted statistics, insofar as possible, have been adapted to the age at which compulsory schooling ends in each country. Therefore, adjusted statistics for France and Sweden relate to the population 16 years of age and over; and for West Germany, to the population 15 years of age and over. The age limits of adjusted statistics for Great Britain, Italy, and Japan coincide with the age limits of the published statistics. Although schooling is usually required until age 15 or 16 in Canada, the Canadian data remain at the 14-year-old age limit because sufficient data are not available for adjustment purposes.

SOURCE: National sources and statistical publications of the International Labor Office, the Organization for Economic Cooperation and Development, and the Statistical Office of the European Communities. Some data are based partly on estimates.

employment rate moved downward to 3.8 percent. By 1969, the Italian jobless rate was down to 3.7 percent. However, this was a full percentage point above the 1963 low for the decade.

Unlike any other country studied here, Italy's labor force declined in most years of the decade. Although the Italian unemployment rate was lower in 1969 than in 1960, the economy was actually providing fewer jobs for the country's rising population. Labor force participation rates declined to the point where less than half the Italian population of working age was in the labor force by 1969, the lowest activity rate among major industrial countries. This was attributed to insufficient demand for labor, resulting in nonentry into or withdrawal from the labor force, as well as emigration and structural developments such as longer education and earlier retirement.[2]

Large-scale emigration has generally helped ease the Italian labor market by reducing the potential number of unemployed. Higher wages and more job opportunities abroad are the attractions to emigration. Over the years, Italy

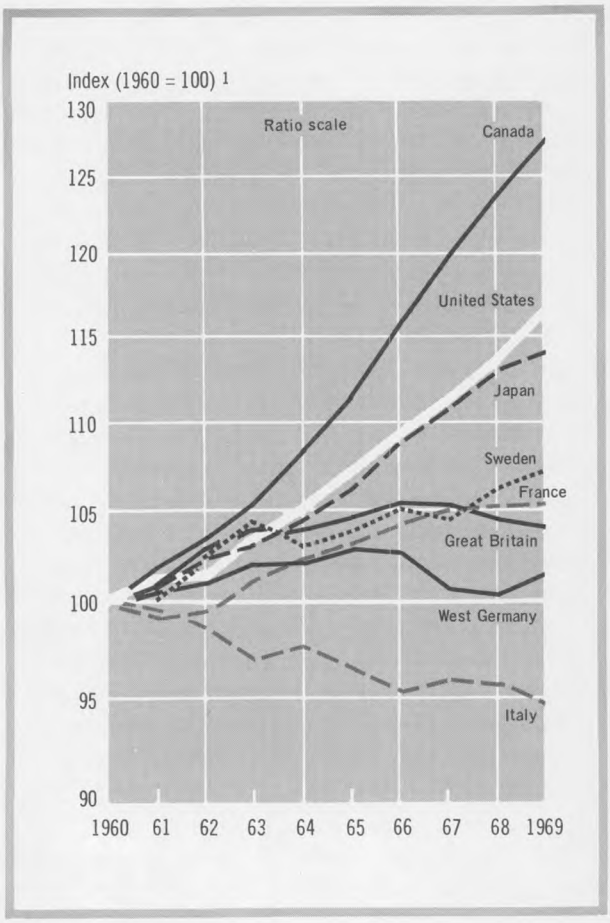
has provided hundreds of thousands of workers for labor-short European countries such as Switzerland and West Germany. In 1969, 325,000 Italians were temporarily outside the country's borders, 264,000 of them working abroad. However, this was substantially below the levels of the early 1960's, when over 500,000 Italians were working abroad. Better economic conditions in Italy and recessions in other European countries caused many Italians to return home in the late 1960's. Over 100,000 Italians who had been working in West Germany left during the 1967 recession—many to return to Italy.

GREAT BRITAIN. In the late 1960's, measures to alleviate serious deficits in the balance of payments took priority over the full employment goal in Great Britain. Restrictive fiscal and monetary policies introduced in July 1966 were followed by even more stringent measures, including devaluation of the pound, in November 1967. Unemployment rose to the 3.7–3.8-percent level in 1967–69, the highest unemployment in Britain during the decade.

The actual effect of the Government's deflationary measures on employment conditions in Britain was probably much greater than the unemployment statistics indicate. Between 1966 and 1969 employment declined by 570,000, but unemployment rose by only 290,000. The British labor force declined in 1967–69, after rising slowly but steadily in the earlier years of the decade. British projections for the 1967–69 period, assuming the demand for labor at the 1964–66 level, had indicated continued slow increases in the labor force. Therefore, the decline in the British labor force in the late 1960's apparently reflected withdrawals from or nonappearance in the labor market of persons discouraged by the leveling off of economic activity.

A comparatively new feature of the British labor market was a more persistent transitional element in the labor force resulting from higher unemployment benefits and redundancy (severance) payments since 1965. According to Britain's Chancellor of the Exchequer, these payments allowed persons a longer time to look around before taking a job, and were a factor in the higher unemployment levels of the late 1960's.[3]

Chart 2. Trends in the civilian labor force in eight industrial countries, 1960–69



1 For Sweden, 1961=100.

Job vacancies, although considerably below their 1966 peak, remained fairly high in relation to the level of unemployment in 1968 and 1969. The level of vacancies would have been compatible with a much lower level of unemployment under the conditions of the early 1960's.

FRANCE. After a decade low of 1.6 percent in 1964, the French unemployment rate moved upward to 2.7 percent in 1967 as a slowdown in economic growth led to higher unemployment, shorter hours, and greater labor unrest. Although growth picked up in late 1967 and early 1968, unemployment continued to rise. In early 1968, unemployment moved toward the "warning point" for the economy set by the Fifth Plan and became

a political issue in France for the first time in the decade.

France's economic and social problems came to a head in the upheavals of May and June 1968, which interrupted all economic activities. After the spring strikes, however, unemployment moved downward, as French producers made up for back orders and attempted to meet the increased consumer demand created by the sharp wage increases of the strike settlement. By 1969, unemployment was down to 2.8 percent, and skilled labor was becoming increasingly scarce. Reported job vacancies increased rapidly in 1969 and, by December, were 3 times as high as the prestrike level.

SWEDEN. The Swedish unemployment rate stayed below the 2 percent level until 1967–68, when a slowdown in economic activity and a particularly hard winter caused it to rise to slightly over 2 percent. The February 1968 unemployment rate of 2.7 percent was the highest since the late 1950's in Sweden. Unemployment declined to 1.7 percent in the second half of 1969, as economic growth accelerated, and averaged 1.9 percent for the year.

In Sweden, "active labor market" policies are highly developed and provide a comprehensive system of institutions for retraining and relief works.[4] The Swedish Labor Market Board acted quickly in 1967 and 1968 to meet the unemployment problem, and its programs kept the jobless rate from moving higher. Adding the annual average number of persons employed in public works (20,000) and registered unemployed persons receiving vocational training or retraining (14,000) to the Swedish unemployed count in 1968 would increase the comparative unemployment rate from 2.2 to 3.1 percent. Thus, without the Swedish Government's actions, the unemployment rate would have moved much closer to the U.S. rate of 3.6 percent that year. In 1969, the number of persons employed on public relief projects declined to 15,600, but the number of registered unemployed persons in training programs remained at 14,000.

JAPAN. The Japanese unemployment rate fluctuated within the narrow range of 1.1–1.4 percent during 1962–69, after a decade high of 1.7 percent in 1960. Although Japan's labor force grew almost 14 percent during the decade (surpassed only by Canada and the United States), years of booming economic growth opened up more job opportunities than the available supply of labor could fill. The extent of the labor shortage was revealed by the fact that, in 1969, there were about five job openings for every new high school graduate entering the labor market. Because of the severe labor shortage, employers were recruiting high school students about a year in advance. For those other than high school graduates, the job-offer-to-job-seeker ratio reached a record high of 1.6 in October 1969.

WEST GERMANY. In the years 1960–66, West Germany was confronted with serious labor shortages. Even the normally inactive handicapped, less productive, and older workers had largely been integrated into the working process. Teenagers had little difficulty finding work, and their unemployment rates were about the same as the overall rate. During 1964–66, unemployment had fallen to the incredibly low level of 0.3 percent in West Germany, down from 0.8 percent in 1960.

After years of sustained growth, the West German economy began to slow down in mid-1966. In 1967, for the first time in the history of the German Federal Republic, real output fell short of the level of the preceding year. The unemployment rate more than tripled, rising to 1 percent in 1967, and job vacancies fell below the number of registered unemployed for the first time in the decade. Withdrawals from the labor force of both foreign workers and German nationals kept the jobless rate from going higher. Between mid-1966 and mid-1967, almost 300,000 foreign workers left West Germany. Employment of German nationals dropped by 560,000 in 1967, but unemployment rose by only 190,000.

The unemployment rate increased to 1.2 percent in 1968 because of relatively high unemployment levels in the early part of the year. In the second half of 1968, unemployment declined considerably, and by 1969 averaged only 0.7 percent as manpower shortages appeared again and the labor market became increasingly tight. By October 1969, there were over seven vacancies reported for every one person registered as jobless. Foreign workers returned to West

Germany as the economic picture brightened, reaching a record level of 1.4 million in 1969, over 5 percent of the labor force. By early 1970, there were 1.6 million foreign workers in West Germany.

Unemployment rates by age and sex

Table 2 presents 1968 unemployment rates by age and sex adjusted to U.S. concepts for seven countries. Reliable estimates could not be made for France, and it has been excluded from the comparison.[5] It should be noted that data for West Germany do not relate to the full year. Five age groups are shown—all ages, teenagers, 20 to 24 years, 25 to 54 years, and 55 years and over. The 25 to 54 age group is referred to as adults for comparison with youth and older worker unemployment rates in the following discussion.

YOUTH UNEMPLOYMENT. In the United States, young workers have had substantially higher rates of unemployment than adults. In fact, in every year since the end of World War II, in recession and prosperity alike, teenagers have had the highest unemployment rates of any age group in the labor force. Teenagers abroad are also unemployed more frequently than adult workers, but unemployment rates are often much closer to those of adults than is the case in the United States (table 3).

Charts 3 and 4 show how the countries compared in terms of youth unemployment rates and the ratio of youth to adult unemployment rates in 1968. On both comparisons, Italy ranks highest in extent of youth unemployment. Italy's teenage unemployment rate was 13.4 percent, over 6 times the adult jobless rate. The unemployment problem of Italian youth probably would be worse if it were not for the escape valve of emigration. About 25,000 Italian teenagers were working abroad in 1968. Problems of teenagers in the Italian labor market are intensified by a high dropout rate from school. Almost half of Italian youths entering the labor market have not completed the basic 8 years of schooling required by Italian law.

The United States was second to Italy in extent of youth unemployment, with 12.7 percent of the teenage labor force unemployed in 1968—about 5.5 times the adult rate. Canada's young people ranked third, at 10.8 percent, 3 times the adult rate. After these three countries, there is a considerable drop to the 5.6 and 4.4 percent unemployment rate for teenagers in Sweden and Great Britain. Great Britain was the only country where the youth unemployment rate was not at least double the adult rate.

Table 2. Unemployment rates by age and sex adjusted to U.S. concepts in 7 industrial countries, 1968[1]

Sex and age	United States	Canada	Great Britain	Italy	Japan	Sweden	West Germany
BOTH SEXES							
All ages	3.6	4.8	3.7	3.8	1.2	2.2	1.5
Teenagers[2]	12.7	10.8	4.4	13.4	2.3	5.6	3.8
20- to 24-year-olds	5.8	6.3	4.0	10.0	1.8	3.2	1.4
25- to 54-year-olds	2.3	3.6	3.3	2.2	1.0	1.7	1.1
55 and over	2.2	4.2	4.4	1.3	1.2	2.1	1.6
MALE							
All ages	2.9	5.5	4.2	3.6	1.2	2.3	1.3
Teenagers[2]	11.6	12.7	5.5	13.6	2.6	5.5	3.7
20- to 24-year-olds	5.1	7.7	4.5	10.2	1.8	3.3	1.3
25- to 54-year-olds	1.7	4.1	3.7	2.2	1.0	1.7	.9
55 and over	2.1	5.0	5.1	1.6	1.5	2.6	1.6
FEMALE							
All ages	4.8	3.4	2.8	4.5	1.2	2.1	1.8
Teenagers[2]	14.0	8.3	3.3	12.9	2.0	6.6	4.0
20- to 24-year-olds	6.7	4.2	3.2	9.7	1.8	2.9	1.6
25- to 54-year-olds	3.4	2.2	2.7	2.2	.9	1.6	1.4
55 and over	2.3	([3])	2.7	.3	.8	1.2	1.5

[1] Annual averages, except for West Germany. The West German data relate to April 1968; therefore, the overall unemployment rate differs from that shown in table 1.
[2] 16 to 19-year-olds in the United States and Sweden; 15 to 19-year-olds in Great Britain, Japan, and West Germany; 14 to 19-year-olds in Canada and Italy.
[3] For this age-sex group, Canadian data are not statistically significant.

SOURCE: Bureau of Labor Statistics.

West Germany's teenage unemployment rate of 3.8 percent in 1968 was high by the standards of earlier years of the decade, when teenage unemployment was 1 percent or less. The German recession of 1967 hit teenagers the hardest. Reportedly, a wave of cyclical dismissals largely affected youths with a low level of education working in unskilled jobs which had offered relatively high pay during the boom period. The need for employers to economize during the recession led to the cancellation of many odd jobs filled by the unskilled youths.

Youth unemployment in Japan, at 2.3 percent in 1968, was the lowest of any country studied here. There is a strong preference by employers for hiring high school graduates in Japan, as shown by the highly favorable job vacancy situation for graduates. Given the very high vacancy-to-graduate ratio in Japan, it is perhaps surprising that teenage unemployment is over twice

Table 3. Ratio of youth to adult unemployment rates[1] in 7 industrial countries, 1968

Country	Total	Male	Female
United States	5.5	6.8	4.1
Canada	3.0	3.1	3.8
Great Britain	1.3	1.5	1.2
Italy	6.1	6.2	5.9
Japan	2.3	2.6	2.2
Sweden	3.3	3.2	4.1
West Germany	3.5	4.1	2.9

[1] Ratio of teenage unemployment rate to unemployment rate for 25 to 54-year-olds. Ratios are based on data adjusted to U.S. concepts.

SOURCE: Bureau of Labor Statistics.

as high as adult unemployment. There is a growing problem in Japan, however, of matching available jobs with teenage preferences. An increasing number of Japanese high school students disdain manual labor and prefer administrative and clerical jobs to factory work. In white-collar occupations, however, the Japanese labor shortage is not yet serious, and vacancies are not as numerous as in the blue-collar occupations.

UNEMPLOYMENT OF OLDER WORKERS. Unemployment rates for older workers (55 and over) were lower than rates for 25- to 54-year-olds in the United States and Italy. The unemployment rate for older workers in the United States was 2.2 percent, slightly below the rate of 2.3 percent for 25- to 54-year-olds. In Italy, however, the contrast was greater, with unemployment of older workers at 1.3 percent, much lower than the 2.2-percent unemployment rate for persons in the primary working ages. The very low unemployment rates for older workers in Italy are related to the fact that very few persons over 55 remain economically active. The labor force participation rate for older Italians was only 25 percent in 1968.

Older workers in Great Britain had the highest unemployment rate—4.4 percent. Among older male workers, the rate was 5.1 percent. Reportedly, many persons over retirement age were among the first to be dismissed when Britain's deflationary measures were instituted in the last half of the 1960's. In addition, a number of older persons were prematurely retired involuntarily. Such people had virtually no chance for reemployment in a deteriorating labor market.

UNEMPLOYMENT BY SEX. Women in the United States had a higher unemployment rate in 1968 than women in any other country studied here. At 4.8 percent, the U.S. rate was above Italy's 4.5 percent, Canada's 3.4 percent, and Britain's 2.8 percent, even though these countries had higher overall jobless rates. Canada had the highest level of male unemployment, at 5.5 percent. Great Britain and Italy were next, at 4.2 and 3.6 percent, respectively. The United States ranked fourth, with 2.9 percent of its male labor force unemployed.

In the United States and West Germany, women were more likely to be unemployed than men. Although this was also true in Italy, as indicated by the total unemployment rate of 3.6 percent for men and 4.5 percent for women, Italian men had higher or identical unemployment rates in comparison with women in all four age groups delineated. The reason for this unusual result was the higher concentration of female unemployment and labor force in the younger age groups, where unemployment rates are highest. Seventy percent of all unemployed women were under age 25 in Italy, whereas only half of the jobless Italian men were under 25. In Japan, men and women had identical unemployment rates overall. Swedish, British, and Canadian women, however, had lower unemployment rates than men.

Teenage girls in the United States had a higher unemployment rate than girls in any other country studied—14 percent. The rate for teenage boys in the United States was 11.6 percent. In the United States, Sweden, and West Germany, teenage girls had greater difficulty in securing jobs than teenage boys.

Adjustment to U.S. definitions

With the exception of Canada, the basic labor force and unemployment statistics of the foreign countries studied required adjustment to bring them into closer comparability with U.S. data. Adjustments were made for all known major definitional differences. However, it should be noted that it has been possible to achieve only approximate comparability among countries. The accuracy of the adjustments depends on the availability of relevant information, and, in some instances, it has been necessary to make estimates

based on incomplete data. Nevertheless, the adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

No adjustment has been made for the different labor force classifications of persons enrolled in government-sponsored training and retraining programs among the countries covered here. In the United States, classification varies according to type of program. Participants in most poverty program groups which combine work experience and training—for example, the Neighborhood Youth Corps—are classified as employed. Participants in the Job Corps, however, which is primarily a means of training and rehabilitating young persons in residential centers away from home, are counted as not in the labor force. Persons enrolled in training courses under the Manpower Development and Training Act are classified as unemployed if they receive only institutional training. If a person receives on-the-job training involving payment of a wage or salary, he is considered employed. Other countries generally follow the U.S. practice of classifying persons in on-the-job training programs as employed. However, persons receiving only government-sponsored institutional training may be regarded as outside the labor force in other countries. Sufficient information on this point is not yet available to BLS for adjustment purposes, but the effect on comparative unemployment rates is believed to be small.

The adjustment methods used by BLS were described briefly in the earlier studies. However, several significant refinements in methods have been used for this study and many of the previously published estimates have been revised. A minor change, which did not affect the adjusted unemployment rate, was made in the adjustment method for Italy. Important changes in the methods for the other countries, including some qualifications on the comparability of Canadian statistics, are discussed below.

CHANGES IN U.S. DEFINITIONS. All data in previous studies were adjusted to the labor force definitions followed in the United States prior to 1967. In this study, foreign country data have been adjusted, insofar as possible, to the revised U.S. concepts adopted in January 1967. At that time, the definition of unemployment was tightened and actual jobseeking activities were required for a person to be counted as unemployed. Methods used in adjusting the French and Japanese statistics were changed slightly in accordance with this new definition.

Another change introduced in 1967 was the raising of the lower age limit for labor force statistics from 14 to 16 years of age. Instead of adjusting the data of all countries to the new U.S. cutoff age, the foreign age limits, wherever possible, have been adapted to conform to the age at which compulsory schooling ends in each country. This was done because youths in most other countries complete their education and enter the labor force on a full-time basis at earlier ages than in the United States. Therefore, French and Swedish data are adjusted to cover 16-year-olds and over and West German data to cover 15-year-olds and over. British and Japanese data remain at their published age limit of 15, and Italian data remain at 14. Although schooling is usually required until age 15 or 16 in Canada,

Chart 3. Comparative youth unemployment rates by sex in seven countries, 1968

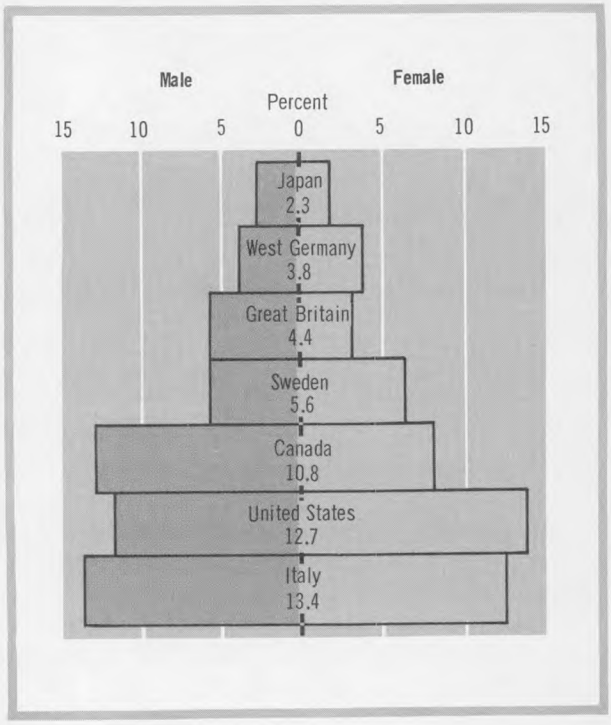
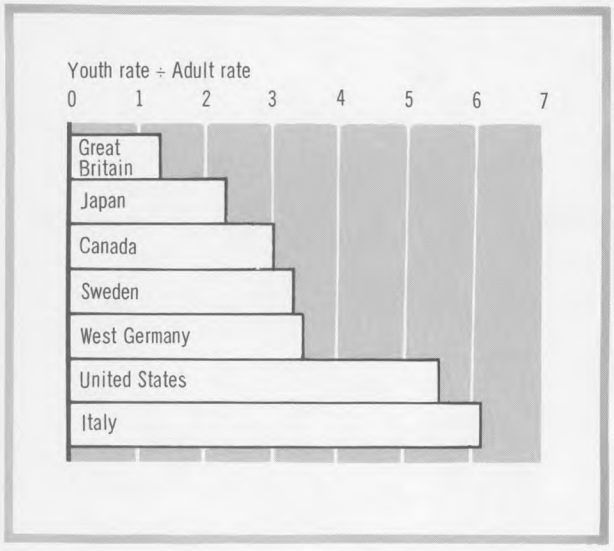


Chart 4. Ratio of youth to adult unemployment rate in 7 countries, 1968



Canadian data have been left at the 14-year-old limit because sufficient data are not yet available to the Bureau for adjustment purposes.

The effects of the revised age limits for France, Sweden, and West Germany were minimal. In all years, the age limit adjustments resulted either in no change in the overall adjusted unemployment rate or in reductions amounting to no more than one-tenth of 1 percentage point. If the U.S. lower age limit of 16 had been used for the Japanese data, overall unemployment rates would have remained unchanged. However, Italian unemployment rates would have been reduced if 14- and 15-year-olds had been excluded; the adjusted Italian unemployment rate in 1968 for 16-year-olds and over was 3.5 percent, compared with the 14-year-old and over rate of 3.8 percent. Italy's adjusted youth unemployment rate for 16- to 19-year-olds in 1968 was 11.3 percent, compared with the 14- to 19-year-old rate of 13.4 percent used in this study.

CANADA. As in earlier studies, no adjustments have been made in the published unemployment data for Canada. However, there is some evidence which indicates that there may be an understatement of unemployment, particularly among married women. In enumerating the unemployed, the Canadian labor force survey questionnaire differs from the U.S. questionnaire in two important respects. First, the Canadian survey schedule does not specifically ask whether a person was looking for work. Second, the Canadian survey allows for a shorter period of time for jobseeking activities than the U.S. survey. In Canada, a person must have been seeking work in the survey week to be counted as unemployed, whereas a 4-week period for jobseeking is allowed under U.S. definitions. Prior to revision of the U.S. concepts in 1967, the survey questionnaire was unspecific as to the time period for jobseeking. When the U.S. time period was specified as "within the past 4 weeks" in 1967, it was estimated that this caused an increase in the female unemployment rate of four-tenths of a percentage point. Both of the differences mentioned above suggest that the U.S. survey may probe more deeply into the question of unemployment and, hence, pick up more of the "peripheral" labor force—for example, housewives seeking work—in the unemployed count.

The 1961 Canadian population census provides some indication of an undercount of unemployed married women. Unlike the labor force survey, the census questionnaire specifically asked whether persons were looking for work; however, the jobseeking was still limited to only the survey week. Comparison of the results of the June 1961 Canadian population census and the labor force survey for that month reveals that, although unemployment as measured by the census was 32 percent smaller than that derived from the labor force survey, the number of unemployed married women was 60 percent higher in the census than in the survey.[6]

Since the only available information for making an adjustment is the 1961 census, it was felt that no reliable adjustment could be made for the possible undercount of unemployed married women in Canada for the entire 1960–69 period. In any case, an adjustment based on the 1961 census would have had only a small effect on the overall unemployment rate, raising the published Canadian rate by only one- or two-tenths of a percentage point in all years of the period. The

female unemployment rate would have been raised from 3.4 to 4.1 percent in 1968. This would not change the relative position of Canada in extent of female unemployment among the seven countries studied.

There are also a few other minor differences between the U.S. and Canadian labor force survey definitions for which no adjustments have been made. First, Canada, by definition, counts as unemployed persons not seeking work because of a belief no jobs are available, but there is no specific question on this point in the survey questionnaire. Prior to the 1967 U.S. revisions, such persons were also theoretically counted as unemployed, but, like Canada, without explicit questions. They are now counted as outside the labor force in the United States. Second, Canada classifies persons who have jobs but are absent from work during the survey week and looking for other jobs as unemployed. With the 1967 revisions, such persons are classified as employed in the United States. Adjusting the Canadian unemployment figures to exclude persons not seeking work because of a belief no work is available and persons with jobs, not at work, and seeking work would probably not lower the Canadian rate by more than one- or two-tenths of a percentage point.

FRANCE. Results of the 1968 population census in France caused the French authorities to revise their previously published annual estimates of unemployed and labor force. In addition, when the last article was published, the latest available French labor force survey results were for October 1962. The October 1964 survey has since become available, making it possible for the Bureau to update its previously published estimates for France. It is probable that when the results of surveys conducted in later years are published, the estimates for 1965 and later years will require further revision.

GREAT BRITAIN. A new method of adjusting British unemployment data to U.S. concepts has been introduced here, based on the results of the April 1961 population census and the April 1966 "sample census" of Great Britain. The sample census was, in effect, a labor force survey, the first of its kind conducted in Great Britain between decennial census years. Concepts and definitions were similar to those used in the U.S. labor force survey and allowed for tabulation of adjustment factors to apply to the British registered unemployed series. Adjustment factors for 1960 were assumed to be the same as for 1961; for 1962–65, factors were interpolated from the 1961 and 1966 results; for 1967–69, adjustment factors were assumed to be the same as for 1966. BLS had based its adjustments to the British data in the past on a 1962 study of British unemployment statistics.[7] The new estimates raised the British unemployment rate higher than the previously published estimates for 1963 to 1968 and lowered the rates for 1960 to 1962.

Analytical problems arose from the fact that data on labor force status were not collected in exactly the same way in 1961 and 1966. Insofar as possible, the more detailed information available from the 1966 census was used to put the 1961 census results on a compatible basis prior to arriving at adjustment factors. Comparison of the results of these two censuses, adjusted for the differences between them, indicates that the extent to which the British registered unemployed series undercounts unemployment according to U.S. concepts apparently rose sharply between the 2 years. In 1961, adjusted unemployment was estimated as 128 percent of total registered unemployment; in 1966, it was 167 percent. The results of the two censuses indicate that a substantial increase in underregistration of unemployed adult women apparently occurred between 1961 and 1966. Because of the sharp rise in the undercount of unemployment, the reported British unemployment rate of 1.5 percent in both 1961 and 1966 was adjusted to only 1.9 percent in 1961, but to 2.4 percent in 1966.

The use of adjustment factors based on only two time periods, April 1961 and 1966, when reported unemployment was very low, to adjust data for other years, particularly years of high unemployment, is subject to a substantial margin of error. Unfortunately, BLS does not have reliable information on whether the proportion of unemployed persons who register in Great Britain changes substantially as unemployment increases. In 1966, 1968, and 1969, the number of registered

unemployed females declined, and the number of registered unemployed males increased. This could be a true reflection of labor market conditions, but it could also result from a further decline in the propensity for unemployed females to register.

Recognizing the need for more precise information on the labor force, the British Central Statistical Office recently announced plans to carry out a pilot household sample survey this year and to begin a regular program of surveys at the end of 1970. As results of these surveys become available, the method of adjusting the British data to U.S. concepts will be further refined.

JAPAN. Japan redesigned its labor force survey in September 1967, and all major data items were revised back to 1960 based on the new survey design. The labor force survey schedule is now filled out by the respondent himself, rather than the interviewer. In addition, wording and ordering of questions were changed and minor revisions in definitions introduced. The revised data resulted in higher unemployment rates than had been published previously by Japan.

SWEDEN. Prior to 1968, the International Labor Office (ILO) published the registered unemployed series as representative of Swedish unemployment figures. In 1968, however, ILO began to publish the Swedish sample survey results as well as the registered unemployed series. Previous studies on comparative unemployment showed the registered unemployed series as the regularly published data for Sweden. Beginning with this study, the sample survey data are entered instead.

WEST GERMANY. Data in previous articles covered the Federal Republic of Germany, excluding West Berlin. Here, data for all years have been revised to include West Berlin, and are labeled "West Germany." Inclusion of West Berlin increased the previously published adjusted unemployment rates slightly in the early 1960's but has made no difference in the adjusted rate since 1964.

Adjusted rates by age and sex

Adjusted unemployment rates by age and sex for 1968 are less reliable than the overall adjusted unemployment rates. Whereas adjustments made to the overall unemployment rates were based on published statistics generally available each year, adjustments by age and sex were partially estimated on the basis of data for years other than 1968. For example, career military personnel and unpaid family workers working less than 15 hours had to be excluded from the labor force in most countries for comparability with U.S. data. Such adjustments by age group for France and Italy were based on age distributions from a 1960 survey coordinated by the Statistical Office of the European Communities. For Japan, age distributions of the career military were taken from the 1965 census.

Adjusted figures by age and sex for Great Britain should be regarded with special caution because the regularly published British data are from registered unemployment statistics rather than a labor force survey. Data on registered unemployed persons are particularly weak for comparisons of youth unemployment rates, since a high proportion of unemployed youths are new entrants to the labor force. Such persons are generally not eligible to collect unemployment benefits and are, therefore, much less likely to register with employment offices than the experienced unemployed.[8] Registration statistics also undercount unemployment among married women in Great Britain, since a large number have accepted the option of not paying the British unemployment insurance tax and, hence, are not covered for unemployment benefits. The method of adjustment of the British data by age and sex is based on ratios derived from the 1966 sample census of Britain. Since economic conditions in 1966 were markedly different from conditions in 1968, the adjusted data by age and sex may be less accurate than the adjusted data for countries with regular labor force surveys. □

———*FOOTNOTES*———

[1] See *Monthly Labor Review*, August 1962, pp. 857–864; March 1965, pp. 256–259; and April 1967, pp. 18–20.

[2] Organization for Economic Cooperation and Development (OECD) *Economic Outlook*, December 1968, p. 69.

[3] See "A Recession with Full Employment?" *The Economist*, January 24, 1970, pp. 49–50; and "Down to 2.5 percent is Fine, but . . ." *The Economist*, February 22, 1969, pp. 61–62.

[4] For a description of Sweden's manpower programs, see Sol Swerdloff, "Sweden's Manpower Programs," *Monthly Labor Review*, January 1966, pp. 1–6.

[5] The latest available French labor force survey was conducted in October 1964. Results of this survey, adjusted to U.S. concepts, yielded a teenage unemployment rate of 6.0 percent about four and one-half times the adult unemployment rate. It is believed that teenage unemployment has risen substantially since 1964, but no accurate statistics are available as yet. The adjusted female unemployment rate was 3.0 percent, over twice as high as the male rate of 1.4 percent. The rates for teenage boys and girls were 7.4 percent and 5.0 percent, respectively. Workers aged 55 and over had a jobless rate of 1.6 percent.

[6] See Mordechai E. Lando, *The Sex Differential in Canadian Unemployment Data* (Center for Naval Analyses, Professional Paper No. 2, January 9, 1970).

[7] See *Monthly Labor Review*, May 1962, pp. 489–501. This study was subsequently expanded by the author, Joseph Zeisel, in *The Structure of Unemployment at Full Employment in Great Britain and the United States* (published on demand by University Microfilms, Ann Arbor, Mich.). Another student of British unemployment statistics, Robert J. Flanagan, provides an alternative method of adjusting British unemployment data to U.S. concepts in his recently completed dissertation entitled *A Study of International Differences in Phillips Curves* (Berkeley, University of California, 1970). Unpublished. He arrives at higher unemployment rates than those shown in this article. In 1960, he raises the British rate to 2.7 percent; in 1968, to 4.2 percent.

[8] Youth are not as likely to be underrepresented in the British registered unemployed data as in the employment office data of most other countries because of the existence of the Youth Employment Service (YES) in Britain. Young persons under 18 seeking their first employment who register for job placement with YES are included in the British registered unemployment count. However, there is no compulsion to register at YES and, in 1969, only 8,600 school leavers who had not yet been in insured employment were included in the British registered unemployed total.

Summer jobs for young workers

Jobs for young people were less plentiful this summer than last, according to a mid-August report by the Bureau of Labor Statistics. While the young labor force was increasing to 13.3 million (due mainly to a lesser number of young men in the Armed Forces), the total number of 16- to 21-year-olds employed was only 11.2 million—some 210,000 less than in the summer of 1969. As a result, unemployment among youths rose to a rate of 15.7 percent, compared with 12.8 percent in 1969 and 14.0 percent in 1968.

Unemployment of white and black youths increased by the same proportion from 1969 to 1970, their jobless rates rising to 13.6 and 30.2, respectively. Young men accounted for more than three-fourths of the overall rise.

The full report, *Employment in Perspective: Youth Job Situation in Summer 1970*, is available from any of the BLS regional offices listed on the inside front cover.

A report on the 1970 International Labor Conference

Poverty, civil rights, jobless youth, minimum wages, and the ILO's internal structure were major topics of the Geneva gathering

JOSEPH P. GOLDBERG

THE FIFTY-FOURTH SESSION of the International Labor Conference held in June amply demonstrated the organization's faculty for adapting to the changing conditions and prospects confronting the workers of the world. The social and economic aspects of poverty and trade union rights in relation to civil liberties were major foci of discussions by government, employer, and labor representatives from 111 of the 121 member states of the International Labor Organization. Despite internal tensions, several important international instruments were adopted by this unique tripartite international institution. There were continued and divergent pressures from smaller industrial states, developing countries, and the Soviet bloc countries for altering the structure of the organization. Political issues, some directly and others more tenuously related to the rights guaranteed to workers' organizations, also figured prominently.

The conference was one of transition. Substantively, it was oriented to the Second Development Decade program, being concerned with the interrelated social and economic needs of the world's peoples. Administratively, it reflected for the last time the influence of David A. Morse, who had resigned just prior to the conference, after 22 years as Director-General of the International Labor Office. In May, the governing body of the ILO elected Wilfred H. Jenks to the position. The new Director-General has been a prominent member of the ILO Secretariat for over 40 years.

V. Manickavasagam, Malaysian Labor Minister, was elected president of the conference.[1] The three vice presidents elected were I. Pacuraru, government delegate of Rumania, F. Bannerman-Menson, employer delegate of Ghana, and G. B. Fogam, worker delegate of Cameroon.

The U.S. delegation, headed for the first time by George H. Hildebrand, Deputy Under Secretary of Labor for International Affairs, participated actively in all phases of the conference.[2]

ILO and poverty

Almost 200 speeches by government, worker, and employer representatives delivered during the 2 weeks of plenary sessions centered on the outgoing Director-General's report, "Poverty and Minimum Living Standards—The Role of the ILO." The report took its theme from the approaches developed by other United Nations agencies to the Second Development Decade, which now stresses the need for coping with social problems along with economic growth in national development programs.

The report on poverty is complementary to the ILO World Employment Program, adopted by last year's conference, which emphasizes the essentiality of including higher levels of employment as objectives "if development is to lead to higher standards of living for more and more people, and if the benefits of development are to be spread more equitably." [3]

The keynote of the poverty report was that "A policy for minimum living standards implies giving as much care and attention to the setting of consumption targets as to the setting of investment targets. . . ." [4] The scope of the treatment is wide-ranging, including the need for agrarian reform in many developing countries, the persistence of inequalities based on race, caste, religion, and other distinctions, and the problems of population pressure and of subsistence

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agriculture. Some guides to national policies are indicated, along with the outlines of a program through which the ILO can contribute to the requirements for raising living standards.

The extended discussion of the Director-General's report indicated general approval of the tone, direction, and guides proposed for consideration. Some of the speeches covered the theme of the report, others gave elaborate description of developments within their own countries that coincided with some of the report's proposals, and still others added requests, or forceful demands, for aid from the industrialized countries. Many speakers also called for change in the ILO structure. More general political assertions were made by a number of Arab states, notably charging Israel with aggression, coupled with sallies against the United States for its role in Viet Nam and Cambodia. Less intense but frequent expressions in the same direction came also from the Soviet bloc spokesmen.

In his observations, Mr. Hildebrand agreed that growth in income and output, though essential elements in solving problems of poverty, would not automatically assure higher levels of real per capita income. Stressing that each nation must deal with underlying causes of poverty in terms of its own institutions and basic goals, he cited the role of rapid growth in both industrial and agricultural national output as essential to "provide lasting improvements in personal incomes, in social security, and in conditions of life and work." But economic gains would be without real meaning where "personal liberty, freedom of initiative, and freedom of association" do not prevail. Citing recent legislation and proposals for dealing with poverty in the United States, he stated: "In our view, the task of improving conditions of life and work is never finished. This is one of the major reasons why the United States belongs to the International Labor Organization: we can learn and we can contribute through our active participation." He stressed the unique character of the tripartite ILO structure, grounded on the independence of both the workers' and employers' groups from government domination, and on the common premise among all these groups "that compromises among their competing interests are both possible and to be sought."

Fostering such goals should obtain a climate free of rancor and recrimination. Oppositely, there was overt criticism of U.S. involvement in Viet Nam and Cambodia, which required lengthy rebuttal by Mr. Hildebrand. His concluding remarks were, " . . . It becomes a grotesque experience to hear speeches in this conference by delegates whose governments are openly supporting the aggression of North Viet Nam, speeches that are replete with sympathy for the people who are the victims of that aggression, but which never offer the slightest prospect of a negotiated settlement."

Mr. Rudolph Faupl, U.S. workers' delegate, called attention to the long campaign against poverty by the American labor movement, as well as by workers' organizations in all free countries, and cited the continuing efforts made in the United States to wipe out racial and religious discrimination, to raise the minimum wage, and to establish a national health insurance program. He, too, felt that scurrilous attacks on the United States called for a reminder that the United States had come to the assistance of South Viet Nam at the request of that country when it was faced by aggression from North Viet Nam, aided and abetted by the Soviet Union and Communist China. He called attention to the existence in South Viet Nam of a more vigorous and independent trade union movement than in those countries making these attacks. Regarding the charges against Israel, he called that country "the very model of economic development and social progress in the world to which so many countries have turned to learn from its experience. Its loss would be tragic, not just for its nearly 3 million people, Jews and Arabs alike, but for the entire world, and especially the workers of the world."

Civil liberties

Trade union rights and civil liberties figured prominently in the deliberations of the conference. There was also concern with the need for reiteration of the rights and immunities associated with free expression by worker and employer delegates to the conference. The Resolutions Committee gave extensive consideration to proposed resolutions calling attention to the trade union situations in Spain and Greece. The final Conference actions on these matters varied considerably.

The report of the Office, "Trade Union Rights and Their Relation to Civil Liberties," was the

basis for a first general committee consideration. Wide-ranging discussion culminated in the development of a resolution, explicity stating that the absence of civil liberties for workers' and employers' organizations removes all meaning from the concept of trade union rights.[5] Deep concern was expressed about repeated violations of trade union and other human rights, and the competence of the ILO in this field within the United Nations system was reaffirmed. It urged member states which have not yet done so to ratify—and to observe—the ILO Conventions on Freedom of Association and Protection of the Right to Organize (No. 87) and on the Right to Organize and Collective Bargaining (No. 98), and urged the governing body to increase efforts to secure observance. The resolution also called for comprehensive ILO studies of means to ensure universal respect for trade union rights and related civil liberties, including the unions' right to participate in work places and the general economy, and the right to strike. The studies should lead to the development of international instruments. The resolution was adopted unanimously by the conference despite some individual reservations.

Freedom of speech for nongovernmental delegates to ILO meetings was deemed in need of clarification and reaffirmation, despite existing protection in the ILO constitution and UN conventions. The conference unanimously approved a resolution explicitly affirming that employers' and workers' representatives should be able freely to express their views on matters of concern to the ILO, and to report back to the members of their organizations in their own countries. The resolution expressly states that "such immunity may be necessary even in relation to the authorities" of the state of which they are nationals.

Resolutions relating to freedom of association in Spain and Greece, introduced by workers' representatives, failed of adoption. The proposed statement on Spain called for implementation of the recommendations of the ILO Study Group on the trade union situation in Spain published in September 1969. It was defeated in committee by a majority of government and employer members, who indicated that, while they were concerned with freedom of association, they felt the resolution was discriminatory in that it singled out one country while others remained in violation. A resolution calling on the Greek Government to consider favorably a general amnesty for trade unionists and workers imprisoned or deported for trade union activities, and to make its law and practice conform to Conventions 87 and 98 which it had ratified, was not accepted by the conference, because of lack of a quorum. Many government representatives and the employer spokesman indicated that the resolution prejudged matters presently under review by an ILO Commission of Inquiry, thereby violating the ILO constitutional process.[6]

International instruments

The development of conventions (which come into effect through ratification by individual States) and of recommendations (which require reporting by all members) establish international standards which exert important influences on the law and practice of member states. This important aspect of conference activity was handled by four technical committees during the ongoing session.

Regarding holidays (that is, vacations) with pay, the conference adopted a new convention applicable to all employed persons.[7] On the question of covering agricultural workers, a compromise was reached which permits separate ratification or nonratification for agricultural and nonagricultural workers. The convention sets a minimum standard of 3 working weeks of vacation for 1 year of service. The final vote was 213 for the convention and 62 against, with 62 abstentions. (U.S. Government and workers' delegates voted for the adoption, and the employer delegate against.) The employers' stand was grounded in part on insufficient consideration given in the terms of the instrument to conditions in developing countries.

The conference adopted a convention and a recommendation on minimum wage fixing, with special reference to developing countries. Under the convention, ratifying states undertake to establish a minimum-wage-fixing machinery, with coverage to be determined by the Government after full consultation with representative organizations of employers and workers concerned. Minimum wage rates are stated to have the force of law, with failure to apply them making persons concerned subject to appropriate penal or other

sanctions. In fixing the level of minimum wages, account is to be taken of both the needs of workers and their families, including the general wage level, the cost of living, social security benefits, and the relative living standards of other social groups. Attention must be directed also to general economic factors, including economic development requirements, levels of productivity, and the need to attain a high level of employment. The recommendation provides detailed guidelines for placing the convention's principles into effect and includes provision for regional or zonal minimum wage variations based on differences in the cost of living. The final vote on the convention was 248 for, 46 against, and 46 abstentions. (U.S. Government and worker delegates were for and the employer delegate against the convention.) The vote on the recommendation was 251 for, 5 against, and 74 abstentions. (U.S. Government and worker delegates were for the recommendation, and the employer delegate abstained.)

In opposing the convention, the spokesman for the employers' group stated that cost effects of the minimum wage and its impact on the general wage structure in the free world fall on employers, who market their products under strong competition. While the employers' representatives accepted minimum wages as a means of overcoming poverty, they pointed out it was only one element in the totality of a social security and social protective system. They said that the provisions in the instruments lacked flexibility and dynamism, and that the emphasis on statutory provisions might threaten free collective bargaining.

Another recommendation adopted by the conference was on special youth employment and training schemes for development purposes. The stimulus for the recommendation was the concern over the growing volume of unemployment and underemployment of youth in developing countries. Youth there receives little or no education or the education provided does not meet the practical needs of their communities. Of major concern in the development of the recommendation was the issue of compulsory recruitment. The recommendation meets this problem by calling for voluntary participation in special employment programs, and maximum individual free choice of activities and regions. Recruitment is permitted only under legislative enactments and in full compliance with the terms of international labor conventions on forced labor and employment policy.

The recommendation calls for special programs to promote equality of opportunity and treatment as well as the opportunity for membership in youth or trade union organizations, and establishes formal procedures for appeals by participants against recruitment decisions or conditions of service. The programs are to be administered without discrimination and are "to include the safeguarding of human dignity and the development of the personality and a sense of individual and social responsibility." Standards for participation, and for the content of the programs and conditions of service, are set out. Such programs are stated to be of an interim character intended to meet current and pressing needs, but not to duplicate or prejudice other measures of economic policy or the development of regular vocational or educational programs. The final vote on the recommendation was 311 for, 0 against, and 26 abstentions the U.S. delegation voted unanimously for adoption.

The first discussion was held on a proposed recommendation concerning protection and facilities to be provided workers' representatives in the undertaking (that is, enterprise). If adopted, it would cover both trade union representatives and representatives elected by the workers in the establishment, and would contain an assurance that such varied worker representation does not undermine the position of the trade unions. The worker representatives would enjoy protection against prejudicial acts, such as dismissal because of their status as workers' representatives, or because of union membership or participation in union activities. Specific protective measures for workers' representatives are suggested where no such protection exists for workers generally. Facilities should be provided to workers' representatives in carrying out their functions. These facilities would depend on the industrial relations system of the country and of the establishment, and should not unduly affect efficient operation. The final vote on the proposed conclusions was 243 for, 27 against, and 15 abstentions. (The U.S. delegation voted for it.) Next year's conference will give the proposal second consideration and final determination of the content of the instrument.

Other resolutions

Five other resolutions received the conference's unanimous approval. However, a proposal for a study of "opportunities and social problems" raised by multinational undertakings failed of acceptance in the absence of a quorum. Employers' delegates opposed it, claiming that there was no evidence of attendant social problems.

1. The list of occupational diseases included in the Employment Injury Benefits Convention (No. 121) will be amended to include occupational deafness and other noise-induced disorders, illnesses resulting from the performance of work under compression, and infectious diseases contracted by the staff of medical services and laboratories.

2. The ILO was requested to strengthen its activities in the field of workers' education, particularly by promoting workers' education in developing countries through institutions operated by trade unions or other bodies having full support of workers' organizations.

3. Regarding the employment of older workers, the ILO was asked to coordinate current studies and projects concerned with the elimination of discriminatory practices in the employment of such workers, continuous vocational training or retraining enabling them to adapt to technological change, and examination of the effects of certain pension schemes on older workers' employment.

4. The importance of tripartite participation in the United Nations Conference on Human Environment, to be held in 1972, was stressed, and an ILO delegation will be sent to the conference.

5. In view of new technology, machinery, and materials, the ILO was asked to update the Model Code of Safety Regulations drawn up in 1948 for the guidance of governments and industry.

Other actions

The Committee on the Application of Conventions and Recommendations gave the annual review of reports submitted by governments on ratification of conventions, and of the observations by the Committee of Experts on the Application of Conventions and Recommendations. The Committee reported on the initial success of a new procedure under which problems encountered by governments in applying ratified conventions are dealt with through direct contacts with a representative of the Director-General of the ILO, and called for further development of this procedure. To ensure continuance or enhancement of the role of workers' and employers' organizations in implementing conventions and recommendations, the Committee endorsed study courses on international labor standards already begun for workers, and to be available to employers on request. Cases of progress by governments in seeking to conform to conventions were noted, along with the more serious cases of noncompliance. Also considered was a general survey prepared by the Committee of Experts on four recommendations concerning the health, welfare, and housing of workers. Cooperation of governments and the debate in the Committee were cited as confirmation of the "vitality of the ILO's standard-setting activities, in all their aspects, and the general concern that international standards should lead to improvements in social conditions at the national level."

ILO structure

Major and knotty questions relating to the structure of the ILO, under study for several years, remained unresolved when the conference adopted the recommendations of the Committee on Structure that they be referred to the governing body for further examination and a report to next year's conference. The leading issues here pertained to the governing body's composition. They included the constitutional provisions reserving 10 of the 24 nonelective government seats for states of chief industrial importance, and the requirement that at least five states of chief industrial importance ratify a constitutional amendment before it goes into effect. Also under attack, from the Communist countries, is the refusal of the employers' group to accord representation in the governing body to "representatives of socialist management," which involves the question of the autonomy of the three groups. A further issue relates to demands that the conference be given a voice in the selection of the Director-General, rather than having the appointment made by the governing body.

Mr. Edward Neilan, U.S. employer representative and Employer-Vice-Chairman of the Committee on Structure, questioned whether a major-

ity of the ILO membership "is in favor of any particular structural change, though," he said, "I do agree that when you take them all together there is a decided body in favor of structural changes." He cited statements in the report that 21 of the 24 employer members of the governing body were affiliated with organizations in their own countries which included substantial numbers of nationalized and socialized industries. Contrasting these countries where management autonomy existed, Mr. Neilan cited from Soviet press reports of governmental interference with rights granted to Soviet enterprises. He stated, "In fact, these governing body members may represent socialist managers somewhat better than the socialist managers can represent themselves." He viewed Soviet efforts as being directed at destroying the autonomy of the Employers' group.[8]

In conclusion, it can be said that it is the sustaining drive of the tripartite system that makes for accommodation in the face of so many sources and pressures of diversity. It is the general awareness that this system has been an important world-wide foundation for continuing adaptation to changing economic and social conditions that has assured that accommodation overshadows diversity. □

———*FOOTNOTES*———

[1] The other candidate proposed was B. F. Ople, the Philippine Secretary of Labor. The result was 286 votes for Mr. Manickavasagam, 84 for Mr. Ople.

[2] Members of the delegation were: *Government:* Delegates—George H. Hildebrand, Deputy Undersecretary of Labor for International Affairs, and George P. Delaney, Special Assistant to the Secretary of State and Coordinator of International Labor Affairs; Substitute Delegate, Allen R. DeLong, Assistant General Counsel, Department of Commerce; Congressional Advisers—Representatives William H. Ayres, John H. Dent, John M. Ashbrook, Dominick V. Daniels, John N. Erlenborn, Edith M. Green; Advisers—Joseph P. Goldberg, Philip H. Kleinberger, Margaret Pallansch, Edward B. Persons, Ben P. Robertson, Roger C. Schrader, Laurence Silberman, and Sylvia R. Weissbrodt, *Employers:* Delegate—Edwin P. Neilan, Chairman of the Board, Bank of Delaware; Advisers—M. A. Darling, Jr., Leonard Janofsky, Lee Knach, Webb Neely, Robert T. Thompson, and William Van Meter. *Workers:* Rudolph Faupl, International Representative, International Association of Machinists and Aerospace Workers; Advisers—Max Greenberg, Lane Kirkland, Harry D. Sayre, Bertrand Seidman, Floyd C. Smith, and Miles C. Stanley.

[3] *ILO Report of Director-General*, Part 1, Poverty and Minimum Living Standards; The Role of the ILO, Geneva, 1970, p. 3.

[4] Ibid., p. 42.

[5] The resolution stated that the protection of civil rights as such comes within the purview of the United Nations on the basis of the Universal Declaration of Human Rights and the International Covenants on Civil and Political Rights.

[6] The vote in the Conference was 100 for, 0 against, and 163 abstentions. The Greek Government delegation withdrew from the Conference when the Resolutions Committee approved the resolution by a vote of 10,194 for, 8,906 against, and 2,200 abstentions.

[7] Seafarers are excluded, however, and a resolution was adopted suggesting that present standards for seafarers should be examined under the special ILO maritime machinery.

[8] The AFL–CIO Executive Council has recently reacted sharply to the appointment of a representative of a Soviet bloc country as assistant director-general of the ILO after the June conference. Charging that this was a further build-up of Communist strength in the organization, the Council expressed its increasing concern over the use of the ILO as a political instrument, noting "that while the ILO still pays lip service to human rights, it has in fact turned a blind eye to the most blatant violations of basic freedoms in its member countries." The Council statement referred specifically to the failure of the conference to act on the resolutions on trade union rights in Greece and Spain, and the "head-in-the-sands approach to Communist violations of human rights." The AFL–CIO proposes to seek "the ILO return to its historic mission of defending human rights and workers' freedom everywhere in the world." See AFL–CIO *News*, August 8, 1970.

The NEA prepares for the 1970's

National Education Association reasserts teachers' right to bargain, strike; provides for professional negotiators

HARRY P. COHANY

"To BARGAIN or not to bargain" was a question which occupied the delegates at National Education Association conventions several years ago. Since the late 1960's, however, pressures from the competing American Federation of Teachers (AFL–CIO) and the actions of restless classroom teachers across the country have compelled the NEA to come to grips with economic demands, while at the same time maintaining what some consider fine semantic distinctions designed to please those committed to a "pure and simple" professionalism. At this convention, an association official, in taking credit for the recently signed Hawaiian collective bargaining bill, declared: "We are through playing semantic games."

The resolutions and debates at the 108th annual NEA convention, held in San Francisco from July 3 to July 7, did not fully bear him out. Thus, "professional negotiations" was still used rather than "collective bargaining," and "withdrawal of services" was substituted for "strikes." Yet few if any of the more than 7,000 delegates were in doubt as to what was meant and even fewer seemed disturbed over this turn of events as evidenced by the frequently routine adoption of policy statements dealing with these matters.

The NEA's new approach was made clear in the report of its executive secretary, Sam M. Lambert: "Two years ago I said to this assembly: The time has come to start *acting for* NEA instead of *reacting to* AFT. And, we have done precisely that. We have been building our own program and I am satisfied in my own mind it's better than anything our rivals can put on the road."

In support of this assertion, the Association's research department prepared data indicating that agreements were in effect in about 3,300 school districts during the 1969–70 school year, compared with 1,531 in 1966–67, when the first negotiation survey was made. As a result, 6 out of every 10 public school teachers are now employed in districts having negotiation agreements. Local affiliates of NEA represented more than 8 out of 10 teachers in these districts, the survey noted. During the last school year the number of teachers under NEA agreements increased by 176,000 as against a reported 22,000 for the AFT. These agreements covered not only salaries and working conditions, but typically also extended into such areas as class size, teacher load, recruiting, selection of textbooks, and use of teacher aides.

At the convention, further steps in aid of collective bargaining were made known to, or approved by, the delegates. In one of these steps, the NEA is actively seeking a Federal negotiation law which would provide for mediation and fact-finding to resolve negotiation impasses. A strike would be permissible in cases where the impasse machinery had failed to settle the dispute. Injunctions would be restricted to situations of "clear and present danger to the public health and safety." The proposed legislation would also allow the agency shop if agreed to by the parties (it is mandatory under the Hawaiian law). In the meantime, the delegates were urged to continue to work for the passage of similar laws at the State level.

Collective bargaining efforts will also be strengthened by the newly adopted UNISERV program which calls for one full-time professional for every 1,200 members, primarily to serve as experts in negotiations with school boards. As was explained to the delegates: "UNISERV will place a trained and skilled negotiator on the other side of the table, facing down the Board's hired gun, and working with expertise for teachers." In addition, the UNISERV representative will also carry on administrative as well as economic and political action programs. About 250 UNISERV representa-

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tives are to be in the field within the first year, to work in "unified" States, that is, those in which members are affiliated with the national, State, and local association. The number of units so serviced is expected to reach 1,200 soon.

A 1969 resolution, upholding the right to strike, was strengthened with these changes: ". . . no attempt shall be made by any member of the profession to provide for an instructional program during the withdrawal of services by a recognized professional organization. School boards should officially close schools when work stoppage is declared by the recognized professional organization." Delegates were assured that the term "professional organization" referred only to affiliates of the NEA.

Legal difficulties, however, have troubled the companion measure of invoking "professional sanctions"; that is, an alert that deplorable conditions exist in a particular school jurisdiction which thus stands condemned and should be shunned by educators (the NEA equivalent of "hot cargo"). A court case involving the Union Beach, N.J., Board of Education and the New Jersey Education Association held that the NEA's *Code of Ethics*, which requires an educator "not to accept a position when so requested by the appropriate professional organization" (Principle IV, 5), was an undue restraint on governmental authority and, thus, served an illegal purpose. To forestall further legal problems, the delegates voted to remove the above sentence from the *Code of Ethics*, but thereby admittedly weakened the effectiveness of sanctions.

Nevertheless, the strike will definitely remain a weapon in the NEA's arsenal, as was made clear by the incoming president, Helen Bain, a speech and English high school teacher from Nashville, Tenn.: "As teachers, we believe that strikes are distasteful . . . But the NEA has learned . . . that sometimes it is necessary to strike. And the NEA will be 100 percent behind them."

At the same time, however, the NEA realizes that such a militant stance is of little avail when agreements reached with a Board of Education cannot be implemented because taxpayers—as they have in ever-growing numbers—refuse to approve bond issues to aid in financing the agreements. One proposed solution to this problem would be increased Federal support for education. Another may lie in fiscally independent school systems; that is, those authorized to levy taxes. Although neither solution appeared very promising at the moment, the NEA went on record asking for a starting salary of $12,500 and a maximum for those with advanced degrees of $25,000–30,000 after "no more than 10 years."

Prospects for merger

Given the NEA's present posture on collective bargaining matters, what is the outlook for merger with the AFT? Executive secretary Sam Lambert saw the difference between the two organizations in these terms: "The newspapers sometime refer to NEA and its State and local affiliates as unions, and I admit that in some respects we do have some of the same outward appearances. You and I know, however, we haven't lost one bit of our interest in the welfare of children or in the quality of education they are getting." Then he added: "In addition, there is still one enormous and overpowering difference between the two organizations. The NEA is still a completely free, independent, self-determining organization. It has no entangling alliances, no debts to the plumbers or clothing workers, no encumbrances or obligations to other segments of the labor force or to management. We are free . . . ." Despite these obstacles, outgoing president George D. Fischer held out hope for a merger in "about 5 years," coming about gradually by mergers at the local level such as have taken place in Los Angeles, Calif., and Flint, Mich. The outlook for future mergers is cloudy, particularly since the merger in Los Angeles, which after a less than successful strike is under attack in the courts by dissatisfied NEA members. In any case, the merger issue was not presented to the delegates nor was it raised by them in the form of a resolution. Instead, two other issues evoked considerable debate: One proposal dealt with the calling and makeup of a constitutional convention to revamp the association's structure (approved in a roll-call vote by a slight margin) and the other with a resolution on withdrawal from Indochina (defeated after a heated exchange). In additional resolutions the delegates urged the prohibition of "voucher plans" but came out strongly for Federal funds for education to be "expended solely for the support of public schools . . . with no diversion of Federal funds, goods, or services to nonpublic elementary and secondary schools." A similar proposed restriction was narrowly defeated at the 1969 convention. □

An econometric model of worker compensation changes

Equation explains overall wage movements reasonably well, but reveals instability when tested in some subperiods

WILLIAM R. BAILEY AND ARTHUR SACKLEY

CAN WAGE MOVEMENTS be predicted from changes in unemployment, consumer prices, and corporate profits?

This article presents the results of an investigation of changes, over a 20-year period, from 1949 to 1968, in average hourly compensation for the private nonfarm economy. The study was initially undertaken for the purpose of developing a wage forecasting equation. However, the development of a model for the determination of changes in wages serves multiple purposes. It provides a means of studying wage behavior, insight into wage trends that can serve as the basis for additional research, and a vehicle for projecting changes in wages.

Background of the study

The method of investigation used in this study is a variant of Phillips curve analysis which is based upon a postulated relationship between money wage rate changes and factors selected to represent the state of the labor market. The seminal study of this type by British economist A. W. Phillips found stability, for over a century, in the relationship between the percentage change in money wages and the unemployment rate in the United Kingdom.[1] According to the theory underlying the Phillips relationship, when the supply and demand for labor is out of equilibrium, the rate of change of wages will be roughly proportional to the unemployment rate—a proxy for the degree of disequilibrium. When economic activity quickens, unemployed resources diminish, and demand for labor forces up the price of labor at a faster rate. The reverse is postulated to occur when the unemployment rate rises.

Further development of this type of analysis has mainly taken the form of attempts to obtain a more complete explanation of wage movements by introducing additional explanatory variables such as profits and prices,[2] the type of bargaining process,[3] the level of new hires,[4] value productivity,[5] adjusted unemployment rates;[6] and by shifting temporal relationships and applying the analysis to different periods and industries. Given the multiplicity of variables, type of specification, industry coverage, and period of observation, the results, as might be expected, are diverse and often appear contradictory.[7]

In common with other formulations in this type of research, the model used here hypothesizes a relationship, specified in single equation form, between changes in wages and changes in certain labor market variables. The investigation in this article is limited to that portion of Phillips curve research dealing with the existence of a stable relationship between wage movements and movements of selected economic variables, especially the unemployment rate.[8]

Our study resulted in an estimated equation which by standard statistical criteria provides a reasonably good statistical fit over the period 1949 to 1968. However, further investigation revealed that this relationship was unstable among subperiods of this 20-year period. In particular, the model did not perform well in representing the course of compensation during the 1958–64 subperiod. Although the scope of our investigation was not adequate to support conclusive judgments, the finding of instability contributes further to questions which have been raised about the adequacy of a model of the Phillips type as an explanation of changes in compensation.

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Method of investigation

The general procedure for this investigation was to specify a single equation model, test the specification by means of ordinary least squares regression techniques, and examine the statistical properties. Many variables in various combinations and alternatives were tested. The preferred form was the one which was logical on conceptual grounds and yielded the highest coefficient of determination ($\bar{R}^2$) and the smallest standard error (S.E.). It associated change in compensation per man-hour in the private economy (dependent variable) with the civilian unemployment rate, the change in that rate, the rate of change in consumer prices, the rate of corporate profits, and changes in the Federal minimum wage.

The equation takes the form:

$$C_t = f(U_{t-1}, U'_t, P_t, R_{t-1}, M_t)$$

where

C= the percent change in compensation per man-hour in the private economy;
U= the reciprocal of the civilian unemployment rate;
U′= the first difference in the reciprocal of the civilian unemployment rate variable;
P= percent change in the Consumer Price Index;
R= the ratio of after-tax profits to gross corporate product; and
M= a dummy variable for the effect of changes in the Federal minimum wage.

Observations used in this investigation ran from the second quarter of 1949 to the fourth quarter of 1968.[9]

The dependent variable (C)—the percent change in compensation per man-hour for employees in the private nonfarm economy—includes wage and salary payments plus supplements to wage and salaries which are included in the national income accounts.[10] The specific form of this variable is the percent change in compensation in a given quarter from the same quarter in the prior year.

Two variables were specified to reflect labor market conditions: the reciprocal of the civilian unemployment rate (U) and the change in the rate (U′). The first variable is specified as the reciprocal of a 4-quarter average, lagged one quarter to reflect an anticipated delay in reaction to the changed labor market condition. The reciprocal specification was adopted to conform to an expected nonlinear relationship. The other unemployment variable (U′) is specified as the first difference in the unemployment rate variable.

The price change variable (P) was included to account for the effect upon wages produced when consumer price changes motivate the worker to maintain his real income or when they trigger escalator clauses, which are institutional devices for achieving the same objective. The price variable is specified as a percent change to one quarter from the same quarter in the previous year. The unlagged form proved superior to the lagged versions in the statistical tests.[11]

The rate of corporate profit represents the ability of employers to grant wage increases. It is also an indicator of market power on the part of the employer. The version specified in the model (R_{t-1}) is the 4-quarter average of the ratio of after tax profits to gross corporate product, lagged one quarter.

The other independent variable in the function is a dummy variable (M_t) to account for the effect on wages of a change in the Federal minimum wage. It takes the value of 1 in the 4 quarters including and immediately following the institution of a general change in Federal minimum wages and zero otherwise.

Other variables were considered for the equation, among them a dummy variable for the period of Federal wage guideposts, changes in the rate of employer contributions for social insurance, a job-opening-to-employment ratio, changes in the amount of bargaining activity, overtime hours, and the lagged value of the dependent variable. With the exception of the last, all variables were rejected because they made little or no contribution to the effectiveness of the model in explaining wage changes. The last—the lagged value of the dependent variable—was rejected because the authors felt the model was sounder conceptually when it was specified entirely in terms of independent variables.

The form of the model that provided the best statistical fit is shown below. Values of the *t*

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statistic are shown in parentheses:

$$C_t = 0.1501 + \underset{(6.8)}{9.6983}\ U_{t-1} + \underset{(6.6)}{34.4031}\ U'_t$$

$$+ \underset{(10.1)}{0.4778}\ P_t + \underset{(2.9)}{0.1351}\ R_{t-1} + \underset{(4.7)}{0.7520}\ M_t.$$

$$\bar{R}^2 = 0.86 \qquad SE = 0.64 \qquad DW = 1.23$$

All variables are significant at the 1 percent level. Eighty-six percent of the change in compensation is associated with the behavior of the independent variables.

As an illustration of the application of the model, the actual values of the independent variables for 1969 can be inserted in the equation to produce a set of estimated values of the dependent variable. These estimated values can then be compared with the actual. For example, the equation is as follows for the first quarter of 1969:

$$C = 0.1501 + (9.6983)\ (0.2800) + (34.4031)\ (0.0082) + (0.4788)\ (4.8739) + (0.1351)\ (9.2792) + (0.7520)\ (0)$$
$$C = 6.7349$$

The estimated and actual values for the percent change in compensation per man-hour for the four quarters of 1969 are the following:

Estimated:	6.7349; 6.8046; 6.8038; 6.9195
Actual	6.9067; 6.9472; 6.9382; 6.2758

Tests of stability

Some additional insights were obtained by closer examination of certain analytical results. One matter of particular interest came to light; that is, the question of the stability of the relationship over time.

In examining the results of one of the interim forms of the model we noted certain differences in the pattern of the estimation error. Particularly, there was a rather persistent pattern of overestimation of the extent of wage change during the sluggish period from mid-1957 through mid-1964. Earlier periods displayed the opposite tendency, although not so markedly. These observations raised the question of whether the estimated relationship was stable. Therefore, we sought to determine whether the relation changed significantly and, if so, at what point in time.

For purposes of testing for the stability of the relationship, the model, as estimated, possesses one serious defect, that of serial correlation of the residuals as indicated by the Durbin-Watson statistic of 1.23. The method used to test for stability is the one developed by Gregory Chow, which assumes the serial independence of the residuals.[12] At least a part of the serial correlation in our model results from the use of overlapping 4-quarter periods in the specification of some variables. Therefore, we developed a model specified for 1-quarter periods which proved to be free of serial correlation. The use of single quarters also clarifies the timing of relationships and of changes in relationships.

The preferred form of the 1-quarter model (the one which provided the best statistical fit) differs in specification from the 4-quarter model. Nevertheless, the results of the following analysis seem clear enough to support reasonable inferences regarding the properties of the 4-quarter model.

The testing procedure was to estimate the model for the total period of observation and for various subperiods and test whether the model produced reasonably comparable estimates for the total period and each subperiod. Having performed this test for the 1-quarter model, we then estimated the 4-quarter model for significant subperiods and drew conclusions from the standard statistical properties of the estimates.

The 20-year period, 1949 through 1968, was divided into 4-year subperiods. The choice of subperiods was dictated by the joint objectives of defining economically meaningful periods and defining sufficiently short periods to identify points at which the relationship might have changed.

The equation used to test for the stability of the quarterly model for 1949–68 was as follows (t values in parenthesis)

$$C_t = -0.376 + \underset{(3.14)}{2.739}\ U_t + \underset{(4.06)}{0.427}\ M_t$$

$$+ \underset{(3.74)}{0.269}\ P_{t-1} + \underset{(2.27)}{0.069}\ R_{t-1}$$

$$\bar{R}^2 = .48 \quad SE = .43 \quad DW = 1.97$$

in which:

C = the quarterly change in compensation per man-hour;

U = the reciprocal of the quarterly unemployment rate;

Table 1. Comparison of results of 4-year subperiod tests of the stability of the 1-quarter model regressions

Period	Intercept	Coefficients of the independent variables				Coefficient of determination ($\bar{R}^2$)	Standard error (S.E.)	F value [1]
		Reciprocal of unemployment rate (U_t)	Dummy for change in Federal minimum wage (M_t)	Consumer price change (P_{t-1})	Corporate profit rate (R_{t-1})			
1949–52	−1.3565	6.7048 (2.2)	1.4997 (4.8)	0.2660 (1.6)	0.0447 (0.5)	0.77	0.51	12.689
1953–56	−0.8287	1.7837 (1.9)	0.7557 (4.2)	−0.1227 (−0.82)	0.1370 (2.0)	0.66	0.27	8.183
1957–60	1.4040	8.2200 (1.3)	0.1540 (0.31)	−0.0401 (−0.12)	−0.2104 (−0.83)	[2] 0	0.45	0.839
1961–64	−0.3027	−10.5062 (−0.38)	0.0266 (0.11)	−0.1834 (−0.33)	0.3515 (0.44)	[2] 0	0.45	0.150
1965–68	−3.4806	16.0432 (1.7)	0.0667 (0.12)	−0.0029 (−0.006)	0.0751 (0.23)	0.33	0.47	2.831

[1] Critical value of F at the 5-percent level is 3.48.

[2] The determination ratio (R) and the determination ratio adjusted for degrees of freedom ($\bar{R}^2$) are computed as follows:

$$R^2 = \frac{\text{regression sum of squares}}{\text{total sum of squares}}$$

$$\bar{R}^2 = 1 - \frac{\text{residual variance}}{\text{total variance}}$$

When the correlation is low enough, $\bar{R}^2$ may actually assume a negative value. This happened in these two periods, and the value was arbitrarily set at zero.

NOTE: Numbers in parentheses are t values.

M = a dummy for changes in the minimum wage;

P = the quarterly percent change in the Consumer Price Index; and

R = the quarterly corporate profit rate.

The estimated equations for the five subperiods are shown in table 1. The results, by standard criteria, are very poor except for the first two periods. On the whole, there is a marked inconsistency in coefficient signs and significance tests. At least part of this result may be due to the small number of observations in each subperiod, but the conclusion of inconsistency is inescapable. The most interesting feature is the complete failure of the model to account for wage changes in the 1957–60 and 1961–64 periods.

The test of stability of the fitted relation consists of a test of the hypothesis that the coefficients of the relation fitted for the whole period and for various subperiods are equal, that is, $b_0 = b_1 = b_2$ where the b_i are, respectively, vectors of coefficients for the whole period and for two subperiods comprising the whole. The test is an F test on the sums of squared residuals (SSR).[13]

Tests of equality between each 4-year subperiod and the other 16 years of the full period are shown in table 2. It is interesting that the only period identified as inconsistent with the others was 1949–52, not 1957–60 or 1961–64.

To further test the stability of the postulated relationship, a new group of subperiods was defined to clarify the subperiod relationship. In particular, the period of sluggish economic growth from 1958–64 was defined as a subperiod because the behavior of the economy during 1957 seemed more consistent with that of the 1953–56 period. The results of the regressions are shown in table 3 and those of the interperiod stability tests, in table 4.

Although the results are not startling, they reinforce the idea that the relation does not hold for the 1958–64 period and that 1949–52 is still the source of a finding of inequality. The question remains as to why 1958–64 is not shown to be inconsistent.

Interpreting the tests

The logic of the stability test is that if the parameters of the relation in two subperiods differ significantly from one another, better statistical fits would be obtained for each period separately than for the full period. This superiority of fit will reflect itself in the residual sums of squares. The data indicate that the 1949–52 period is explained significantly better by the subperiod model. This is not surprising because this period was one of extreme changes in rates of compensation, and wage behavior during the

Table 2. Results of tests of equality between 4-year subperiods and the other 16 years of the 1949—68 period

4-year period	F value [1]	Conclusion
1949–52	4.004	Not equal.
1953–56	0.749	Equal.
1957–60	0.541	Equal.
1961–64	1.092	Equal.
1965–68	0.747	Equal.

[1] Critical value of F at 5-percent level is 2.35.

Table 3. Comparison of estimates for selected subperiods (1-quarter model)

Period	Intercept	Coefficients of independent variables				Coefficient of determination (R^2)	Standard error (S.E.)	F value
		Reciprocal of unemployment rate (U_t)	Dummy for change in Federal minimum wage (M_t)	Consumer price change (P_{t-1})	Corporate profit rate (R_{t-1})			
1949–57	−0.5269	3.5015 (2.9)	0.8441 (4.7)	0.2850 (3.2)	0.0526 (1.4)	0.64	0.43	16.176
1949–57 and 65–68	−0.8732	3.5289 (3.0)	0.6114 (4.7)	0.2653 (3.0)	0.0914 (2.4)	0.56	0.44	16.842
1958–64	1.3113	8.3202 (0.96)	0.1075 (0.64)	−0.1278 (−0.41)	−0.1984 (−0.81)	[1] 0	0.42	0.377
1949–68	0.3761	2.7387 (3.1)	0.4274 (4.1)	0.2962 (3.7)	0.0687 (2.3)	0.48	0.42	18.670

[1] See footnote 2 to table 1.

NOTE: Numbers in parentheses are t values.

period was influenced by a set of postwar circumstances that were probably more unusual than in any succeeding period.[14] The 1958–64 period is another matter, however.

The failure of the test to differentiate the 1958–64 period from the others is due to both the full period and the subperiod models producing equally bad results. The total lack of a relationship for the 1958–64 period ($R^2=0$) eliminates the possibility of obtaining a lower sum of squared residuals from a subperiod estimate. Thus, the stability test is inappropriate to this period. The significance tests and the determination ratio are more appropriate bases for judgment in this instance and indicate that wage behavior during 1958–64 was inconsistent with that of other postwar subperiods.

The 4-quarter model

Concern over the stability of the relationship grew out of our work with the 4-quarter model. The single-quarter construction was then adopted only to meet the demands of the stability test. With the results of these tests and some additional examination on the behavior of the 4-quarter model, some inferences could be made regarding the stability of the 4-quarter model. The latter was estimated for selected subperiods derived from the quarterly analysis, and the results, shown in table 5, are generally consistent with the finding of interperiod variability derived from the quarterly model.

Over the whole period from 1949–68, the variables explain 86 percent of the variation in compensation. All variables have the expected signs, and are significant at the 1-percent level. The results were slightly better for 1949–57; that is, a higher coefficient of determination, lower standard error, and less serial correlation.

The explanatory capability of the model deteriorates from 1958 to 1964. The unemployment variable becomes negative and only the coefficient for the profit variable is as significant as in the prior period. However, the standard error is low.

From 1965 to 1968, the coefficient for price change is significant at the 1-percent level. In estimates for this period, the standard error dropped sharply. Omission of the 1958–64 period produced marginally better results than estimates which included all observations. Values for all independent variables were significant.

Cautions and conclusions

These findings cannot be accepted without reservation, however. The theory from which the model is derived purports to explain changes in wage rates by selected conditions in the labor market. Such a relationship covers only endogenous changes in the unit cost of labor services. But measured wage changes also include the effects of exogenous elements of compensation, such as

Table 4. Results of tests of equality between selected subperiods, 1949—68

Subperiod 1	Subperiod 2	F value	Critical F value, 5-percent level	Conclusion
1949–57 and 1965–68	1958–64	1.74	2.35	Equal
1949–57	1965–68	1.34	2.35	Equal
1949–52	1953–57 and 1965–68	3.34	2.45	Not equal

Table 5. Comparison of estimates for selected subperiods, using 4-quarter model regressions

Period	Y intercept	Coefficients of independent variables					Coefficient of determination (R^2)	Standard error (S.E.)	F value	Durbin-Watson value
		Reciprocal of unemployment rate (U_{t-1})	Consumer price change (P_t)	Corporate profit rate (R_{t-1})	Dummy for change in Federal minimum wage (M_t)	Change in reciprocal of unemployment rate (U'_t)				
1949–57	0.6229	9.8587	0.5165	0.0838	1.2653	30.1695	0.92	0.63	73.3	1.75
		(4.3)	(9.9)	(1.21)	(4.5)	(4.9)				
1958–64	0.1481	−25.7843	0.5718	0.8361	0.0645	15.4816	0.30	0.53	3.0	1.41
		(−1.2)	(1.5)	(1.2)	(0.26)	(0.43)				
1965–68	−0.7607	16.5489	0.9595	−0.0693	0.0665	36.7414	0.94	0.36	44.8	1.76
		(0.84)	(2.7)	(−0.16)	(0.10)	(0.84)				
1949–57 and 1965–68	−0.6348	11.0243	0.4936	0.1656	1.0291	29.8592	0.89	0.64	81.2	1.31
		(5.2)	(10.0)	(2.6)	(5.0)	(4.8)				
1949–68	0.1501	9.6983	0.4788	0.1351	0.7520	34.4031	0.86	0.64	99.2	1.23
		(6.8)	(10.1)	(2.9)	(4.7)	(6.6)				

NOTE: Numbers in parentheses are t values.

changes in statutory minimum wage rates,[15] as well as the effects of industry shifts. Further, no account has been taken of factors which are endogenous to the economic system but exogenous in the timing of their effect upon wage changes, namely, the impact of major collective bargaining settlements, where the timing is dictated by contract provisions. There is, therefore, an element of inconsistency between the theoretical statements about wage changes and the data used to measure those changes. It is probable that some of the instability in wage-rate behavior is attributable to data problems of this type rather than to faulty specification of the model. Consequently, the validity of any conclusions in this paper depends on the adequacy of the wage measure.

The foregoing analysis demonstrates substantial instability in the relationships specified in our model. What are the implications of this instability for the analysis of wage changes?

The major point is that the variability in the model's performance is associated with significant variability in the behavior of the economy. The instability does not appear to be merely the result of natural variability among small samples. The subperiods for which analyses were performed all differ from one another in terms of rates of economic change, patterns of change, and differences in policies adopted to achieve economic stabilization. In particular, 1949–52 was a period influenced by wartime conditions and economic controls, and 1958–64, one of sluggish economic growth. Therefore, the instability observed in the model suggests either that there were changes in behavioral relations in the economy or that the model does not represent properly the existing behavioral relations between economic processes and wage change. These alternative explanations are appropriate subjects for further research.[16]

IN SUMMARY, a model has been developed which provides an approximation of wage changes, on the average, for the postwar period. This model specifies a relationship between changes in worker compensation and unemployment, changes in unemployment, changes in consumer prices, the level of profits, and changes in the Federal statutory minimum wage. However, our knowledge of compensation changes, as reflected in this model, cannot be considered satisfactory at this point. The relationship among the variables in the model was inconsistent over time, and it is a poor representation of the forces of change between 1958 and 1964. Research goals should be directed toward developing a model that represents more adequately the structure of the wage-change process. □

FOOTNOTES

[1] A. W. Phillips, "The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom," *Economica*, November 1958, pp. 283–99.

[2] George L. Perry, "The Determinants of Wage Rate Changes and the Inflation-Unemployment Trade-off for the United States," *Review of Economic Studies*, October 1964, pp. 287–308.

[3] Otto Eckstein and Thomas A. Wilson, "The Determinants of Money Wages in American Industry," *Quarterly Journal of Economics*, August 1962, pp. 379–414.

[4] Sara Behman, "Wage Determination Process in U.S.

Manufacturing," *Quarterly Journal of Economics*, February 1968, pp. 117–142.

[5] Edwin Kuh, "A Productivity Theory of Wage Levels—An Alternative to the Phillips Curve," *Review of Economic Studies*, October 1967, pp. 333–365.

[6] N. J. Simler and Alfred Tella, "Labor Reserves and the Phillips Curve," *The Review of Economics and Statistics*, February 1968, pp. 32–49.

[7] H. I. Liebling and A. T. Cluff, "U.S. Postwar Inflation and Phillips Curves," *Kyklos*, 1969, pp. 232–250, for a survey of results of prior Phillips curve studies of the U.S. economy.

[8] For a negative conclusion on this point, see Raltan J. Bhatia, "Unemployment and the Rate of Change of Money Earnings in the United States, 1900–1958," *Economica*, August 1961, pp. 285–296.

[9] This model closely resembles the one developed by George L. Perry in the article cited in footnote 2.

[10] The data for observations on this variable were obtained from the Division of Productivity Research, Bureau of Labor Statistics. They are seasonally adjusted.

[11] For other evidence supporting a coincident version, see Thomas F. Cargell, "An Empirical Investigation of the Wage-Lag Hypothesis," *American Economic Review*, December 1969, pp. 806–816. We, of course, recognized the probability of wage changes influencing price changes as well.

[12] Gregory Chow, "Tests of Equality Between Sets of Coefficients in Two Linear Regressions," *Econometrica*, July 1960, pp. 591–605.

[13] Ibid., p. 598. Letting

Q_1 = the sums of squared residuals for the full period,
Q_2 = the sum of the SSR from the 2 subperiods,
Q_3 = the difference between Q_1 and Q_2,
M = number of observations in subperiod 1,
N = number of observations in subperiod 2, and
P = number of independent variables;

then

$$F(P,M+N-2P) = (Q_3/P)/(Q_2/(M+N-2P)).$$

If F is greater than F_e the hypothesis $b_0 = b_1 = b_2$ is rejected.

[14] See Perry, *op. cit.*

[15] The dummy variable M in the model indicates that minimum wage changes are a significant influence; but, being a dummy variable, it does not quantify the impact of changes precisely.

[16] For additional discussion, see comments by Paul S. Anderson, Michael L. Wachter, and Adrian W. Throop, and reply by George L. Perry, in "Wages and the Guideposts," *American Economic Review*, June 1969, pp. 351–70.

Trade unionism in America

The 1970 edition of *A Brief History of the American Labor Movement* (BLS Bulletin 1000) continues a 20-year tradition of introducing its readers to the mainstreams of trade unionism in the United States. This latest edition updates by 5 years the third edition. It spans a period of almost 180 years, from the time of the first craft organizations of carpenters, shoemakers, and printers in 1791 through the formation of the Alliance for Labor Action in 1969. The *Brief History* discusses the influence of key leaders on union policies and activities and the significant developments in the organization of workers and in collective bargaining. And in a lengthy appendix, chronologically organized, it presents "Important Events in American Labor History."

Copies of the *Brief History* may be obtained from any of the regional offices listed on the inside front cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The price is $1.

Productivity in the major household appliance industry

Output per man-hour averaged 5.8 percent annually during 1958-69, compared with 3.4 percent for all manufacturing

JOHN E. HENNEBERGER AND HAZEN F. GALE

PRODUCTIVITY in the major household appliance industry [1] has been increasing rapidly. Output per man-hour in this industry went up an average 5.8 percent a year between 1958 and 1969—a rate far higher than the 3.4-percent rate for all manufacturing and higher than the rates for two-thirds of the 31 individual industries whose productivity the Bureau of Labor Statistics measures regularly.[2] As a result, the 1969 index of output per man-hour for major household appliance manufactures was nearly 90 percent above its 1958 level.

Productivity went up almost every year—even in 1960 and 1961, when output declined. Year-to-year increases ranged from over 14 percent in 1963 to less than 3 percent in 1965.

Output per man-hour grew much faster in the first half of the period than in the second. Productivity went up 7.9 percent a year between 1958 and 1963, as opposed to 3.6 percent a year between 1963 and 1969. (See table 1 and chart 1.) This pattern is typical of industry in general: while output may increase steadily throughout a business expansion, productivity generally goes up faster in the earlier than in the later stages.

The increase in output per man-hour in this industry is closely related to the increase in output. The output index for major appliances went up nearly 120 percent between 1958 and 1969, representing production increases in every year after 1961. The only declines in output came in 1960 and 1961 during a mild recession.

Productivity growth varied widely for the component industries of the major household appliance group. In the refrigerator and freezer industry output per man-hour grew fastest, and in cooking equipment the slowest. (See table 2.)

Both employment and man-hours in the major household appliance industry went up about 1 percent a year between 1958 and 1969. This slight growth represents a decrease in the first half of the period combined with an increase in the second half. The change in direction reflects the combined effect of output and productivity change.

	1958-63	*1963-69*
Output	6.1	6.6
Output per man-hour	7.9	3.6
Man-hours	−1.7	2.9

Productivity went up faster than output in the first part of the period, with the drop in man-hours. In the second half of the period, output outpaced productivity, with the increase in man-hours.

According to preliminary estimates, the industry had about 114,000 employees in 1969, up from 99,000 in 1958. Changes in total man-hours worked followed employment changes closely in most years, but there was a slight increase in annual hours worked per employee.

In contrast to most manufacturing industries, production workers in this industry accounted for an increasingly larger share of the total work force from 76 percent in 1958 to 81 percent in 1969. The increase resulted entirely from an increase in production worker employment (1.5 percent a year), but nonproduction worker employment declined. Therefore, the 5.2 percent average annual growth in output per production worker man-hour has not been as great as the comparable measure for all employees.

Employment expanded in cooking equipment and refrigerators, and declined in laundry equipment and other appliances.[3] There was no clear relationship between productivity growth and

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Table 1. Output per man-hour and related data in the major household appliance industry, 1958–69

[Indexes, 1958=100]

Year	Output		Related data		
	Per employee	Per employee man-hour	Output	Employees	Employee man-hours
1958	100.0	100.0	100.0	100.0	100.0
1959	108.4	109.0	116.5	107.5	106.9
1960	110.8	113.6	115.9	104.6	102.0
1961	120.1	121.0	114.6	95.4	94.7
1962	133.6	131.7	128.5	96.2	97.6
1963	150.5	150.4	142.7	94.8	94.9
1964	157.3	156.1	157.8	100.3	101.1
1965	163.0	160.2	170.5	104.6	106.4
1966	159.4	159.8	178.5	112.0	111.7
1967	168.2	170.6	181.7	108.0	106.5
1968[1]	179.7	179.4	200.9	111.8	112.0
1969[1]	187.0	186.7	215.8	115.4	115.6
	Average annual rates (percent)				
1958–69	5.9	5.8	7.1	1.1	1.2

[1] Preliminary.

employment growth; though the greatest growth in both categories took place in refrigerators, cooking equipment had a slow productivity increase and a relatively fast employment increase.

In the short run, output growth is usually a major factor in productivity growth; however, over longer periods of time, productivity increases can result in lower prices, which in turn stimulate demand and lead to greater output growth. In the major household appliance industry, the long-term trend seems to be true. Appliance prices declined while output and output per man-hour grew. Prices for other durable goods were rising at the same time.

The price decline partially reflects the high rate of productivity increase which contributed towards lower unit labor costs. The 1969 wholesale price index for major household appliances was about 7.5 percent below that of 1958, while the 1969 price level for all industrial commodities was over 13 percent above its 1958 level.

Price changes and productivity increases were inversely correlated for the industry's components. Prices of refrigeration equipment went down the most, just as its productivity went up the most; the 1969 price index for this product was about 18 percent lower than the 1958 index. Prices did not decline for all appliances. The price of cooking ranges went up about 6 percent between 1958 and 1969, corresponding to the relatively slow rate of growth in output per man-hour in this part of the industry.

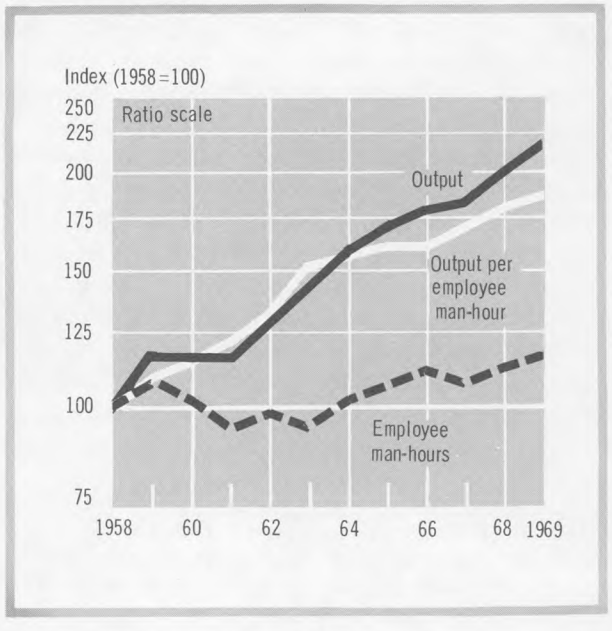
Prices began to move up in 1967 for most of the industry's products. This rise probably reflects the strong inflationary pressures in the economy that resulted in higher material costs and accelerating wage increases.

Factors affecting productivity

OUTPUT. As with the industry as a whole, there was a positive relationship between productivity and output growth for the industry's components. Output and productivity grew the fastest in refrigerators and freezers, the slowest in cooking equipment. Both output and productivity grew at moderate rates in laundry equipment and in other appliances.

Population growth and the new household formation that it fosters is a prime source of demand for major household appliances. These products, once considered luxuries, have come to be regarded as necessities; consequently, the percentage of households owning any or all of the appliances manufactured by the industry has risen steadily and output has responded accordingly.

Chart 1. Output per employee man-hour, output, and employee man-hours, 1958–69, in the major household appliance industry [1]



[1] SIC 3631, 3632, 3633, and 3639.

Table 2. Average annual rate of change in output, output per man-hour and man-hours in the major household appliance industry and subindustries, 1958–67

Percent]

	Output	Output per employee man-hour	Man-hours
Major household appliance industry	7.1	6.3	0.8
Cooking equipment	4.5	3.1	1.4
Refrigeration equipment	9.8	7.8	1.9
Laundry equipment	5.0	6.6	−1.6
Appliances, not elsewhere classified	4.9	4.8	0

Replacement demand is another major influence on appliance production. This factor becomes increasingly important as the ownership percentage, or saturation ratio, grows.[4] Replacements now represent a substantial share of the market for refrigerators, ranges, clothes washers, and water heaters. (See table 3.)

Like other consumer durable goods industries, the major household appliance industry is particularly responsive to changes in the business cycle—when times are bad people can often postpone buying new homes or replacing wornout appliances. Satisfying such pent-up demand makes output jump when the economy turns up again. For example, the household appliance industry was hit hard by the 1957–58 recession; the following year, it experienced its biggest increase in output during the period studied—16.5 percent.

Changes in the nature of the product also affect demand; output can increase even for products like refrigerators that have a high saturation rate. Refrigerators and freezers grew faster than any other major appliance industry, primarily because of a pronounced consumer preference for larger and more expensive models. Thus, the principal source of output growth in this industry has not been the greater number of units produced, but rather their increased size and new features.

CAPITAL EXPENDITURES. The relationship between capital expenditures and productivity growth is never very clear, but in general it is believed that an increase in capital outlays will eventually bring about an increase in productivity. The major household appliance industry seems to bear this out, with both expenditures for new plant and equipment and output per man-hour showing large growth rates between 1958 and 1967. Capital expenditures per employee in this industry rose at an annual rate of 13 percent over the period, going from $260 in 1958 to $820 in 1965, with a slight drop in succeeding years. Capital expenditures in manufacturing in general went up 7.8 percent per employee a year between 1958 and 1967.

The relatively large increase in capital spending was related more to expansion of capacity than to introduction of new technology. Since the new equipment and facilities were more efficient than the old, capital investment probably helped to reduce labor requirements.

Just as in the industry as a whole, capital investment growth in the individual parts of the industry corresponded to productivity growth: those industries that had large productivity increases also had large capital spending increases. Refrigerators and laundry equipment grew rapidly in both categories, while cooking equipment and all other appliances had low rates of growth for both capital investments and productivity.

CHANGES IN TECHNOLOGY. Most of the industry's capital spending went toward plant modernization, expecially after 1963. These facilities incorporated recent advances in technology and more efficient plant layouts. Advances in machines that form and cut metal resulted in greater speed and accuracy, more automatic controls and devices, and better adaptation to mechanized materials handling. Multistation machines and fabricating lines

Table 3. Replacement and saturation of major household appliances

Product	1958	1964	1967
	Replacement as a percent of total sales		
Dryers (gas and electric)	19	31	46
Freezers	15	30	34
Dishwashers	10	16	13
Ranges (gas and electric)	62	48	55
Refrigerators	77	56	84
Water heaters (gas and electric)	50	60	80
Clothes washers	73	60	72
Food waste disposers	12	38	34
	Saturation as a percent of households owning		
Dryers (gas and electric)	16	24	30
Freezers	21	26	28
Dishwashers	6	9	16
Ranges (gas and electric)	(1)	[2] 95–100	[2] 95–100
Refrigerators	98	99	99
Water heaters (gas and electric)	(1)	[2] 90	[2] 90
Clothes washers	91	87	88
Food waste disposers	8	13	16

[1] Not available.
[2] Estimated by the Bureau of Labor Statistics, based on data from **Merchandising Week.**

also made metalworking operations more efficient. One producer of laundry equipment installed a 13-station palletized transfer machine that performs drilling, tapping, milling, and other operations required in processing washing machine gear cases. Another large firm introduced an electronically-controlled production line consisting of nine separate metal-cutting, metal-forming, and joining operations for fabricating refrigerator and freezer doors.

Assembly machines, which locate component parts automatically and join them together, replaced manual operations in an increasing number of plants. Machines which measure and inspect work automatically have replaced manually-operated instruments in growing numbers. They save time, reduce errors, and require less skilled workers than does manual inspection.

Plastics were used more and more in appliance manufacturing. They offer lower tooling costs, fewer man-hours for secondary finishing operations, improved chemical and physical properties, and adaptability to a wide variety of fabrication techniques. Appliance components made of plastic are usually lighter; consequently, they require less labor handling between stations and in final assembly.

In the larger firms, computers took over a good deal of the increased office work brought about by expanding production. They are used in such operations as billing, inventory control, payrolls, and production scheduling. □

———*FOOTNOTES*———

[1] The major household appliance industry as defined in this report is composed of four subindustries, designated 3631, 3632, 3633, and 3639 in the 1967 *Standard Industrial Classification (SIC) Manual.* The primary products manufactured by each subindustry are as follows. *SIC 3631 (Household Cooking Equipment):* Establishments primarily engaged in manufacturing household cooking equipment such as stoves, ovens, and ranges (both gas and electric types). *SIC 3632 (Household Refrigerators):* Establishments primarily engaged in manufacturing household refrigerators and home and farm freezers. *SIC 3633 (Household Laundry Equipment):* Establishments primarily engaged in manufacturing laundry equipment such as washing machines, wringers, driers and ironers for household use. *SIC 3639 (Household Appliances, not elsewere classified):* Establishments primarily engaged in manufacturing household appliances, not elsewhere classified, such as hot water heaters, dishwashers, food waste disposal units, and floor polishers.

These four industries account for over 60 percent of the household appliance industry (SIC 363). Other components of the industry manufacture what are small household appliances or housewares: SIC 3634, electric housewares and fans; SIC 3635, household vacuum cleaners; and SIC 3636, sewing machines. These industries are not included in this report.

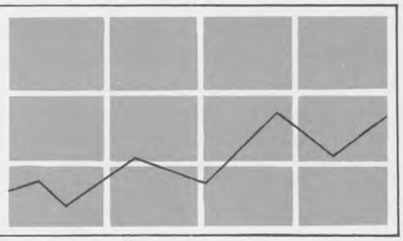
[2] A technical note describing the methods and procedures used in developing the indexes is available from the Bureau upon request. All average annual rates of change are based on the linear least squares trend of the logarithms of the index numbers.

[3] The refrigerator industry is the largest appliance industry; with 50,000 employees in 1967, it accounted for nearly half of the industry's total employment. Laundry equipment was the next largest industry, with 22,000 employees in 1967 representing 21 percent of the total. Cooking equipment and other household appliances accounted for 19 percent and 13 percent, respectively.

[4] Replacement and saturation data from *Merchandising Week.*

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.

The Anatomy of Price Change



THE SECOND QUARTER, 1970

THE RATE of inflation was reduced slightly in the second quarter, as the effect of the business slowdown in the past year broadened. The Implicit Price Deflator for private Gross National Product advanced at an annual rate of 4.1 percent—down from 5.3 percent in the first quarter, and the slowest since the third quarter of 1968. (See table 1.) The upward pace of the Consumer Price Index (CPI) lessened from an annual rate of 7.0 percent in the first quarter to 5.9 percent. This was slower than the increase last year in the second quarter but faster than in the second half. (See table 2.) Early in the third quarter, the CPI rise eased further to a 4.8 percent annual rate for the 3-month period ending in July, compared with 5.8 percent in June.

It is too early to conclude that the most recent deceleration represents the beginning of a return to price stability, since many factors other than changes in economic activity influence price behavior. However, some of the developments contributing to the deceleration were similar to those which occur when an inflationary period is drawing to a close.

One such development was the less rapid rise in unit labor costs as the improvement in output per man-hour partly offset the rise in compensation per man-hour. Productivity rose because private output moved up after 6 months of decline and man-hours were reduced sharply chiefly by lower employment. The last time employment fell as much as in the second quarter was in the latter half of 1962. In addition, the decline in employment checked the rise in compensation so that the advance in compensation per man-hour was more moderate than in recent quarters. Since the increase in unit labor costs was smaller than the rise in the Implicit Deflator, the employee share of private GNP decreased quite significantly.

Although increases were large for all major components of the Implicit Price Deflator, the rate of advance slowed considerably for producers' durable equipment and moderately for personal consumption expenditures. In the latter component, the slowdown for durables was substantial;[1] nondurables rose at about the same rate as in the first quarter—somewhat below the 1969 peak; and services continued to accelerate. Private construction and government purchases of goods and services (excluding government employees' compensation) also increased more rapidly than in the first quarter.

In the Consumer Price Index, both goods and services components decelerated. The slowdown in the goods component occurred primarily in foods and new cars. Increased supplies of meats, poultry, and eggs combined with a slight easing in demand contributed to the smallest rise for

Table 1. The anatomy of price change, 1969 and 1970

[Annual rates, compounded]

Item	Percent change from previous quarter				
	1969			1970	
	II	III	IV	I	II
PRODUCT DEFLATORS					
Private GNP deflator	4.9	4.5	4.7	5.3	4.1
Personal consumption expenditures	5.0	4.8	4.7	5.1	4.2
Private construction	6.4	7.8	2.7	4.5	7.9
Residential	5.7	4.4	1.2	3.8	5.2
Nonresidential	8.7	9.5	4.0	4.8	10.2
Producers' durable equipment	1.7	4.7	3.8	5.7	2.7
Government purchases of goods and services [1]	7.1	3.6	8.0	3.4	6.9
UNIT COSTS (ALL PERSONS)					
Private GNP deflator	4.9	4.5	4.7	5.3	4.1
Unit labor costs	7.1	6.5	7.9	9.6	1.9
Compensation per man-hour	5.9	8.2	8.8	6.8	5.1
Output per man-hour	−1.1	1.6	0.8	−2.5	3.1
Unit nonlabor costs	1.5	1.1	−0.8	−2.0	8.2

[1] Excludes services of government employees.

Prepared by Toshiko Nakayama of the Division of Consumer Prices and Price Indexes, Bureau of Labor Statistics.

grocery store foods in almost 2 years. On the other hand, charges for restaurant meals, which includes cost of services as well as foods, continued to accelerate. Despite the second quarter slowdown, grocery store foods were still more than 6 percent higher than in the second quarter of last year. Restaurant foods were 8 percent higher.

Although the rise in new car prices slowed substantially, the durables component in the Consumer Price Index accelerated primarily because of the sharp advance in used car prices. Part of the difference in the behavior of the durables component in the Consumer Price Index and in Personal Consumption Expenditures in the second quarter can be attributed to the different treatment of used car prices in the two price measures.[2] Higher used car prices stemmed partly from the unusually strong demand this spring for older model cars. Despite the large increase, used car prices in the second quarter of this year averaged slightly below second quarter of last year. In contrast, home purchase prices, which are also treated differently in the two price measures, have contributed greatly to the rapid advance in the Consumer Price Index in the past year.[3] In the second quarter, the rise in home purchase prices moderated somewhat from the rapid pace of the past year. Among other major durables, appliances and furniture prices increased slightly more than in the first quarter. The increase for furniture, however, was considerably smaller than in the second quarter of last year.

Among nondurables other than food, cigarette and gasoline prices rose sharply. Since the upturn in gasoline followed a steady decline in the three preceding quarters, prices in the second quarter of this year were just slightly higher than in the second quarter of 1969. The rise in apparel prices was slightly slower than in the first quarter and significantly slower than in 1968 and 1969. Sluggish

Table 2. Percent change in prices for consumer goods and services, 1969 and 1970

[Seasonally adjusted, annual rates, compounded]

Item	Relative importance, December 1969			Quarter					3-month span ending—1970				
				1969			1970						
	CPI	WPI		II	III	IV	I	II	April	May	June	July	Aug.p
Personal Consumption Expenditures-Deflator				5.0	4.8	4.7	5.1	4.2	(1)	(1)	(1)	(1)	(1)
Consumer Price Index-all items				6.6	5.4	5.8	7.0	5.9	6.0	6.0	5.8	4.8	(1)
Consumer goods	100.0		CPI	5.9	4.6	5.2	5.1	4.8	4.5	4.8	5.2	3.4	(1)
		100.0	WPI	5.4	3.4	5.9	4.8	−0.9	0.3	−0.2	−2.7	0.1	0
Nondurables	73.4		CPI	6.1	5.5	5.6	5.8	4.1	4.3	4.4	3.7	2.2	(1)
		76.7	WPI	6.8	4.2	5.9	5.9	−2.5	−1.4	−1.8	−3.8	0.4	−1.1
Food	35.6		CPI	6.7	6.9	7.3	9.1	3.2	4.9	3.6	1.3	0.2	(1)
		39.5	WPI	9.1	4.4	9.7	8.7	−8.6	−6.3	−6.7	−11.1	−0.6	−1.4
Nondurables except food	37.8		CPI	5.1	4.3	4.3	3.0	4.7	4.6	4.7	4.7	4.3	(1)
		37.2	WPI	3.1	4.1	3.6	2.6	3.1	2.1	4.4	3.0	3.0	0.9
Apparel, less footwear	14.6		CPI	5.3	4.7	5.5	2.6	2.3	2.3	1.7	2.8	2.2	(1)
		10.0	WPI	2.0	6.6	5.5	3.0	2.4	3.7	2.9	1.7	0.1	−.6
Gasoline	4.6		CPI	7.4	−1.0	−0.4	−3.2	6.8	7.0	5.6	7.8	−1.7	(1)
		3.8	WPI	16.1	−3.3	−1.1	−7.8	−1.2	0	7.1	−11.7	−1.9	−15.8
Durables	26.6		CPI	5.2	2.1	4.2	3.2	6.1	3.1	7.1	8.1	7.5	(1)
		23.0	WPI	2.1	1.4	2.8	3.0	2.5	2.7	2.3	2.2	3.1	2.3
New cars	3.6		CPI	1.1	1.5	2.0	4.2	1.1	1.2	0.9	1.3	0.9	(1)
		10.3	WPI	1.9	−0.4	5.7	1.1	2.0	1.6	2.7	2.0	2.0	0.4
Furniture	2.2		CPI	8.4	4.4	4.6	3.0	4.7	5.0	5.2	3.8	2.3	(1)
		2.7	WPI	3.4	4.8	0.9	3.8	3.2	4.7	2.3	2.9	3.4	3.7
Appliances including radio and TV	2.5		CPI	1.0	1.6	1.4	1.8	2.1	2.3	1.8	2.3	1.3	(1)
		3.5	WPI	0	0.7	0.2	2.2	0.8	1.4	0.4	0.4	1.4	2.6
Services[2]	100.0	(1)	CPI	8.3	6.7	6.6	10.0	9.0	10.6	9.3	7.3	6.4	(1)
Household, except rent	40.9	(1)	CPI	11.0	8.8	9.5	11.5	11.5	15.4	12.2	7.1	6.0	(1)
Transportation	14.4	(1)	CPI	6.7	5.7	9.2	18.4	7.6	7.8	7.0	8.2	10.0	(1)
Medical care	14.6	(1)	CPI	9.5	7.7	2.6	7.3	9.4	9.7	9.3	9.2	8.7	(1)

[1] Not available.
[2] Total services, not seasonally adjusted.
p=Preliminary.

NOTE: Relative importances are for consumer goods portions of CPI and WPI. For all items in the CPI, consumer goods represent 63.8 percent and services represent 36.2 percent. CPI durables also include home purchases and used cars which are not included in WPI. For WPI, consumer goods represent 33.9 percent of all commodities.

sales in women's apparel continued to be an important factor.

At the wholesale level, price changes for consumer goods moderated during the second quarter. In June, both food and gasoline prices declined contraseasonally. Furthermore, except for new cars, increases for other goods were smaller than at the beginning of the quarter.

The CPI for services advanced 9 percent at an annual rate, compared with 10 percent in the first quarter. A more moderate rise than in the first quarter for local transit fares contributed greatly to the deceleration. In addition, home repairs, laundry services, and washing machine repairs were among the few services for which increases were somewhat slower than in the first quarter and over the past year. Since the second quarter of 1969, the CPI for services has advanced 8 percent, compared with 4.9 percent for commodities. Transportation and household services have risen over 10 percent and medical care services 6.7 percent.

Although the slowdown in the economy has had little effect on service prices thus far, it has apparently started to affect employment. The second quarter rise in employment in the service-producing sector was the smallest since early 1963. In another development, the rate of advance—based on a 3-month span—for household services moved down from 15.4 percent in April to 7.1 percent in June. This was due largely to the tapering off after April in the uptrend of mortgage interest rates, which, of course, has been a major factor in the sharp rise in the CPI services over the past year. □

———*FOOTNOTES*———

[1] Rising auto sales combined with relatively stable auto prices gave larger weight to the automobile component, thus slowing the rise of the durables. Changes in the deflator result from shifts in weights as well as from price changes, unlike the changes in the CPI which result from prices only as weights are fixed.

[2] For explanation of the differences between PCE and CPI, see "Price changes in the first quarter of 1969 in perspective," *Monthly Labor Review*, July 1969, pp. 20–30, reprint No. 2628.

[3] For a discussion of home purchase in the CPI, see "Trends in home ownership and rental costs," *Monthly Labor Review*, July 1970, pp. 26–32.

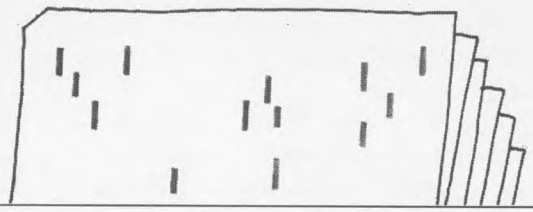
Occupational choice and job openings

As American industries continue to grow larger, more complex, and more mechanized, fundamental changes will take place in the Nation's occupational structure. Furthermore, occupations will become more complex and more specialized. Thus, an imposing and confusing number of occupational choices is provided to individuals who are planning their careers. An individual, in examining the vast number of choices, should first look at broad groupings of jobs that have similar characteristics such as entrance requirements. . . .

In considering a career, young people should not eliminate occupations just because their preferences will not be among the most rapidly growing. Although growth is a key indicator of future job outlook, more jobs will be created between 1968–80 from deaths, retirements, and other labor force separations than from employment growth. . . . Replacement needs will be particularly significant in occupations which have a large proportion of older workers and women. Furthermore, large occupations that have little growth may offer more openings than a fast growing small one. For example, among the major occupational groups, openings for operatives resulting from growth and replacement combined will be greater than for craftsmen, although the rate of growth of craftsmen will be more than twice as rapid as the rate of growth for operatives.

—*Occupational Outlook Handbook, 1970–71 edition* (BLS Bulletin 1650, 1970).

Research Summaries



WAGES IN MOTOR VEHICLE AND PARTS PLANTS

GEORGE L. STELLUTO

STRAIGHT-TIME EARNINGS of production and related workers in motor vehicle manufacturing plants averaged $3.82 an hour in April 1969 compared with $3.24 for those in plants making motor vehicle parts, according to a Bureau of Labor Statistics survey. Virtually all workers in the motor vehicle industry were covered by collective bargaining agreements with the United Auto Workers; four-fifths of the workers in parts plants were covered by agreements, usually with UAW.

Men made up over nine-tenths of the 605,556 production workers in motor vehicle plants and four-fifths of the 226,946 workers in parts plants. Incentive pay systems applied to few workers in the motor vehicle industry, compared with about three-tenths in the parts industry. In both industries, a large majority of the workers were in the North Central region—four-fifths in vehicles and seven-tenths in parts.

Motor vehicles

The level of straight-time hourly earnings for production workers in motor vehicle plants in April 1969 ($3.82) was 32 percent above the average recorded in a similar Bureau survey in April 1963.[1] General wage increases—typically in the form of annual-improvement increases, cost-of-living adjustments, and special increases for skilled trades—accounted for a large part of the increase in average earnings during the 1963–69 period. The latest wage adjustments under major collective bargaining agreements expiring in September 1970 were an 8-cent-an-hour cost-of-living adjustment in October 1969 and a 3-percent annual-improvement factor increase in November 1969. These adjustments are not reflected in data for the current survey.

Workers in Michigan, about half of the industry's work force, averaged $3.83 an hour in April 1969—the same as workers in the rest of the North Central region who made up another three-tenths of the production workers. Averages for workers in the South and West were $3.73 and $3.74, respectively. Part of the relatively small variation in regional averages was due to differences in occupational staffing among the regions.

Average hourly earnings ranged from $3.37 for janitors to $5.58 for die-sinkers (drop-forge dies), among the occupations selected for separate study. Major and minor assemblers, together about one-fifth of all production workers, averaged $3.62 and $3.52 an hour, respectively. Individual earnings for a majority of the workers in nearly all jobs surveyed were within 2 percent of the nationwide averages for the occupations.

All companies covered by the survey provided paid holidays, 10 or 11 days a year, and paid vacations, as well as health, insurance, retirement, and supplemental unemployment benefits.

Motor vehicle parts

The April 1969 level of earnings for production workers in motor vehicle parts plants ($3.24 an hour) was 25 percent above the level recorded in the Bureau's April 1963 survey ($2.59). Similar increases were recorded in the Northeast and North Central region, whereas average earnings rose 31 percent in the South during the 6-year period.

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Workers in the North Central region, largest in terms of industry employment, averaged $3.39 an hour in April 1969, compared with $3.27 in the Northeast and $2.39 in the South. As indicated in table 1, earnings levels also varied by industry branch and among four North Central areas studied separately.

Averages for the occupations studied separately ranged from $2.62 an hour for shipping packers to $4.29 for maintenance sheet-metal workers. Averages for assemblers, numerically the largest occupation studied, varied by degree of skill and responsibility—$3.52 for class A, $3.11 for class B, and $2.77 for class C. Earnings of individuals in the same occupation and area varied considerably, unlike the motor vehicles industry.

All establishments visited during the survey provided production workers paid holidays, usually 9 or 10 days annually, and paid vacations. Provisions for retirement pension benefits and various types of insurance, for example, life, hospitalization, surgical, and medical, were also widespread in the industry.

The survey of *motor vehicles* included data for all automotive operations of the four major passenger car manufacturers, including motor vehicle parts operations, with the exception of the truck division of one firm and the steel and glass operations of all companies. The *motor vehicle parts* survey covered establishments with 50 workers or more and primarily engaged in manufacturing metal parts for motor vehicles. A more comprehensive account of the survey will be presented in a BLS bulletin to be issued in a few months. □

Table 1. Number and average straight-time hourly earnings of production workers in motor vehicle parts plants, April 1969

Area and industry branch	Number of production workers	Average hourly earnings
United States	226,946	$3.24
Northeast	33,611	3.27
South	25,864	2.39
North Central	162,639	3.39
Chicago	10,041	2.79
Cleveland	8,541	3.83
Detroit	24,785	3.43
Toledo	6,639	3.71
Motor vehicle parts and accessories	133,690	3.36
Automotive stampings	34,531	3.16
Pistons, piston rings, and carburetors	25,043	3.15
Electrical engine parts	15,737	2.83

[1] See L. Earl Lewis and Frederick L. Bauer, "Wages in Motor Vehicle and Parts Plants, April 1963," *Monthly Labor Review*, February 1964, pp. 161–167.

CHARACTERISTICS OF HOUSEHOLD WORKERS

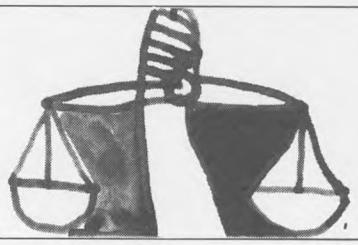
THE Social Security Administration obtains information on household workers as a byproduct of the employer reporting system. Data for household workers in 1965 show that about 1.25 million employers reported taxable household wages of $1.2 billion for 1.4 million workers.

Study of the data reveals significant characteristics of household workers. For instance, 9 out of 10 household workers were women, compared with 4 out of 10 among all wage and salary workers. More than half of the household workers were Negro, and 90 percent of these Negro workers were women. The median age was 52, compared with 37 for all wage and salary workers.

Household workers averaged $800 in wages annually, but all wage and salary earners averaged $3,100. Less than 4 percent of the household workers had taxable wages of $3,000 or more from domestic employment; for more than two-thirds of them, earnings from household employment were under $1,000. This earnings pattern is undoubtedly influenced by the part-time nature of the work and the absence of minimum wage laws applicable to domestic employment. Four out of 5 household workers had no other type of employment covered by the social security program, and about half of the workers earned fewer than 4 quarters of coverage in domestic work.

Detailed information on the characteristics of household workers may be found in Herbert R. Tacker, "Household Employment under OASDHI, 1951–66," *Social Security Bulletin*, June 1970, pp. 10–17. □

Significant Decisions in Labor Cases



Retirees and union bargaining

A RECENT RULING by an appellate court held that a trade union ceases to represent an employee when he retires and begins to draw benefits under union-negotiated pension provisions. If an employer wishes to modify these benefits, he may do so upon reaching a direct understanding with the retiree. He is not legally obligated to take the matter up with the union, because retired workers are no longer "his employees" within the meaning of the National Labor Relations Act, nor are they members of the bargaining unit to which they belonged as active employees. Retirement "is a complete and final severance of employment."

The ruling on employer-retiree relationship was enunciated in *Pittsburgh Plate Glass Co.*[1] by the U.S. Court of Appeals in Cincinnati. It supersedes a contrary decision of the National Labor Relations Board in this case last year,[2] when the issue came before the Board for the first time since the enactment of the act in 1935.

In the present situation, the union asked the company to renegotiate the existing agreement so as to provide retired workers with benefits not available under the newly enacted Medicare law. The company rejected the request and challenged the union's right to bargain for retired employees. It then addressed letters to individual retirees, announcing that they could withdraw from the union-negotiated health insurance plan and, instead, receive from the employer a contribution of $3 a month toward additional Medicare premiums. Some retirees accepted the offer. Asserting the right to bargain over changes in the health insurance plan, the union filed charges with the NLRB.

Upholding the union's position, the Board said that retired workers were "employees" within the meaning of the law; "bargaining about changes in retirement benefits for retired employees is . . . within the contemplation of the statue because of the interest which active employees have in this subject;" and the employer's rejection of the proposal to renegotiate was an unlawful refusal to bargain.

The court of appeals disposed of the Board's conclusions by giving the statutory provisions and past judicial opinions a straight-and-narrow reading. It pointed out that "The statute [section 8(a)(5)] plainly provides that it shall be an unfair labor practice for an employer 'to refuse to bargain collectively with the representatives of *his employees*. . . .' "[3] (Court's emphasis.) But who were "his employees?"

A Supreme Court statement on this subject indicated the answer: "One aspect of [determining who 'his employees' are] is covered by section 9(b) which provides for the determination of the appropriate bargaining unit."[4] Hence, "his employees" are the members of the bargaining unit. Here the question arose, who was in the bargaining unit?

In this case, the unit was certified as composed of "[a]ll employees of the employer's [business] working [on] hourly rates, including group leaders who work on hourly rates. . . ." Retired employees were not mentioned in this definition. "[T]he Board certified a bargaining unit composed only of presumably active employees," the appellate court said, adding, "In no prior case where the issue was raised did the Board hold that a retiree was in such a unit, or entitled to vote in an election." The opposite was true. The court recalled the Board's own statement from a distant past [5] that—

> We have considerable doubt as to whether or not pensioners are employees within the meaning of section 2(3) of the act, since they no longer perform any work for the employers, and have little expectancy of resuming their former employment. In any event, even if pensioners were to be considered employees, we believe that they lack a substantial community of

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Prepared by Eugene Skotzko of the Office of Publications, Bureau of Labor Statisitcs, in consultation with the Office of the Solicitor of Labor.

interest with the employees who are presently in the active service of the employers.

Clearly, the court was puzzled by the Board's reversal of its stand in the present situation.

As already stated, the NLRB had argued that retired employees should be considered as members of the bargaining unit for the purpose of renegotiating their benefits, because the subject "vitally affects" active employees in the bargaining unit in essentially three ways:

First, in the Board's language, "the union and current employees have a legitimate interest in assuring that negotiated retirement benefits are in fact paid and administered in accordance with the terms and intent of their contracts." "We agree," replied the court of appeals; but "the issue in this case is not whether contract benefits can be legally enforced, but whether contract benefits for retirees must be reopened at the request of the union after the employees to whom these benefits are payable have retired."

Second, the Board had said, the active employees have a "selfish as well as compassionate interest" in the adequacy of retired employees' benefits "because of its inextricable relationship to and impact on the wages, hours, and working conditions of those actively employed in the bargaining unit." Again the appeals court agreed, but said, "Leaving aside their altruistic sentiments, what active employees are concerned about are *their own* retirement benefits. It is not necessary to extend the bargaining obligation to persons already retired in order to insure current employees the right to negotiate through their bargaining representative their own retirement benefits to take effect after their retirement."

Third, the changes in the retirees' benefits should be subject to mandatory bargaining, the NLRB had said, because they "affect the availability of employer funds . . . for active employees." "This [effect on the availability of funds] is of course true," replied the appellate court; however, "does this mean that all employer salaries, including those to supervisory and managerial personnel, are mandatory subjects which must be collectively bargained with the union? Moreover, all employer expenditures, from dividends to capital expenditures, affect, however obliquely, the availability of employer funds for active unit employees. Surely the Board does not contend that these are mandatory subjects of bargaining."

The contrast in basic attitude of the two judicial bodies to the issue of union representation for retired workers emerges from the following statements in their respective opinions in this case:

NLRB:

. . . The critical question is whether the [retirement] benefit is founded on employment—past or present. The health insurance plan here was negotiated for active employees to be enjoyed upon retirement, and its terms relate back to their active employment. For retired employees, the benefits paid to them in retirement are part of the return of their investment of a lifetime of labor. In some respects, an employee's retirement from active employment and his separation from the daily association with fellow workers is the very time when he is most vulnerable economically and most needs representation. This is the point at which his economic alternatives are most limited because of his age. It would virtually stand the act on its head to hold that his employer is free to deal with him unilaterally and that the union may not represent him with respect to changes in the very plan which it negotiated for him.

Court of appeals:

. . . The purpose of Federal labor legislation is to reconcile and, insofar as possible, equalize the power of competing economic forces within the society in order to encourage the making of voluntary agreements governing labor-management relations and prevent industrial strife. Its purpose is not artificially to create or manufacture new economic forces. Thus, the act 'leaves the adjustment of industrial relations to the free play of economic forces but seeks to assure that the play of those forces be truly free.' [6]

Retired employees have no economic or bargaining power within this system. Their financial security derives from past economic power pragmatically and prudently exercised. Once retirement benefits have been bargained for, earned, and become payable, the employer may not recant on his contractual obligation to pay them. Nor may retirees demand that they be increased. Changing economic facts pertaining to the employer's business or the general economy occurring after the employee retires cannot enhance or depreciate the value of his services or justify periodic postretirement negotiations. The employer cannot retroactively increase his prices to compensate for these increased benefits, or fund expenses. . . .

Moreover, retirees given the bargaining power would lose their economic security, for just as surely as an employer may increase benefits, in bargaining, he may take them away. Even if retirees were given the statutory power to periodically renegotiate pension benefits previously earned, the union would be an inappropriate bargaining vehicle. It is not at all unlikely that a union negotiator, presented with the opportunity to advance employees' wages at the expense of retirees' pensions, would choose to favor his constituents at the expense of the honorary members, who retain no voting power.

Replaced strikers as 'employees'

Permanently replaced economic strikers remain "employees" of the struck employer and members of the bargaining unit for as long as they "retain an expectation of future employment" by the same employer or "until they have surrendered their interest"—most likely by finding another job. In thus ruling (in *Pioneer Flour Mills* [7]), a Federal court of appeals upheld the NLRB's new policy (adopted in deciding this case) of including such permanently replaced strikers in the bargaining unit when the union's majority status is challenged.

Following a strike, the employer handled the matter of reemployment of the displaced strikers in a manner later found by the Board to be unlawful. For example, when some of the replacements departed, the company did not rehire displaced strikers to fill the vacancies but hired new workers—an act of discrimination under section 8(a)(3) and (1) of the National Labor Relations Act. Most important, the employer refused to deal with the union, claiming it had lost the majority status due to replacements.

When the dispute reached the Board, the employer said it had a good faith doubt that the union continued to represent a majority of its employees. The doubt, the company said, was based on the assumption, consistent with the Board's own policy, that displaced economic strikers are not to be counted in the test of the union's majority status. In the present case, however, the Board reversed its policy, and it was within its power under the law to do so.

A 1959 amendment to the act (section 9(c)(3)) clearly gives the permanently replaced economic strikers the right to vote in elections conducted within 12 months of the beginning of the strike, but under the Board's regulations that are "consistent with the purpose and provisions of this act."[8] In implementing this provision, the Board continued—until the present case—the old policy of excluding such replaced strikers from the bargaining unit in weighing the employer's good faith doubt that a union has a majority position.

The company countered the Board's reversal of policy with a contention that, first, the old policy had the effect of a "rule" and, as such, could be changed only in a manner prescribed by the Administrative Procedure Act; second, the reversal of the policy could not retroactively affect the company's refusal to bargain with the union after the strike, since that refusal was in good faith under the law as it existed—or as the company understood it to exist—at that time.

The court disagreed with these arguments. Regarding the Board's rulemaking power, the court cited the opinion of another court of appeals[9] that,

> [W]hen an administrative agency makes law as a legislature would, it must follow the rulemaking procedure . . . and when it makes law as a court would, it must follow the adjudicative procedure. . . . [W]hether to use one method of lawmaking or the other is a question of judgment, not of power.

As for the retroactivity of the change in the Board's policy, the court cited the Supreme Court's statement in *Chenery Corp.*[10] that "such retroactivity must be balanced against the mischief of producing a result which is contrary to a statutory design or to legal and equitable principles." The statutory design, stated in section 9(c)(3) of the act as congressional desire that permanently replaced economic strikers be permitted to vote in elections, has been carried out by the Board in various instances. It would now be a "mischief" not to apply—even though retroactively—the principle of participation in elections to the replaced strikers in the present case: "logic requires that such employees also be included in the [bargaining] unit when determining whether the union continues to enjoy majority status."

In support of its reasoning, the court pointed out that section 2(3) of the act defines the term "employee" as including any person "whose work ceased as a consequence of, or in connection with, any current labor dispute . . . and who has not obtained any other regular and substantially equivalent employment . . ."—a provision that has furnished ground for major judicial rulings upholding the replaced strikers' rights.[11]

The appellate court concluded, "[W]hether or not the company in good faith relied on earlier Board decisions, the Board drew the proper balance, and its bargaining order should be enforced." The retroactive application of the new policy and the order to the company to bargain, the court said, will not "unduly burden" the company, yet they will serve the purpose of restoring the status quo ante that was disturbed by the company's violations. □

———FOOTNOTES———

[1] *Pittsburgh Plate Glass Co.* v. *NLRB* (C.A. 6, No. 19875, June 10, 1970).

[2] *Pittsburgh Plate Glass Co.* and *Local 1, Allied Chemical Workers*, 177 NLRB No. 114, July 9, 1969; see *Monthly Labor Review*, October 1969, pp. 56–58.

[3] The NLRA's definition of "employee" is rather broad. Section 2(3) reads in part: "When used in this act . . . (3) The term 'employee' shall include any employee, and shall not be limited to the employees of a particular employer, unless the act explicitly states otherwise. . . ." The court here took note of this broad language and pointed out that it may apply to persons who have never been employees of a particular employer (such as the employees of a newly acquired enterprise) or who may become employees in the future (such as job applicants). But, it pointed out, for bargaining purposes the law (section 8(a)(5)) "explicitly states otherwise." In view of the Board's past distinction in this matter, the court was surprised at the NLRB's change of attitude in this case. It cited as an example the Board's opinion (in *Page Aircraft Maintenance, Inc.*, 123 NLRB 159, 163 (1959)) that "antidiscrimination provisions refer to 'employees' *generally*, whereas unlike these provisions, section 8(a)(5) contains specific language requiring an employer to bargain for '*his*' *employees*." (Board's language and emphasis.)

[4] *Phelps Dodge Corp.* v. *NLRB*, 313 U.S. 192 (1941).

[5] In *Public Service Corporation of New Jersey*, 72 NLRB 229–30 (1947).

[5] U.S. Supreme Court in *Phelps Dodge Corp.* v. *NLRB*, 313 U.S. 177, 183 (1941).

[7] *C. H. Guenther & Son, Inc.* (*Pioneer Flour Mills*) v. *NLRB* (C.A. 5, No. 27495, June 1, 1970).

[8] Section 9(c)(3) of the NLRA provides that "Employees engaged in an economic strike who are not entitled to reinstatement shall be eligible to vote under such regulations as the Board shall find are consistent with the purpose and provisions of the act in any election conducted within 12 months after the commencement of the strike."

[9] The opinion of Judge Friendly in *NLRB* v. *A. P. W. Products Co.*, 316 F.2d 899, 905 (C.A. 2, 1963). See also the landmark decision of the Supreme Court on the issue of rulemaking, in *NLRB* v. *Wyman-Gordon* (U.S. Sup. Ct., April 23, 1969), in *Monthly Labor Review*, July 1969, pp. 73–75.

[10] *Securities and Exchange Commission* v. *Chenery*, 332 U.S. 194.

[11] Cited were: *NLRB* v. *Fleetwood Trailer Co.*, 389 U.S. 375 (1967)—see *Monthly Labor Review*, January 1967, p. 61, for the appellate decision (C.A. 9) in this case; *Laidlaw Corp.* v. *NLRB*, 414 F.2d 99 (C.A. 7—1969); and *American Machinery Corp.* v. *NLRB* (C.A. 5, No. 27283, April 15, 1970).

Employment outlook for appliance servicemen

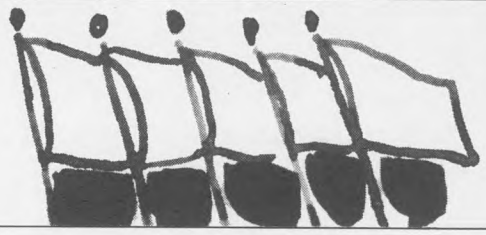
Employment of appliance servicemen is expected to grow rapidly through the 1970's. In addition to many thousands of job opportunities resulting from employment growth, about 4,200 job opportunities will arise annually to replace experienced servicemen who retire or die. Transfers of servicemen to other kinds of work will provide additional job openings.

The number of household appliances in use is expected to increase rapidly during the 1970's. Factors that will contribute to this growth include increasing population and family formations and rising level of personal disposable income. The demand for appliances also will be stimulated by the introduction of new appliances, some of which may be cordless like many automatic toothbrushes now in use, and by the improved styling and design of appliances to make them more attractive and easier to operate. In addition, more widespread use of appliances such as electric can openers, waste disposers, home clothes dryers, dishwashers, and knife sharpeners is expected.

Employment of appliance servicemen is not expected to increase as rapidly as the number of appliances in use. Although the automatic operation of some types of appliances has tended to make them more complicated, manufacturers are designing appliances with more durable components, and appliances that can be taken apart and repaired more easily. In addition, employers are increasing the efficiency of servicemen through more effective training.

—*Occupational Outlook Handbook, 1970–71 edition* (BLS Bulletin 1650, 1970).

Foreign Labor Briefs



Netherlands

A widening conflict between the Government and trade unions over wages and wage policy has disrupted the peaceful and cooperative industrial relations system that had existed since the end of World War II. The immediate issue concerns the passage in February 1970 of Government-sponsored legislation authorizing the Minister of Social Affairs to declare invalid individual contracts considered detrimental to the economy. The unions strongly oppose this provision, although they approve of a clause giving the Government authority in an economic emergency to extend the life of all collective agreements for a period of up to 6 months.

When the law was enacted, two of the three labor federations, the Netherlands Federation of Trade Unions and the Netherlands Catholic Workers' Federation, were so incensed that they boycotted the talks on national wages in the Social and Economic Council, a highly influential group composed of management, labor, and independent experts which advises the Government. The Council reports twice yearly on the economic situation and recommends general policy guidelines to the Government, which usually adopts them. The two federations also refused to participate in another advisory group, the Labor Foundation, which concentrates on such matters as hours of work, pensions, holidays, equal pay, and broad lines of wage policy. The third federation, the National Federation of Christian Workers, decided to continue its participation in the two advisory bodies, although its leaders declared they had "insurmountable objections" to the bill.

Ironically, the new law is based on an agreement reached within the Social and Economic Council in 1967. This agreement, which became effective on January 1, 1968, liberalized wage policy and permitted contracts to be made without predetermined guidelines. However, the Government could reject contracts which it considered detrimental to the economy. Labor became disenchanted with the agreement, feeling that the Government used its authority too frequently. The Government, on the other hand, wanted statutory authority over wages similar to that a 1969 law gives it over prices. The new law empowers the Ministry of Social Affairs to declare collective agreements invalid if they are not in the "socioeconomic" interest of the nation. The unions fear that the law threatens free collective bargaining. (Concern over inflation is widespread. The 7.5-percent increase in the cost of living index in 1969 was the highest since 1951, when the index rose by 12 percent.)

Union leaders insist that the legislation of February 1970 represents a hollow victory for the Government, claiming that without their cooperation in the Council and the Labor Foundation the Government's wage policy cannot succeed. Some commentators say that the Government may have to take a more active role in individual contract negotiations.

Employers, meanwhile, prepare for greater union militancy. Last February, the Netherland Employers' Federation and the Confessional Employers' Federation established a joint strike fund to assist employers who may be faced with strikes if they reject "unreasonable union demands." Under the plan, struck employers would receive a sum equal to the total amount of wages they normally would have paid to workers during the period of strike. This is the first time that a strike fund has been set up in the Netherlands.

Prepared in the Division of Foreign Labor Conditions, Bureau of Labor Statistics, on the basis of material available in early July.

Hong Kong

New labor regulations have been introduced by the Government and more are anticipated. Effective April 1, 1970, all manual workers, regardless of how much they earn, and nonmanual workers earning up to $248 (1,500 Hong Kong dollars) monthly, became entitled to 4 unpaid rest days a month. (Under previous legislation only women and young persons employed in industry received 1 free day in 7.) As an apparent compensation to big business, the Department of Labor lifted its prohibition against night work (11 p.m. to 6 a.m.) of women over 18 employed in industrial establishments. This experiment will last until June 1971 and will be limited to industrial plants employing over 500 workers on an 8-hour shift, including at least 100 women who participate in night-shift work. Previously, at least some U.S. electronic firms in Hong Kong had found a night shift impractical because of the ban on women's night work.

Another law recently enacted gives workers' wages a higher priority in the distribution of assets of bankrupt companies. Only taxes continue to have the same priority as workers' backpay. The Governor has the power to waive even the tax collection in order to protect the workers, and the maximum amount of wages in arrear a worker may claim has been raised to $974 (HK$6,000) from $487 (HK$3,000).

Argentina

Early in June, the military junta Government appointed Bernardo Bas, a labor lawyer, Governor of the Province of Córdoba. Bas has been an adviser to a number of Córdoba unions and was Minister of Labor in 1962–63.

In the current labor situation in the province, Bas' appointment was not without political significance. The Córdoba Regional General Confederation of Labor supported a strike by the Union of Mechanics and Related Automotive Transport Workers over a 1-month period beginning June 8. The mechanics protested the discharge of 900 auto workers in retaliation for the seizure of automotive plants by workers on June 2. These strikes continued until union and management reached a mutual agreement to submit to government arbitration.

The appointment of Bas was apparently a wise one for, although economic conditions worsened with large financial losses by industry and wage and salary workers in Córdoba, the governor allowed the worst strike since 1968 to work itself out.

Peru

A recent decree of the Military Government gave domestic workers social security, a 6-day workweek, guaranteed holidays, and dismissal pay—conditions of work and benefits they did not have in the past. As a rule, servants had completely depended upon the generosity and unilateral action of the employer: he treated them as members of his family while making them work hard; he gave them about half a day's leave per week, but no holidays or dismissal benefits; and he paid their medical expenses. They were not covered by social security.

Another action of the Government induced the Cerro de Pasco Corp., a leading mining concern in the country, to sign an agreement with 14 mineworkers' unions providing for additional benefits and higher pay. The agreement, reached after 10 months of negotiating, provides for pay based on the altitude at which the work is performed, increased overtime pay, higher benefits for work-related sickness and accidents, company payment of expenses of union negotiators during all stages of collective bargaining, and two additional paid holidays per year.

Both of these improvements, achieved as a result of the Government's action, in effect favored the Communist-oriented General Confederation of Peruvian Workers, which had demanded government intervention in these situations. The favor appeared to be at the expense of the Confederation of Workers of Peru, an affiliate of the strongly anti-Communist Popular American Revolutionary Alliance.

Syria

Some industrial establishments, particularly in the oil sector, faced with a surplus of manpower have been evading government regulations prohibiting dismissal of workers without prior approval of the Ministry of Labor and Social Affairs. They have been paying their workers full wages but not allowing them to report to work. In so

doing, employers have avoided any confrontation with the workers which would lead to protest and reprisals. Many workers have been happy to get full pay for no work, and have been able to take simultaneous employment elsewhere.

The Ministry of Labor and Social Affairs responded to this practice of management by issuing a legislative decree that bans this practice. The decree forbids employers to prevent their employees from actually working and, more specifically, forbids them to induce the workers' idleness by means of paid leave granted under circumstances not stipulated in the existing labor legislation.

France

Inflation was a major factor in wage developments during 1969 and early 1970. Continuous rise in prices and a corollary rise in wages fed the inflationary trend and caused an imbalance in the country's foreign trade.

Preliminary wage estimates put the average wage increase in private industry and trade in 1969 at 8.4 percent; in the public sector, the increases ranged 5 to 6 percent. The Government also agreed to a 1-percent wage adjustment effective January 1, 1970, to offset the 6-percent increase in retail prices in 1969.

To correct the economic imbalance, the Government devalued the franc by 11.1 percent in August 1969 and adopted a stabilization program, to last to the end of 1970, designed to reduce consumption and investment and to eliminate the foreign trade deficit. Although the Government's restrictive policy had a steadying effect on the economy, the inflationary pressures have not disappeared entirely. The latest figures avai able indicate that prices in 1970 will continue their sharp upward trend: in January 1970, consumer prices rose by 0.8 percent, and forecasts indicated little relief.

Inflation has been regarded with increasing concern by the trade unions and the Government. Fear that labor would bear the major burden of the economic stabilization program led to a number of wildcat strikes in the fall of 1969,[1] and the Government has since sought to come to terms with labor and avoid serious stoppages in 1970.

At the end of the first quarter of 1970, the Government's wage policy appeared to have satisfied major sections of labor and to have succeeded in lessening the incidence of strikes. Contracts have been signed with unions representing 600,000 public sector workers in the electricity and gas industries, the railways, and coal mining. The basic pattern is an increase of 6 to 7 percent, including bonuses and cost of living guarantees to insure a specific increase in purchasing power. These agreements, called *contrats de progres*, link wage adjustments to a formula based on the profitability of the enterprises, overall domestic production, and price developments. They cannot be broken by either side without notice. The Government has also given 500,000 civil servants pay raises totaling nearly 6 percent effective in April and October, with a provision for a possible cost of living adjustment in January 1971, thus avoiding a threatened strike. The civil service unions successfully resisted signing a formal contract with the Government.

The small part of 1970 private sector negotiations concluded by the end of May provided increases averaging 10 percent. In the north of France, for example, 35,000 steelworkers concluded an agreement, effective January 30, 1970, calling for increases of 8 percent for the lowest paid manual workers and 11 percent for highly skilled workers.

Labor relations have undoubtedly improved with the conclusion of these 1970 agreements, but the situation remains tense. The Communist-led Confederation Generale du Travail (CGT), the largest labor organization in France, has refused to sign any of the *contrats de progrès* and has called for strikes to bring about agreements that would tie wages directly to price increases and living costs. The CGT is alone in this demand. Other federations have so far refused to join it for any concerted action, but its future isolation within the labor movement is uncertain.

United Kingdom

An experimental factory system has been introduced at the Coldingly Prison in Surrey, England, intended, as Home Secretary James Callaghan said, to make the inmates feel "that they have a job worth doing and are not just rotting away." An additional goal is to make profits to be used for modernization of other prisons. If Coldingly shows

a profit, at least 12 prisons are to be equipped with similar factory systems within the next 5 years.

Three industrial workshops have been equipped at Coldingly: a laundry, which provides low-cost service to local hospitals; an engineering and machine shop, to make office equipment for the Government; and a sign shop, which will supply local councils and the Ministry of Transport with road signs.

Inmates participating in the program can be hired and dismissed, as well as promoted or demoted. Their wages, however, are only about $200 a year, compared with the $4,000 paid for similar work outside. The three shops now employ over 100 men, though eventually about 300 men are expected to be employed there on 40-hour weeks while serving their prison sentences.

The Trades Union Congress and the employers' Confederation of British Industry have agreed to cooperate with this program. Major unions for the building trades, transport, engineering and foundry workers have signed an agreement to accept participants in this program as card-carrying members after their release from Coldingly.

West Germany

The Federation of Trade Unions (Deutscher Gewerkschaftsbund—DGB), in close cooperation with the Adult Education Association, has initiated an education program designed to help workers expand their political awareness and to equip them for the exercise of their political rights and responsibilities. Known as the "Work and Life" program, it consists of week-long courses, evening and weekend seminars, and study trips and excursions. The program is carried out by approximately 10 regional and 250 local groups, with a central institute in Düsseldorf coordinating their activities.

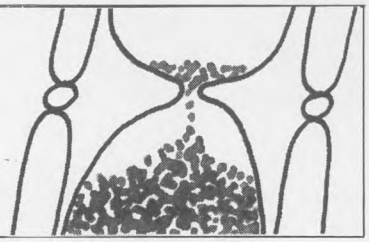
The basic political education course, which lasts a week and is the core of the Work and Life program, includes a broad treatment of politics, history, and economics, but emphasizes elementary techniques of analytical thought to help participants develop political judgment. The basic course usually is followed by short, concentrated courses, each keyed to a definite aspect of political life. The course work is supplemented by study trips and excursions to Eastern and Western European countries and to Israel. The Work and Life program also provides evening courses at work sites, usually lasting 5 days at a time, including discussions of broad political or economic issues or matters of concern to particular industries.

In addition to coordinating the activities of local and regional work-in communities, the central institute in Düsseldorf recruits and trains instructors for the program. Instructors recruited from the political parties, schools, universities, churches, and various associations supplement those provided by the trade unions and the Adult Education Association. One program, which receives financial support from the Federal Government, trains tutors who specialize in political education courses for young people. Training of Work and Life instructors is closely coordinated with the training activities of other national organizations engaged in political education.

An important function of the Work and Life organizations is obtaining paid leave of absence for workers wishing to avail themselves of the political education offered. A number of collective agreements already provide for such leave, but the program's goal is a Federal law that would make paid leave for educational purposes available to all workers as a matter of right. □

[1] See *Monthly Labor Review*, December 1969, p. 63.

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in October is based on contracts on file in the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more in all industries except government.

Company and location	Industry	Union [1]	Number of workers
Belt Association, Inc. (New York, N.Y.)	Apparel	Ladies' Garment Workers	3,500
Borg-Warner Corp., Warner Gear Division (Muncie, Ind.)	Transportation equipment	Auto Workers (Ind.)	3,000
Borg-Warner Corp., York Division—Engineering Department (York, Pa.)	Machinery	Ice Machinery Independent Employees' Association (Ind.).	1,800
Brown Shoe Co. (Interstate)	Leather	United Shoe Workers	5,050
Brown Shoe Co. (Interstate)	Leather	Boot and Shoe Workers	7,100
Burroughs Corp. (Detroit and Plymouth, Mich.)	Machinery	Auto Workers (Ind.)	4,500
Car-Wash-Service Station Agreement [2] (Chicago Ill.)	Services	Teamsters (Ind.)	1,500
Caterpillar Tractor Co. (Interstate)	Machinery	Auto Workers (Ind.)	26,300
Cessna Aircraft Co. (Hutchinson, Kans.)	Machinery	Machinists	1,200
Chain and Independent Grocery Stores—Retail Meat Markets (Houston, Tex.)	Retail trade	Meat Cutters	1,700
Chandler Evans, Inc., and Pratt & Whitney, Inc. (West Hartford, Conn.)	Machinery	Auto Workers (Ind.)	2,000
Chicago Bakery Employers Labor Council covering 4 companies (Chicago, Ill.)	Food products	Teamsters (Ind.)	1,200
Chrysler Corp., Airtemp Division (Dayton, Ohio)	Machinery	Electrical Workers (IUE)	4,100
Collins Radio Co. (Cedar Rapids, Iowa)	Electrical products	Electrical Workers (IBEW)	7,000
Dana Corp., Parish Divisions (Reading, Pa.)	Transportation equipment	Steelworkers	2,850
Dayton Power and Light Co (Ohio)	Utilities	Utility Workers	2,150
Eaton Yale and Towne, Inc., Eaton Axle Division (Cleveland, Ohio)	Transportation equipment	Mechanics Educational Society	1,750
First National Stores, Inc. (New York and New Jersey)	Retail trade	Meat Cutters	1,400
Fischer Packing Co., and Klarer of Kentucky, Inc. (Louisville, Ky.)	Food products	Meat Cutters	1,450
Food Employers Council, Inc. (California)	Food products	Meat Cutters	3,000
Gasoline Service Station Employers of Metropolitan Chicago area	Retail trade	Teamsters (Ind.)	6,000
General Motors Corp., hourly rated plant protection employees (Interstate)	Transportation equipment	Plant Guard Workers (Ind.)	1,000
General Telephone Co., of Illinois, Traffic & Commercial Departments (Interstate).	Communications	Electrical Workers (IBEW)	1,000
Jeffboat, Inc. (Jeffersonville, Ind)	Transportation equipment	Marine and Shipbuilding Workers	1,000
Kaiser Foundation Hospitals and 2 others (California)	Hospitals	Service Employees	4,500
Kroger Co., Charleston Division (West Virginia, Kentucky, and Ohio)	Retail trade	Meat Cutters	1,100
Ladies Shoe Industry [2] (New York, N.Y.)	Leather	United Shoe Workers	4,000
League of Off-Broadway Theatres and Producers (New York, N.Y.)	Amusements	Actors	1,500
Leeds & Northrup Co. (Pennsylvania)	Instruments	Auto Workers (Ind.)	2,250
Mack Trucks, Inc., Shop Agreement (Interstate)	Transportation equipment	Auto Workers (Ind.)	6,350
Massey-Ferguson, Inc., Master Agreement (Interstate)	Machinery	Auto Workers (Ind.)	1,800
Meat Markets, Self-Service Contract (Chicago and Cook County, Ill.)	Retail trade	Meat Cutters	2,500
Meat Markets, Service Contract (Chicago and Cook County, Ill.)	Retail trade	Meat Cutters	2,000
Mountain States Employers Council, Inc., Denver Retail Grocers (Denver)	Retail trade	Retail Clerks	3,000
National Electrical Contractors Association, Inc., Western Pennsylvania Chapter (Pennsylvania).	Construction	Electrical Workers (IBEW)	1,500
National Twist Drill & Tool Co. (Rochester, Mich.)	Machinery	Auto Workers (Ind.)	1,500
New York City Bakery Employers Labor Council covering 8 cos. (N.Y.–N.J.)	Food products	Bakery Workers	1,350
Office Buildings [2] (Pittsburgh, Pa.)	Services	Service Employees	1,800
Oil, Petroleum, Chemicals, and Liquid Products Drivers Agreement (Interstate).	Wholesale trade	Teamsters (Ind.)	3,500
Otis Elevator Co., Production and Maintenance Agreement (Yonkers, N.Y.)	Machinery	Electrical Workers (IUE)	2,000
Petroleum Labor Group, Wholesale Gas and Oil (Minneapolis and St. Paul)	Wholesale trade	Teamsters (Ind.)	1,000
PPG Industries, Pittsburgh Plate Glass Co., Chemical Division (Barberton, Ohio).	Chemicals	Allied Chemical and Alkali Workers of America (Ind.).	1,500
Printing Industries of Metropolitan New York, Inc., Printers League Section	Printing and Publishing	Typographical Union	6,700
Printing Industries of Northern California (California)	Printing and Publishing	Lithographers and Photoengravers	2,200
Simmons Co., Master Multi-Plant (Interstate)	Furniture	Upholsterers	7,750
Southeastern Employers [2] (Interstate)	Construction	Boilermakers	3,700
Sterling Faucet Cos., and 3 other cos. (Morgantown and Reedsville, W. Va.)	Fabricated metal products	District 50, Allied and Technical (Ind.)	1,000
Sylvania Electric Products, Inc., (Warren, Pa.)	Rubber	Machinists	1,100
Timex Corp. (Oakville and Middlebury, Conn.)	Instruments	Directly Affiliated Local Union	3,000
TRW, Inc., Tapco Division (Ohio)	Transportation equipment	Aircraft Workers Alliance, Inc. (Ind.)	6,900
TRW, Inc., Van Dyke Works, Thompson Products, Michigan Division (Warren)	Transportation equipment	Auto Workers (Ind.)	1,150
Union Carbide Corp., Nuclear Division, Gaseous Diffusion Plant (Oakridge, Tenn.).	Chemicals	Oil, Chemical and Atomic Workers	1,000
United Parcel Service (Los Angeles, Calif.)	Trucking	Teamsters (Ind.)	1,600
Weston Instruments, Inc., Weston Instruments Division (Newark, N.J.)	Electrical products	Weston Employees' Union (Ind.)	1,200
Whirlpool Corp. (Evansville, Ind.)	Machinery	Electrical Workers (IUE)	6,800
White Motor Corp., Diamond Reo Truck Division (Lansing, Mich.)	Transportation equipment	Auto Workers (Ind.)	1,300

[1] Union affiliated with AFL–CIO except where noted as Independent (Ind.).

[2] Industry area (group of companies signing same contract).

Developments in Industrial Relations

Transportation

The protracted bargaining in the trucking industry ended on July 3, when 50,000 workers[1] in the Chicago area approved a 36-month contract providing for $1.65 in wage increases, plus benefit improvements. Within hours, Trucking Employers, Inc.[2] and the Teamsters reopened the 39-month "national" contract they had negotiated on April 2 and raised the wage portion of their package to $1.85, from $1.10.[3]

The Chicago settlement, which ended a 3-month strike-lockout, provided the following increases:

Effective date	*Wages*	*Company contribution to pension or health and welfare fund*
April 1, 1970	$0.35	$1
October 1, 1970	.30	1
April 1, 1971	.25	2
October 1, 1971	.25	2
April 1, 1972	.25	2
October 1, 1972	.25	2

Other terms included an additional holiday and improved vacations.

The renegotiated national contract, which covered 450,000 drivers and related employees, called for increases in hourly wages and over-the-road mileage, as follows:

Effective date	*Wages*	*Mileage*
April 1, 1970	$0.35	$0.01
July 1, 1970	.15	----
January 1, 1971	.40	----
July 1, 1971	----	.01
January 1, 1972	.25	----
July 1, 1972	.25	.0075

Contributions to both pension and health and welfare funds were hiked by $1 a week to each fund on April 1, 1970, January 1, 1971, January 1, 1972, and January 1, 1973. Other terms included an additional holiday and improved vacations.

Both agreements provided for revised escalator clauses, with a 16-cent maximum possible increase over the term in the national contract and 12-cent maximum in the Chicago pact.

A "selective strike" by 18,000 members of the 260,000-member United Transportation Union (UTU) against three railroads[4] ended on July 7, when President Nixon ordered the strike halted for 60 days. Acting under provisions of the Railway Labor Act, the President appointed an emergency board[5] to investigate the 11-year-old dispute over the need for firemen on diesel locomotives and to report to him in 30 days. The strike by firemen, brakemen, switchmen, and conductors reflected the union's attempt to restore some 18,000 firemen's jobs which were eliminated as a result of a November 1963 arbitration panel's ruling that 90 percent of the diesel locomotive firemen's jobs in freight and yard service were unnecessary and could eventually be eliminated. The panel's ruling was effective until 1966. Since then, the rail unions have attempted to restore the firemen's jobs.

On December 1, 1969, both sides in the dispute agreed to continue talks with the help of a special mediator, Frederick R. Livingston, thus averting a walkout by rail unions. The talks broke down on June 11, 1970, over whether the use of radios by ground crews should be negotiated separately or along with the manning dispute. The union asserted that the use of radios "was not part of the original dispute" and should be dealt with separately. UTU President Charles Luna stated that the cause of the strike was "a simple failure of the railroads to bargain in good faith to settle the firemen issue with us." The union argues that firemen are needed on diesel locomotives as a safety measure; the carriers contend that having firemen aboard a diesel engine amounts to "featherbedding."

Prepared by Leon Bornstein and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and based on information from secondary sources available in July.

La Huelga

The long and bitter strike by the United Farm Workers Organizing Committee against table grape growers neared completion on July 29, when the union signed an agreement on initial contracts with 26 grape growers (representing 35 percent of the industry) in the San Joaquin Valley. The settlement, signed in Delano, Calif., meant that 65 percent of the grape growers are now unionized. (The union had achieved a breakthrough with table grape growers in April 1970, when agreements were reached with five growers in the Coachella Valley.[6]) The remaining table grape growers, located primarily in the Fresno, Calif., area, were expected to sign contracts shortly with the union. In that event, the historic 5-year strike, coupled with a 3-year nationwide boycott of table grapes, would be over.

Cesar Chavez, who led the strikers and organized the boycott, signed the agreement, which called for a wage of $1.80 an hour plus 20 cents for each box picked, rising to $1.95 an hour in 1971 and $2.05 an hour in 1972. (Prior to the strike, workers received $1.10 an hour, rising up to $1.65 an hour in recent years.) Growers will also contribute 10 cents an hour to the union's health plan and 2 cents for each box to an economic development project.

Under the agreement, jobs will be assigned through a union hiring hall. Formal grievance procedures will be instituted, and the agreement prohibits strikes. A joint union-grower committee will regulate the use of dangerous pesticides.

Agreements

In New York City, 25,000 nonprofessional employees of 33 private hospitals were affected by a July 1 settlement between the League of Voluntary Hospitals and Homes and Local 1199 of the Retail, Wholesale and Department Store Union. The 2-year pact provided for an immediate wage increase of $18 a week or 15 percent, whichever is higher, and $12 or 10 percent in 1971. There was also a provision for cost-of-living increases equal to any rise in the Consumer Price Index in excess of 6 percent a year. Prior to the settlement, the minimum rate was $100 a week and the average was $112 for service workers and $135 for licensed practical nurses and clerical, technical, and social workers. Other terms included adoption of a twelfth paid holiday (the birthday of Dr. Martin Luther King, Jr.), 4 weeks of vacation after 8 instead of 10 years of service, and adoption of dental and prescription drug plans financed by a 2-percent (of gross payroll) increase in the hospitals' welfare fund payment.

Twenty thousand announcers, newsmen, correspondents, and other employees were covered by a June settlement between the American Federation of Television and Radio Artists (AFTRA) and the NBC, CBS, and ABC networks. Terms of the 3-year pact included a $60-a-week total increase in newsmen's base pay (to $410). The networks' pension and welfare contribution was increased to 6.5 percent of employees compensation, from 5 percent. The networks also agreed to begin paying the employees for the re-use in foreign countries of commercials made in the United States.

International Paper Co. and three unions reached agreement in mid-June on a 3-year

Earnings index

The Bureau's index of manufacturing production workers average hourly earnings (excluding overtime premium pay and the effects of interindustry employment shifts) rose 0.7 in April, to 155.1. Data for prior periods are shown below.

1969	Index (1957–59 = 100)	1970	Index (1957–59 = 100)
April	146.0	January	152.9
May	146.6	February	153.4
June	146.9	March	154.4
July	147.8	April	155.1
August	148.4		
September	149.5		
October	150.2		
November	151.0		
December	152.0		

Annual averages:

1968	139.5
1969	147.7

Monthly data from 1947–68 and data for selected periods from 1939 to 1947 are contained in *Summary of Manufacturing Production Workers Earnings Series*, 1939–68 (BLS Bulletin 1616, 1969).

contract for 12,000 employees of the firm's Southern Kraft Division. The contract provided for a 25-cent wage increase retroactive to the June 1 termination date of the previous contract and for 6.25-percent increases in June of both 1971 and 1972. Other provisions included a ninth paid holiday, company assumption of the employees' pension contribution (4.5 percent of annual earnings in excess of $3,000), and improved sick pay and insurance. The unions were the United Papermakers and Paperworkers, the Pulp, Sulphite and Paper Mill Workers, and the Electrical Workers (IBEW).

A 2½-month strike at the Allen-Bradley Co. in Milwaukee, Wis., ended on June 22, when members of the Electrical Workers union (UE) ratified a 33-month contract. The 5,200 workers received an immediate 26-cent wage increase, 16 cents on May 2, 1971, 16 cents on July 9, 1972, and cost-of-living adjustments of up to 7 cents in October of both 1971 and 1972. Benefit changes included a tenth paid holiday, an improved vacation schedule—ranging from 1 week after 1 year of service to 4 weeks after 15 years, and an additional day for each year in excess of 24—and improved pension and insurance. The company agreed to a dues checkoff system and to rehire 30 workers fired during the walkout.

Laid-off workers will continue to accrue benefit credits for up to 3 years under an agreement between TRW, Inc., of Cleveland, Ohio, and the Aircraft Workers Alliance, which represents 5,500 workers. As a result, laid-off employees recalled to work within 3 years will receive vacations, pensions, and Old Guard Bonuses (a lump-sum payment of up to $1,500, paid after 25 years of service), computed as if their service had not been interrupted. Under the previous provision, up to 3 years of time in layoff status was creditable, but only for job bidding, recalls, shift preferences, and "bumping" in the event of a subsequent layoff. The company extended the new benefit protection to nonunion salaried employees.

About 3,000 employees of Brunswick Corporation's Kiekhaefer–Mercury Division (outboard motors) in Fond du Lac, Cedarburg, and Oshkosh, Wis., were covered by 2-year contracts negotiated by the Machinists. Terms of the pacts, ratified June 20, included a 30-cent-an-hour immediate wage increase, 25 cents in June 1971, an additional paid holiday, increased company funding of the pension plan, and company assumption of the cost of dependents' insurance coverage.

Kodak

About 38,000 employees of the Eastman Kodak Co., including 34,000 in Rochester, N.Y., were given a 7.5-percent wage increase on August 10, as a result of a decision by the firm's management. The increase, which was announced in mid-July, applied to all hourly and some salaried employees. In July 1969, the company granted a 5.5-percent wage increase.

Forgoing increases

About 450 workers at the Aluminum Company of America's Wear-Ever subsidiary cookware plant in Chillicothe, Ohio, have voted to forgo the third-year wage-and-benefit increases due them under their contract in order to keep the plant operating. A final vote was taken on June 23, after Alcoa had begun phasing out the operation. A company spokesman said that the shutdown was started because wages and benefits ". . . were running at least $1 an hour more than the competing cookware industry." The gains the workers gave up, which were negotiated for them in 1968 by the Aluminum Workers International Union, consisted of a June 1 wage increase averaging 13 cents an hour, an increase in night shift premiums, another paid holiday, and improvements in SUB and medical insurance.

In a similar development, Rubber Workers at Uniroyal, Inc.'s Naugatuck, Conn., plant agreed on July 12 to forgo a wage increase for 3 years. In return, the company agreed to keep the facility—portions of which are 127 years old—in operation for 4 years. In January, Uniroyal had announced a "tentative" decision to close the canvas and rubber footwear plant, reportedly stating that the $4.50 an hour in pay and supplementary benefits paid at Naugatuck made the plant's output uncompetitive with both foreign and domestic producers of such products.

The moratorium on wage hikes means that the 4,000 Rubber Workers at the Naugatuck footwear plant are excluded from the 82-cent wage boosts under the new 3-year master agreement concluded

between Uniroyal and the union (ratified on June 30).[7] However, the Naugatuck plant is covered by the supplementary benefit gains won under the master contract.

Equal rights

The U.S. Department of Justice, on July 20, filed the first suit to halt job discrimination against women since the practice was outlawed by the 1964 Civil Rights Act. The suit, filed in U.S. District Court in Toledo, Ohio, charges the Libby–Owens–Ford Co., Inc. with hiring women at only 1 of its 5 Toledo-area plants and with assigning them to "less-desirable and lower-paying jobs" subject to a high frequency of layoffs. The company was accused of following job practices that "tend to deprive [women] of employment opportunities or adversely affect their status as employees because of their sex." The suit alleged that women have to meet higher hiring qualifications than men in similar jobs, are denied equal opportunity for promotions or overtime work, and are not given jobs traditionally held by men.

Also named in the discrimination suit was the United Glass and Ceramic Workers Union. The suit maintained that labor agreements between the firm and the union shortchange women employees on seniority. Since senority is not based on total time with the company, but on service in jobs from which women have either been excluded or had limited access, the labor contracts were described as depriving females of an equal chance "to compete with their male contemporaries for the more desirable, better-paying jobs."

The Justice Department suit asks for preliminary and permanent injunctions against the company and union to require equal opportunities for women in hiring, job assignments, promotions, overtime work, and seniority. The defendants would be required to compensate women who were rejected for jobs because of their sex or suffered economic losses as a result of discriminatory job assignments. The action came 6 weeks after the Labor Department issued guidelines implementing a 1968 Executive Order prohibiting sex discrimination in employment by Government contractors.[8]

On July 21, the company issued a statement saying it "is making every effort to comply" with the Civil Rights Act requirements. A company spokesman cited the conflict between Federal and Ohio laws as a major problem in the alleged discrimination. Federal law forbids different treatment of the sexes, but Ohio law requires a number of special conditions for women, including hours restrictions, he said. "This basic conflict of laws" remains unresolved, he added, because Ohio refuses to change its laws.

Philadelphia plan

Seven Philadelphia contractors were charged with failure to make good-faith efforts to hire minority members under the Philadelphia plan. The charges were detailed in six show-cause orders issued by the Department of Health, Education, and Welfare and one by the Department of Housing and Urban Development. The orders could result in the loss of existing Federal contracts and the ban of future contracts for contractors covered by the Philadelphia plan. The controversial plan, which has been challenged in the courts by contractors, sets up specific hiring "goals" for contractors in the Philadelphia area working on federally assisted construction projects. It was implemented in September 1969.[9]

A spokesman for the Department of Health, Education, and Welfare said that the agency was providing funds for eight construction projects in the Philadelphia area involving 21 contractors, six of which have not met their hiring goals. He added, "These contractors have been notified and directed to show cause why enforcement action should not be instituted against them." Under the "show cause" notice, each contractor has 30 days to indicate what efforts he has made to comply with the plan's requirements.

John L. Wilks, director of the Labor Department's Office of Federal Contract Compliance, termed the moves "very significant," saying, "This is the first overt enforcement action we've taken."

Legal developments

J. P. Stevens & Co. disclosed that a Federal appeals court in Richmond, Va., had reversed the NLRB and ruled in the company's favor over charges of unfair labor practices. The July ruling marked the giant textile company's first U.S. appellate court victory in its lengthy battle with the Textile Workers Union over efforts to organize

Stevens' workers. (A union official stated that the decision would be appealed to the Supreme Court.) In five prior cases, appeals courts had upheld NLRB rulings that J. P. Stevens engaged in unfair labor practices while resisting union organizing attempts.

The firm said that the decision means "the company is now under no requirement to bargain or deal with the union in any manner," adding "over a period of more than 7 years of extensive campaigning the union has failed to organize any Stevens plant, and during this time Stevens has repeatedly charged that the labor board has been extremely biased in seeking to assist the union's organizing efforts."

In July, the American Association of Securities Representatives filed a civil antitrust suit against the New York Stock Exchange and 44 securities firms, charging that recent reductions in commissions paid to securities salesmen by many firms reflect a conspiracy in restraint of trade. The suit also attacked the temporary service fee, or surcharge, of up to $15 being charged by brokers on orders of 1,000 shares or less, alleging that the surcharge is not shared by registered representatives. The suit asked for damages but did not specify a dollar amount. The action, filed in a Federal district court in New York, also asked the court to enjoin the defendants against violations of the Sherman Antitrust Act and the Clayton Act. The association, which claims 5,000 members, affiliated with the National Maritime Union in June.[10]

Union developments

In a referendum, members of the Professional Air Traffic Controllers Organization (PATCO) ratified its affiliation with the Marine Engineers Beneficial Association (MEBA). The vote endorsed the move toward affiliation which had been taken at PATCO's April convention.[11] The affiliation brings the 7,000 air traffic controllers into the AFL–CIO. PATCO President John Leyden hailed the move as a way to make new resources available, to achieve increased effectiveness, and to obtain "a more professional approach toward labor-management relations."

The executive board of the 68,000-member Plasterers and Cement Masons Union named Joseph T. Power president of the union following the resignation of President Edward J. Leonard because of ill health. Mr. Leonard, who had served as president of the union since 1958, was named president emeritus. Mr. Power, age 50, had been executive vice president of the union since 1959.

In another union change, Frederick O'Neal, an actor and an AFL–CIO vice president, was named president of the Associated Actors and Artistes of America, succeeding the late Conrad Nagel. Mr. O'Neal had recently been reelected president of Actors' Equity, a post he had held since 1964. Besides Actors' Equity, member groups of the Associated Actors and Artistes include the American Guild of Musical Artists, American Federation of Television and Radio Artists, American Guild of Variety Artists, and the Screen Actors Guild.

Herman D. Kenin, President of the American Federation of Musicians since 1958, died at the age of 69. Mr. Kenin, who was also an AFL–CIO vice president, succeeded former Musicians' President James C. Petrillo in 1958 and helped guide the 300,000-member union to its period of greatest growth. Union officers called a special board meeting for July 29 to deal with the emergency caused by Mr. Kenin's death. The board named Hal C. Davis of Pittsburgh, a vice president of the union since 1963, to succeed Mr. Kenin.

In a nationwide secret mail ballot representation election among REA Express, Inc. employees, the incumbent Brotherhood of Railway and Airline Clerks defeated the Teamsters by a vote of 10,074 to 6,077. The vote was conducted by the National Mediation Board, which declared some 20,598 REA employees eligible to vote.

Conventions

Among unions convening in July were the Maintenance of Way Employees who met in Detroit. Delegates to the union's 36th convention reelected President Harold C. Crotty and other top officers to new 4-year terms, and voted to raise Grand Lodge dues for the 140,000 members from $6.75 quarterly to $9.75 effective in 1971.

Nearly 300 delegates to the 36th biennial convention of the Bookbinders, also meeting in Detroit, approved a recommendation to "enter into an agreement for merger with the Lithographers and Photoengravers Union." A merger, which would create a 125,000-member union, was

approved by the Lithographers' international council in June. A convention resolution authorized the Bookbinders' executive council to "take any and all actions which it deems necessary to bring about a merger" with the goal of completing the action prior to the next convention in 1972. Any merger agreement must be ratified by the membership before becoming effective.

Bill Baldwin was elected the new president of the American Federation of Television and Radio Artists by delegates to the union's 33d convention in Louisville. Mr. Baldwin, who has been an actor, narrator, announcer, and sportscaster for nearly 35 years, has been the union's first vice president since 1967. He succeeds Mel Brandt, who served 3 years as president and did not choose to run for another term. In response to officers' calls for "staggered" contract bargaining, the delegates approved a resolution calling for different expiration dates for major contracts. In June, the union had concluded a 3-year contract with the major networks. (See above.)

In Milwaukee, William T. Cleary was elected president of the American Federation of Technical Engineers, succeeding James Woodside, who joined the Navy Department as a labor relations advisor. Delegates to the 18,000-member union voted to increase monthly per capita payments from $1.50 to $1.85. If approved by members in a referendum, the dues hike would go into effect in February 1971.

Table 1. Preliminary measures of compensation, 1968, 1969, and 1970

Type of measure	Annual rate of increase in percent			
	First 6 months		Full year	
	1970	1969	1969	1968
Major collective bargaining settlements:				
First-year wage rate adjustment [1]	13.4	8.7	9.2	7.4
Wage rate changes over life of contract [1]	9.5	7.5	7.6	5.9
Wages and benefits combined (equal timing) [2]	9.7	8.2	8.2	6.5
Wages and benefits combined (first-year changes) [2]	14.6	10.6	10.9	8.7
Aggregate measures: [3]				
Total compensation per man-hour, all employees, private nonfarm economy	6.1	5.8	6.6	7.9
Average hourly earnings, production or nonsupervisory workers, private nonfarm economy	5.0	7.2	7.1	7.0

[1] Covers settlements affecting 1,000 workers or more.
[2] Limited to settlements for 5,000 workers or more. Equal timing assumes a uniform spacing of wage and benefit changes over the life of the contract. First-year changes measure increases in wages and benefits negotiated during the period and effective within 12 months of the effective date of the agreement.
[3] Data for full years measure changes from fourth quarter of prior year to fourth quarter of current year. All changes are computed from seasonally adjusted data.

Government

On July 23, Governor Raymond P. Shafer of Pennsylvania signed with "misgivings and strong reservations" a bill giving public employees the right to engage in collective bargaining and a limited right to strike over wages or working conditions. (Some local jurisdictions in the State have, in the past, engaged in collective bargaining with their employees—for example, Philadelphia and Pittsburgh public school teachers. Such agreements, which were in effect as of January 1, 1970, were protected under the new bill.) The new law, which becomes effective 90 days after the Governor's signature, prohibits strikes that endanger the public health, safety, or welfare. The bill does not apply to policemen or firemen, who are covered by a separate law enacted 4 years ago that established procedures for binding arbitration. The Governor's signing of the bill culminated over 2 years of efforts in the State legislature to secure collective bargaining rights for nearly 1 million workers in the public sector across the State. The new law covers State, county, and municipal employees, as well as employees of nonprofit hospitals, nursing homes, universities, and colleges.

On June 30, Governor John A. Burns of Hawaii signed a bill permitting State and local government employees to strike, except where the public health is endangered, if efforts to reach an agreement fail. The bill had been passed by the legislature in May.[12]

On July 15, New York City Major John V. Lindsay signed an executive order, effective September 1, requiring contractors working on city construction projects—or projects assisted by the city—to hire one minority trainee for every four journeymen on the job. The Mayor stated that the order would result in a "significant increase in . . . job opportunities in the construction industry for the lowest rung of the city's economic ladder."

Statistical summary

Table 1 summarizes various preliminary measures of compensation during the first 6 months

of 1970 and during earlier periods. Mean adjustments are used as the average measure of change. □

———*FOOTNOTES*———

[1] Represented by the Chicago Truck Drivers Union, which is not affiliated with the Teamsters, and by several Teamster locals that have never participated in the national bargaining which began in 1964.

[2] Trucking Employers includes 1,100 of the largest trucking firms out of the 12,000 in the industry.

[3] See *Monthly Labor Review*, June 1970, pp. 77 and 79, for terms of the contract, which provided for the reopening of bargaining if the Chicago locals gained a larger package.

[4] The Southern Pacific, Baltimore & Ohio, and Louisville & Nashville railroads.

[5] Frederick R. Livingston, a special mediator in the rail dispute, was named chairman of the board. The other members were Willoughby Abner and James C. Vadakin.

[6] See *Monthly Labor Review*, June 1970, p. 80.

[7] See *Monthly Labor Review*, August 1970, p. 78.

[8] Ibid.

[9] See *Monthly Labor Review*, November 1969, pp. 72–3.

[10] See *Monthly Labor Review*, August 1970, p. 82.

[11] See *Monthly Labor Review*, June 1970, p. 77, for an account of the convention and the termination of the "sick out" by members of PATCO.

[12] See *Monthly Labor Review*, July 1970, p. 82.

Indexes to the Monthly Labor Review

Each year the December issue of the *Monthly Labor Review* contains an index, by subject, of articles published in the *Review* in the current year. Also included are listings of statistical tables and of books reviewed, by author of book. In recent years, the index has also included an alphabetical list of authors.

At intervals, these yearend indexes have been combined and published as BLS Bulletins:

Bulletin 695, *Subject Index to the Monthly Labor Review, Volumes 1 to 11*, July 1915 to December 1920

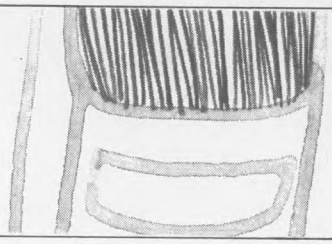
Bulletin 696, *Subject Index to the Monthly Labor Review, Volumes 12 to 51*, January 1921 to December 1940

Bulletin 1080, *Subject Index of Volumes 52–71, Monthly Labor Review*, January 1941 to December 1950

Bulletin 1335, *Index of Volumes 72–83, Monthly Labor Review*, January 1951 to December 1960

Work is now in progress on the next bulletin in the series, to cover volumes 84 to 93, January 1961 to December 1970.

Book Reviews and Notes



World coverage

Trade Unions and Industrial Relations: An International Comparison. By Everett M. Kassalow. New York, Random House, Inc., 1969. 333 pp. $8.

Too frequently, books on international comparison of labor turn out to be either a series of discrete country studies or a comparative discussion confined to a few selected countries. In the book under review, Professor Kassalow successfully covers all the industrially developed areas of the world and their labor problems. Two additional chapters provide a discussion that this reviewer hopes the author will pursue in a later study—one is on trade union development and the other on the economic setting of industrial relations in the newly independent countries. Students and practitioners in the field will find this study useful for many years. For more serious scholars, it will serve as a challenging point from which to embark on critical analysis.

Kassalow identifies two distinct kinds of movements among the "Western" nations—pragmatic, with the stress on economic objectives (the United States), and ideological or class-oriented (most Western European countries). After discussing the evolution of these systems, the author illustrates the increasing pragmatism of both political and trade union organizations, especially as State power becomes a reality for the parties, and as improved economic conditions provide the working class with something to lose in addition to their chains. Of special value to students is the country-by-country discussion of the changes that took place in Western European socialist movements, and how doctrinal revisionism came about as a natural concomitant of economic advance in the life of the average worker. Full treatment is also given to the differences and similarities among the economic aspects—collective bargaining objectives and techniques, labor attitudes toward management, the various types of worker-participation in industry, and white-collar unionism.

The background discussion leads into a brief but eloquently stated theory for understanding the two strands of labor activity existing in industrialized societies: the worker's reaction to his job situation where he depends on the union to represent his economic interests—and the activity of somewhat broader scope, occasionally even appearing to conflict with his narrow job interests, "which integrates workers into society," in this sphere, they rely on their political party and union to represent their broader social interests. The first represents the "conflict" function of the union, and the second what the author calls the "integration" function of the labor movement, in its broader sense.

Although Kassalow disclaims any intention of presenting a new full-blown theory of trade unionism, he remarks that the dual strands of labor activity he has described may bring together Selig Perlman's "job consciousness" theory of trade unionism, based on a philosophy of job scarcity, with the theories of J. B. S. Hardman and others who saw unionism as "economic and political power centers in modern society."

The author does not feel the Western experience necessarily provides a set of formulas for other countries, only that it helps the developing nations learn through the successes and failures of others. In most of the newly independent countries the labor movement was an ally in the anticolonial struggle. After freedom, the new governments generally found it necessary to integrate the unions into the developing societies and to dissuade them from threatening the economic development program. The need felt by workers in developing societies for "outside" leadership (generally supplied by politicians or intellectuals), for governmental support, for close relationships

to political parties, for "reactionary" economic policies and ideological postures, are all briefly explained without being excused or advocated by the author. This discussion is necessary and desirable if readers are to avoid the oversimplified analyses which have led so many trade unionists, managements, governmental authorities, and university scholars into advocacy of similarly oversimplified and thus ineffective solutions.

The author has obviously read and digested an overwhelming amount of authoritative material from all parts of the world. Much of what is highlighted is "fugitive" material—articles, monographs, and books not normally quoted in studies within the narrow field of labor problems. Serious students of international labor problems should become acquainted with these sources to fully develop their competence in this field.

As a final comment, I should like to add a note on notes. Over the past few years, the practice of putting footnotes at the end of the chapter or at the end of the volume itself has been entirely defensible for source references. In a study such as Professor Kassalow's, where so much analytical information is provided in the notes—the brilliant summary chapter on labor in the Western world, for instance, is only twice as long as its notes—the average reader is seriously inconvenienced. He must shift his glance from text to chapter notes in a veritable intellectual tennis match, straining his neck-muscles, eyesight, and patience. Is it possible to appeal to authors and publishers to revert to the practice of placing substantive footnotes at the bottom of the page where interested readers can read them easily?

—Morris Weisz
Counselor for Labor Affairs
U.S. Embassy, New Delhi

Diplomas and job performance

Education and Jobs: The Great Training Robbery. By Ivar Berg. New York, Praeger Publishers, 1970. 200 pp. $7.50.

This volume studies a vital and difficult question: the economic value of education. The American myth, that additional education is always valuable and will be repaid many times over in better jobs and promotions, is hereby challenged. The myth was comfortable. It required the unemployed of the 30's and the disadvantaged of today to blame themselves for their plight, "If only I had gotten more education."

Dr. Berg correctly suggests that an annual investment of more than $49 billion ought to be carefully scrutinized. He skillfully organizes and analyzes the information available on the economic contribution of education and training. The data are not convincing that education always pays for itself. And it sometimes seems to be dysfunctional. The better educated do not always perform well; they can become bored and frustrated with low-skilled jobs.

A high school or college diploma is often used as an initial screening device. It then becomes an essential qualification for a job, regardless of whether or not it is an accurate predictor of successful job performance. Berg faults the "purposeless credential consciousness" of employers, although he does not seem to acknowledge that many large employers have dropped their high school degree requirements in recent years.

Dr. Berg could unearth no good data on the economic value of hiring college graduates for managerial positions. On the other hand, the turnover and the resulting costs for these young men was quite high. Interviews with executives, however, brought abundant testimony on the worth of college graduates. The executives cited their diligence and perseverance in enduring 4 years of college, their greater stability, and their poise and self-assurance.

For blue-collar workers, "educational achievement explained so few promotions that it could be discounted as a factor." The better-educated person obtains a better job by moving to another firm, while his lesser educated fellow worker stays and moves up into the vacated slots.

Dr. Berg indicts private industry for not keeping records that would enable them to determine if better-educated workers actually do perform better. There is little information linking education with "such matters as grievance patterns, turnover, productivity, absenteeism, and worker attitudes."

The more careful research of public sector jobs, the military, and civil service supports the same theme. Most of the evidence shows that there is

little or no relation between additional education and successful job performance.

Dr. Berg's analysis is documented, careful, skeptical, and generally clear, although he does tend to string ideas and words together in a way that is sometimes difficult to follow. The author did not intend to attack the more difficult problem of the overall value of a humanistic education. Berg focuses on one aspect of education: its contribution to job performance. And he finds it wanting. It would be a mistake to assume that this were its primary purpose; and Berg agrees. On the other hand, it would be presumptuous and evasive to assume that education was performing more effectively as a humanizer, a stimulator of creativity, and a developer of fuller and more mature human beings.

—Gerald F. Cavanagh, S.J.
Research Associate
Cambridge Center for Social Studies

Bargaining model

The Economics of Bargaining. By John G. Cross. New York, Basic Books, Inc., 1969. 247 pp. $8.95.

In this book Professor Cross develops an economic model of the bargaining process based on a novel concept of the way in which bargainers choose their demands and subsequently modify them as the bargaining proceeds. Initially, the model is examined against the background of other economic models of bargaining (especially those of Nash, Zeuthen, and Hicks). In later chapters, Cross considers the questions of mediation, arbitration, force, threats, preagreement costs, and bluffing as they relate to his basic model. In the last chapter the model is applied to the problem of oligopoly. Though the coverage in this book is relatively wide, the analysis never really deviates very far from Cross's basic model, and a less general title such as "An Economic Theory of Bargaining" would have more accurately described this material.

The author's basic model of the bargaining process is relatively straightforward. Cross assumes there are two bargainers who are negotiating to divide a given quantity of an economic good. Each bargainer expects some constant rate of concession on the part of the other bargainer, and then chooses the quantity he demands so as to maximize the present value of the utility of this quantity when the other bargainer finally concedes it to him. At the time such decisions are made, neither player plans to concede at all from the demanded quantity but subsequently revises his expectations of the other bargainer's concession rate as the bargaining goes on and changes his demand accordingly. Cross discusses the conditions under which this process will converge to a point of agreement. (A more detailed mathematical discussion of some of the aspects of Cross's basic model may be found in his article, "A Theory of the Bargaining Process," *American Economic Review*, March 1965, and additional comments by Coddington and Cross in the June 1966 issue.)

There are some interesting and innovative aspects of this model. The first is the recognition that bargainers will take the expected length of time needed to reach agreement into account in setting their demands as well as the costs of not agreeing. The second is the productive or information-providing nature of the bargaining process.

Despite these appealing features, I am uncomfortable with several of the implicit and explicit assumptions that underlie this theory of the bargaining process. For example, it seems curious that even though each bargainer continually changes his demands throughout the bargaining process, he never recognizes that this continual revision will occur at the time he makes his demand decisions. In other words, each bargainer correctly assumes the qualitative (although not necessarily quantitative) behavior of the other bargainer but fails to recognize it on his own part. Thus, according to a strict interpretation of the mathematics of Cross's model, a bargainer could "optimally" decide to demand more than the *total* amount of the available good and base this decision on an optimization scheme in which he explicitly expects to make no concessions.

Now it may be true that the form of the optimal decision rule is for each bargainer to make the "complete" concession in each decision period and ignore, at that time, the likelihood that he will have to make future concessions, but that should be proved as a mathematical theorem and not simply assumed as Cross does in his model. If it

turns out that this rule is not optimal (and I strongly suspect it is not when each bargainer is aware of the uncertainty involved in his expectation of the other's concession rate), then many of the conclusions that Cross derives from the model would have to be reconsidered, particularly those in the chapter on bluffing.

Another disturbing aspect of the model is that at every point in time, each bargainer always expects the other's concession rate to remain constant throughout the subsequent negotiations. Moreover, neither bargainer recognizes that his own behavior will influence his opponents concession rate even though this is actually what happens. Here again, there is a puzzling asymmetry in the model.

I think that some of the results that Cross finds surprising (he frequently uses exclamation points at the end of counterintuitive statements) may not hold up in a less extreme version of this model. For example, he notes that the more sensitive learner (that is, one who adjusts his expectation of the other's concession rate more rapidly) is likely to have the outcome go against him. This result, it seemed to me, is not so much of a revealing insight into the bargaining process as it is a clue that something is fishy in the structure of the model. A bargainer who is aware of his influence on the other bargainer's concession rate (that is, a *really* astute learner) is almost certainly going to do better than a bargainer who does not possess such an awareness. Furthermore, even within the assumptions of the Cross model, there is a more plausible (but less exciting) explanation of this result. If, instead of calling expectation adjustment process a "learning" function, one designated it more generally as an expectations response function, then the apparent disadvantage of the more responsive bargainer could be explained in terms of his weakness as a bargainer (because of things such as a poorer political position, a less forceful and confident personality, and so forth) instead of his greater sensitivity as a "learner." In general, I was bothered by Cross' tendency to take a fairly limited result from the basic model and verbally generalize its implications and ramifications in an ad hoc manner that was almost totally unrelated to any analytically substantiated results.

Let me say, however, that on many occasions throughout this book, I was impressed with the depth of Cross' analytical and economic insights, his technical competence, and the amount of thought and work he has devoted to this interesting subject. I'm sure he is aware of the above and other limitations of the basic model. At the start of Chapter III, he makes it quite clear that he regards the basic model as a somewhat extreme case, and he spends a large part of the book discussing the implications of loosening several of the limiting assumptions. Nonetheless, I do not, on the basis of the present evidence, share his apparent confidence that the basic model provides results that are qualitatively robust. I strongly suspect that if the myopic character of the decision rules was changed by introducing a sequential or dynamic programing form of analysis, which in essence would require bargainers to contemplate alternative bargaining strategies over the entire expected span of the negotiations, some of the results of Cross' basic model would be altered in a fundamental manner. Before plunging ahead at this time with the development of more elegant theoretical models, however, I suspect that economists interested in the analysis of bargaining behavior would do well to give some greater attention to identifying more precisely those empirical phenomena that need to be explained. If nothing else Cross' work makes clear that economic theory has an important role to play in the analysis of bargaining behavior.

—John P. Gould

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From industry to community

Arbitration and Social Change: Proceedings of the Twenty-Second Annual Meeting, National Academy of Arbitrators. Edited by Gerald G. Somers. Washington, BNA, Inc., 1970. 233 pp. $10.

It is of little moment that there are different schools of thought on the wide variety of problems presented to labor arbitrators. What is remarkable is that in a private, and virtually unsupervised, adjudicative process at a single level without appeal to review tribunals, there

should be so much consistency and continuity in the articulation of controlling principles. Enunciation of these principles may do more than settle only the immediate issues submitted. If published, these decisions may have a normative impact nationally upon labor agreement administration and on employer and employee conduct.

In his role as decisionmaker, the arbitrator's reflections and rhetoric are restrained by the nature of the issues submitted for resolution and the need for tactful observations that will minimize industrial tensions. An arbitrator's critical comments on the process in which he is the main actor are best reserved for occasional essays in specialized periodicals. Enduring commentaries, expressing the arbitrator's candid views on the practice of his profession, will be found most frequently in published reports of proceedings of the National Academy of Arbitrators. Twenty-two such meetings have been reported since the founding of the Academy in 1947. The first seven annual meetings, 1948–54, survive only in the eight papers and five committee reports that appear in the first of the series, now at 16 volumes, that is also published by the Bureau of National Affairs.

The program of each annual meeting of the National Academy of Arbitrators usually centers on some general theme. Frequently, the title selected for the program does not encompass all that is published in the proceedings; such mismatching is not necessarily a drawback, however.

In the volume under review, the title applies only to three of the volume's seven chapters. Chapter II deals with the potential application of industrial jurisprudence to community conflict, fair employment problems and campus confrontations; Chapter III is concerned with industrial relations problems in hiring the disadvantaged and retaining them in the work force; and Chapter V canvasses the use of the factfinding process in settlement of public employee disputes. Three chapters discuss continuing and developing problems in the ordinary run of labor arbitration cases: management rights arguments; the uses of expert testimony in arbitration cases; and the ramifications of backpay awards in suspension and discharge cases. Chapter IV is a literal transcript of a whimsical and satirical after-dinner address, replete with in-group humor, that must have been a joy to hear at the time; it strikes a discordant note, however, when it appears among thoughtful essays designed to be read in the sober light of day.

The chapters related to the volume's title consider the question—Can expertise developed in private adjudication of grievance disputes or in factfinding on presidential boards under the Railway Labor and Taft-Hartley Acts be used in resolving ghetto and campus conflict? The role of experienced labor arbitrators as mediators or factfinders in public employment negotiations is well-documented.

Even the most hopeful participant in the Academy's annual meeting failed to establish any analogy between industrial grievances and community or campus discontent. Optimism rests on the tenuous assumption that experience in labor arbitration produces the poise, temperament, imagination, and personal prestige needed to mediate political and economic confrontations that arise from challenges to established governing institutions because of disparities of age, education, social, and economic class or spring from historic patterns of discrimination.

Despite occasional optimistic suggestions for putting arbitration experience to new uses, many contributors express concern that in deciding industrial discipline cases, arbitrators would be acting injudiciously by applying more relaxed standards of plant behavior to employees recruited from ghettoes than to their co-workers possessed of more conventional backgrounds.

On balance, these papers should be valued more for the difficulty of the questions posed than for the few tentative and untried solutions tendered for experiment. A compact report on developments in the law of labor arbitration in 1968 and a cumulative index of authors and subjects reported in the 16 printed volumes covering the 22 annual meetings of the Academy are useful appendices to the volume.

—Alfred Kamin
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Loyola University of Chicago

(Word of Professor Kamin's death was received after this review went to press.)

Labor abroad

American Labor and United States Foreign Policy. By Ronald Radosh. New York, Random House, Inc. 1969. 463 pp. $10.

This is a self-proclaimed essay in "radical history." If by this is meant rejection of all the canons of historical scholarship, the author has been successful: sloganeering is substituted for logic, invective for analysis, fiction for fact.

The title is misleading. Out of 450 text pages, 270 are devoted to the period 1916–19, when the American labor movement was hardly a major political force. Of the nine chapters devoted to these years, no less than five full chapters and parts of others deal with the activities of people like John Spargo and William Walling, who were hardly in the mainstream of the labor movement, to put it mildly.

The period 1919–45 is covered in four pages. Almost nothing about the foreign policy role of the Communist Party from its strongholds in the CIO; of the support given by both the AFL and the CIO to the foreign policy of President Roosevelt; of labor assistance to anti-Nazi groups. The only reference to the momentous events of the Great Depression and their impact on labor ideology is the erroneous statement that "the National Recovery Administration turned unionism into a semipublic institution whose organization was part of an official government program."

The rest of the book is concerned with the so-called "Lovestone diplomacy" in Europe and with the activities of Serafino Romualdi and others in Latin America. It consists of one long indictment, relying heavily on such objective journals as *The Nation*, *The New Republic*, *Monthly Review*, and *Viet Report*. There is certainly much in the record that is subject to legitimate criticism, but the author's technique reminds one of a midnight Western (or should I say Eastern?); there are only good guys and bad guys. There is virtually no use of original European and Latin American source materials and the effort is amateurish and superficial.

Nowhere in the book is there any serious treatment of labor's role in the Marshall Plan, in the formulation of American Middle Eastern policy, of its impact upon Japan, of labor participation in the U.S. aid program. One would also have thought that a book with this title would have contained some analysis of the labor attaché program, and of relations with ILO, ICFTU, and WFTU. Apparently only those matters were included which helped sustain the author's thesis that "the new business collectivism, initiated during the presidency of Woodrow Wilson, has come to resemble the type of business-government alliance established by Benito Mussolini in Fascist Italy."

My colleague John Windmuller will publish in another place a sample of the large number of factual errors that abound in this book. But one I cannot pass over is Radosh's characterization of the late David Saposs as a former Communist, a falsehood initiated by the Dies Committee. Saposs was a staunch opponent of Communism all his life.

On every count—the quality of the research, of the writing, of the analysis—this is a bad book.

—WALTER GALENSON
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Cornell University

Public bargaining

Perspective In Public Employee Negotiation. Edited by Keith Ocheltree. Chicago, Public Personnel Association, 1969. 98 pp. $10.

As action in collective bargaining in the public sector accelerates, so does the publication of materials reporting and analyzing these developments. Most of them so far have been collections of essays by a wide variety of experts in collective bargaining generally, reflecting the newness as well as the rapid tempo of developments in this field, the complexity of its issues and portents and the substantial differences which have emerged not only among the States but among different levels of government within States. This approach has the advantage of bringing a significant collection of expertise to bear on the problem. It also has the disadvantage of having a large number of people feeling the elephant from different vantage points, lending a certain amount of unevenness and inconsistency in reporting the results and little overall perspective on the subject being examined.

This special issue in the Public Employee Relations Library, the result of a series of seminars on the subject, reflects both the advantages and disadvantages. It contains 13 articles in all. The first two discuss recent developments and the role of the public interest in these matters. The next four report on concrete experiences in public employee bargaining in Canada and in the United States. The seventh article focuses on some of the problems which ensue when professional employees are involved. The following five take up a variety of overall problems which shape the environment of bargaining in the public arena, such as Milton Derber's fine essay in "Who Negotiates For The Public Sector?" and Howard Black's "Legal Considerations in Public Employment Labor Relations." The final article on "Lessons from Experience in the Private Sector" by Robert T. Woodworth does a good job in trying to put the whole matter in perspective.

Aside from a less-than-one-page foreword, there is no attempt to provide these articles with some context. They are not grouped in any kind of meaningful arrangement or succession, nor is there any transition material provided for moving from one article to the next. On balance, however, it is a worthwhile addition to the literature in the field, particularly for the practitioner, because it does make many of the issues stand out and it does provide some concrete case studies in a field which still has a long way to go before anything resembling a unifying set of principles and experiences emerges.

—Seymour L. Wolfbein
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Expanding job content

Job Enlargement: Key to Improved Performance. By Peter P. Schoderbek and William E. Reif. Ann Arbor, Mich., University of Michigan, Bureau of Industrial Relations, 1969. 113 pp., bibliography. $8.

This book is based on a recent study of the job enlargement interests and experiences of 276 companies randomly selected from the *Fortune* 500 Directory. According to the authors, the purpose of job enlargement is threefold: 1) expand job content through a greater variety of knowledge and skill, 2) provide for "a more complete utilization of . . . cognitive and motor abilities," and 3) increase the degree of freedom and amount of responsibility for the quality and quantity of work performed. Professor Schoderbek and Mr. Reif point out that the key factor is increasing the variety of tasks performed by an employee, not merely adding more of the same kind of tasks (the latter is job extension, not enlargement).

Starting with an excellent introductory chapter on the history and background of job enlargement, the authors analyze current trends in terms of reasons for its use, number of projects undertaken, and organizational changes resulting from its adoption. Particular attention is given to production, clerical, and supervisory applications.

Major advantages cited by corporate users include increase in job satisfaction, reduction in costs, increases in quality of work, increases in quantity of output, and decreases in monotony. The authors found such disadvantages as problems in overcoming resistance to change, some employees not capable or unwilling to grow with their jobs, increases in training time, and occasional union opposition. In their final chapters, Professor Schoderbek and Mr. Reif address themselves to these problems and offer a series of practical suggestions and guidelines for overcoming them. Of central importance is the justification of job enlargement to top management through the use of objectively determinable results—lower costs, greater output, and higher profits. Chapter IV, "Resistance to Change," will be of particular interest to the practitioner.

While not written as a philosophical underpinning for job enlargement, the authors contend that it is a useful application of McGregor's Theory Y (the integration of the individual's goals with those of the organization). In their opinion, job enlargement can best be "expressed as an attitude," not just "as a technique, and that it should be viewed as an approach which (will) improve and upgrade practically any job in the organization." Furthermore, job enlargement is not a case of job satisfaction versus the economic interests of the firm. Their research indicates that job satisfaction and economic goals need not be in conflict.

Professor Schoderbek and Mr. Reif have done an excellent job in the development of the concept, stating the issues, presenting the advantages and disadvantages, and providing the reader with information as to its current use (and misuse) in business and industry. Their position is that it is one of the keys to improved performance.

—Don R. Sheriff

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A 60-book summary of labor's struggles

American Labor: from Conspiracy to Collective Bargaining. Created by Leon Stein and Philip Taft. New York, Arno Press, 1970. $744.50, 60-volume set; varying prices for individual titles.

To provide a readable, scholarly collection of books that tell the story of the labor movement is indeed a formidable task. Philip Taft and Leon Stein accepted such an assignment, and the result is a 60-volume set of out-of-print accounts of labor's struggles entitled *American Labor: from Conspiracy to Collective Bargaining.* Some of the books in the collection are texts, others are evaluations by participants in the movement focusing on the exploitation of women, children, and immigrants as well as biographical sketches and histories of particular unions. These personal dialogues are appropriate for relating the history of labor since for a long time persons outside the movement tended to ignore it except when violence or some other crisis erupted.

In *The American Labor Movement,* Mary Beard says, "It is a significant comment on American intellectuals that it was not until 1918 that there was any authoritative and exhaustive history of the American labor movement. It is still more significant that the preparation of this history was undertaken, not by professional historians, but by economists who could not after all entirely ignore labor in studying industry." A few of the economists contributing to this series are Louis Lorwin (Louis Levine), John R. Commons, Sumner H. Slichter, Solomon Blum, Paul H. Douglas, and Richard T. Ely.

Most labor historians consider *The Labor Movement in America* by Richard Ely to be the first modern history of the labor movement, though it has been criticized for endorsing a socialist program. Nevertheless, the thoughts are interesting and still timely despite the 1886 copyright date. Ely talks of the economical and educational value of labor organizations and states that "The organization of labor . . . is an indispensable condition of the improvement of the masses, and it must be extended and also pursued on a more elevated ethical plane, if it is to accomplish its legitimate ends. There must be displayed a greater willingness to yield personal advantage to the common good . . ."

Simon Newcomb, an astronomer who thought human events could be regulated with the same mathematical exactness as the stars and author of *A Plain Man's Talk on the Labor Question,* joined with other academicians in calling Ely's book an anarchist's ravings. Newcomb says that ". . . the reason why the laborer of today is so much better off, is that the force of circumstances have been stronger than his theory. Capitalists have persisted in building railways to bring him the products of other regions and in making machinery to supply him with clothes and furniture; in a word, to do for him the very thing which, according to his theory, it is disadvantageous to have done. Under these circumstances, I earnestly hope that labor organizations will not succeed in doing themselves irreparable damage by putting this old theory into operation. I hope the common-sense of society will prevail upon them to see that the laborer is best supplied with the necessaries of life when every man is at work at the very best wages he can get, be they high or low."

In many cases, of course, the wages were lower than the laborer thought they should be. And, as Ely points out, ". . . Employers rarely offer an advance voluntarily, for they are like purchasers of other commodities. Does my reader offer seventeen dollars for a garment when the price asked is only sixteen dollars?" So, workers organize and hold back their commodity for the price "which the state of the labor market justifies."

". . . The method of initiating a strike does not determine its duration and intensity. These are the resultants of the motives enlisted, the number of participants, and the methods used in conducting the conflict. Such methods include the chief tactical problems in strike management; the strategy directed upon the participants, the non-

striking laborer, the employer, and the public." This analysis is part of an overall account of what happens when workers take collective action to improve their lot. In *The Strike: A Study of Collective Action*, Ernest T. Hiller details the requirements and structure of the strike and the bargaining that follows.

Another book on strikes by Edward Levinson gives a vivid picture of Pearl L. Bergoff, self-proclaimed King of the Strikebreakers during the 1930's. One section in *I Break Strikes* tells of the finances of strikebreaking: "The only standing overhead is the maintenance of the central and branch offices. In the cases of at least half a dozen large practitioners this expense is avoided. They carry their offices 'in their hats.' When the long-awaited moment comes and the fink chieftain is chosen to break a strike, he can hire a store, a loft, or an old stable for recruiting quarters and pass the rent on to the company. Office equipment is scanty. One of the few necessary full-time employees, aside from the operatives on the clients' payrolls, is a man who can read. In the old days he read the New York *Call*, today most likely he peruses the *Daily Worker*. The office will thus learn of impending strikes. . . . Once a strike appears inevitable, however, the purse strings will be loosened. The solicitors become high-powered salesmen, with expense accounts for dinners, liquor, theaters, and cigars. Since the profits are so large, there can always be a gratituty for any helpful company executive, lawyer, or superintendent who helps the agency land the contract."

Discussing the hope for industrial peace in his book, *Labor Economics*, Solomon Blum poses the question, "In spite of the difficulties lying in the way of settlement by agreement, may it not be feasible to attain peace in industry by the intervention of the state and the use of force to make the rival parties compose their differences amicably?" but then concludes that ". . . with labor in its present frame of mind, the use of coercion is generally impracticable, and would be productive of harm to the cause of peace. Coercion will be feasible only when the law which it is to enforce is accepted by the large proportion of the workers."

For labor, Professor Blum says that the "task of the trade union is far heavier than getting favorable legislation through Congress or the state legislatures. Its task is to convince liberal opinion, both among industrial workers and outside the ranks of labor, not of the more generalized right of labor organizations to existence, but of the peculiar virtues of labor organizations as active and unique agencies of the general welfare."

In their observations on *The Working Class Movement in America*, Edward and Eleanor Marx Aveling (daughter of Karl Marx) are a bit stronger in their commitment to organization: "To reduce the possibility of funerals, first-class and otherwise, to a minimum, it is clear that the workers of America must organize." They explain, "The working men and the capitalists in the majority of cases quite understand that each, as a class, is the deadly and inexorable foe of the other . . ." and "that the next years of the nineteenth century will be taken up chiefly by an internecine struggle, that will end, as the capitalists hope, in the subjugation of the working class; as the working men know, in the abolition of all classes."

Books in this collection give comprehensive coverage of the specific areas where workers organized to gain what they felt employers were collectively denying them.

An excellent treatise on child labor by Edwin Markham, Benjamin B. Lindsay, and George Creel entitled *Children in Bondage* says there is "a hideous squandering of energy in the ununiformed unemployed armies of workers who drift upon our streets, or crowd into our churches crying for bread. With all these labor resources to draw upon, what reason have we for wasting the precious energy of the children, sucking the marrow out of their bones, in the mills and mines and fields and streets? A parent should no more devour the health and strength of his child than a hen should devour her own eggs. We let the energies of grown men go to waste like water in a sink-hole. We sweep the children into the labor market, blasting their sacred energies, and blighting the generation that is to come. Could any social situation be more illogical, more inhuman, more insane"? But, they go on, "Child labor fighting, to be sure, isn't very spectacular. One cannot run into a cotton mill, mine, or glass house and drag the children out. One doesn't save the doomed children of the tenements by carrying them down a ladder while a multitude cheers. The process of rescue is through statutory enactments; and it takes a lot of time and trouble to write laws upon the books. Quite often the children themselves are never seen, nor word of thanks ever heard."

Florence Kelley had a strong interest in abolishing child labor and her book, *Some Ethical Gains Through Legislation*, is part of the set. As general secretary of the National Consumers' League she carried the responsibility of providing the public with "Information on what articles on sale in shop and store represent the lifeblood of little ones and how to look for the League's label so that those purchases may be avoided which swell the fortunes of employers deaf to pity and humanity."

The League was a powerful factor in forcing enactment of laws to protect wage-earning women from overwork, and worked hard to make the statutes effective. Other groups were struggling to gain wages for women equal to those received by men. In *Women and the Trades*, Elizabeth Beardsley Butler explains, "The social fact of woman's customary position in the household, the position of a dependent who receives no wages for her work, thus lies behind the economic fact of her insufficient wage in the industrial field. It is expected that she has men to support her."

But as Carroll Wright points out in his *The Working Girls of Boston*, "The information furnished by the working girls shows that the wages earned by them constitute in many cases the chief, and sometimes the entire support of the family, the parents looking to the earnings of one, two, three, and four daughters to pay the household bills; the father often being reported not able to work much or always, on account of disability, from lack of steady work or possibly, from disinclination to work while there is revenue from any other source."

A further interesting comment on the status of women, written in 1913 by Edith Abbott in *Women in Industry*, should interest persons concerned with today's women's rights movement ". . . attention may be called once more to the fact that the 'woman movement' of the last century belongs most exclusively to educated women. So far as industrial employments are concerned, they were considered especially suited to women at a time when men did not regard such work as profitable enough for themselves. By prior right of occupation, and by the invitation of early philanthropists and statesmen, the working-woman holds a place of her own in this field. In the days when the earliest factories were calling for operatives the public moralist denounced her for 'eating the bread of idleness' if she refused to obey the call. Now that there is some fear lest profuse immigration may give us an over-supply of labor, and that there may not be work enough for the men, it is the public moralist again who finds that her proper place is at home and that the world of industry was created for men. The woman of the working classes was self-supporting more than three quarters of a century ago, and even long before that she was reproached for 'eating the bread of idleness.' The efforts of the professional woman to realize a new ideal of pecuniary independence, which have taken her out of the home and into new and varied occupations, belong to recent, if not contemporary history. But this history, for her, covers a social revolution, and the world she faces is a new one. The woman of the working classes finds it, so far as her measure of opportunity goes, very much as her great grandmother left it."

A quote from Samuel Gompers' *Labor and the Common Welfare* sums up what this collection is all about: "All we can do in our day is to keep on and on, true to our fellows, consciously and confidently relying upon the future, unhampered by prejudice and sordid avarice, to accord our purposes, efforts, and achievements in the interest of humanity the place in history which they justly deserve."

Besides the texts referred to in this note, others worthy of mention are McAlister Coleman's *Men and Coal*, a study of the mine workers and their union history—"with the miners, whether or not they belonged to the U.M.W. of A. the influence of that organization upon the life and fortune of every mine worker has been so preponderant as to make its story the bulk of any adequate chronicle of American coal mining."

A book by Heber Blankenhorn, *The Strike for Union*, details the mine workers' efforts in 1922 to organize mines in three Pennsylvania counties and the reasons for their failure. *Civil War in West Virginia* by Winthrop D. Lane chronicles the history of the United Mine Workers' efforts to organize West Virginia's coal fields. There is also a study on *The Steel Worker* (John Andrew Fitch), *The Women's Garment Workers* (Louis Lorwin) and a study by Samuel Yellen, *American Labor Struggles*, of 10 "epic struggles in American labor history, from the railroad strikes of 1877 to the general strike in San Francisco in 1934." Separate

studies of the *Knights of St. Crispin* (Don D. Lesochier) and the Molly Maguires (*Labor Disturbances in Pennsylvania, 1850–1880* by Walter J. Coleman) are included.

A book on the "new unionism" that developed during the first decade following World War I is in the set, as is John R. Commons' *Industrial Goodwill*. Another fine addition to the collection is a grouping of speeches by Henry Demarest Lloyd (*Men, the Workers*) which "presents his record of an uncommonly dedicated crusader who attached trustified wealth in defense of the working man."

Crystal Eastman's extensive work, *Work Accidents and the Law*, on the investigation of work accidents and employer liability is included, as well as I. M. Rubinow's *Social Insurance*, a study which provided the foundation for the first unemployment compensation laws.

Two "original editions" prepared by the editors contain documents which reflect trends of thought on labor topics during the 19th century and the transformations as the movement progressed into the 20th century. A third original volume is a compilation of material that chronicles the history of the Pullman Strike. These three books in themselves do much to provide the feelings of the times. Also useful in the series are the introductory comments provided by the editors. More frequent use of explanatory statements by the editors at the beginning of each volume might have helped connect and place each contribution into overall perspective. An index to the collection probably would have been helpful.

The volumes assembled here give a fairly complete picture of what the times were like and should prove to be excellent source material for scholar and student alike.

—Barbara V. Freund
Office of Publications
Bureau of Labor Statistics

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Current Labor Statistics

1. Employment status of the noninstitutional population, 16 years and over, 1947 to date

[In thousands]

Year	Total noninstitutional population	Total labor force		Civilian labor force						Not in labor force
		Number	Percent of population	Total	Employed			Unemployed		
					Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
1947	103,418	60,941	58.9	59,350	57,039	7,891	49,148	2,311	3.9	42,477
1948	104,527	62,080	59.4	60,621	58,344	7,629	50,713	2,276	3.8	42,447
1949	105,611	62,903	59.6	61,286	57,649	7,656	49,990	3,637	5.9	42,708
1950	106,645	63,858	59.9	62,208	58,920	7,160	51,760	3,288	5.3	42,787
1951	107,721	65,117	60.4	62,017	59,962	6,726	53,239	2,055	3.3	42,604
1952	108,823	65,730	60.4	62,138	60,254	6,501	53,753	1,883	3.0	43,093
1953	110,601	66,560	60.2	63,015	61,181	6,261	54,922	1,834	2.9	44,041
1954	111,671	66,993	60.0	63,643	60,110	6,206	53,903	3,532	5.5	44,678
1955	112,732	68,072	60.4	65,023	62,171	6,449	55,724	2,852	4.4	44,660
1956	113,811	69,409	61.0	66,552	63,802	6,283	57,517	2,750	4.1	44,402
1957	115,065	69,729	60.6	66,929	64,071	5,947	58,123	2,859	4.3	45,336
1958	116,363	70,275	60.4	67,639	63,036	5,586	57,450	4,602	6.8	46,088
1959	117,881	70,921	60.2	68,369	64,630	5,565	59,065	3,740	5.5	46,960
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
1961	121,343	73,031	60.2	70,459	65,746	5,200	60,546	4,714	6.7	48,312
1962	122,981	73,442	59.7	70,614	66,702	4,944	61,759	3,911	5.5	49,539
1963	125,154	74,571	59.6	71,833	67,762	4,687	63,076	4,070	5.7	50,583
1964	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394
1965	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058
1966	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288
1967	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527
1968	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291
1969	137,841	84,239	61.1	80,733	77,902	3,606	74,296	2,831	3.5	53,602

2. Employment status, by color, sex and age, seasonally adjusted,[1] quarterly averages

[In thousands]

Characteristic	1970		1969				1968				1967			Annual average	
	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1969	1968
WHITE															
Civilian labor force	73,263	73,316	72,475	71,942	71,466	71,285	70,392	70,045	69,851	69,587	69,440	68,944	68,210	71,778	69,975
Men, 20 years and over	42,463	42,245	41,956	41,842	41,639	41,656	41,423	41,373	41,235	41,230	41,175	40,972	40,673	41,772	41,317
Women, 20 years and over	24,378	24,513	24,156	23,949	23,684	23,566	23,122	22,843	22,741	22,565	22,632	22,276	21,775	23,838	22,820
Both sexes, 16–19 years	6,422	6,558	6,363	6,151	6,143	6,036	5,847	5,829	5,875	5,792	5,633	5,696	5,762	6,168	5,838
Employed	70,059	70,527	70,096	69,575	69,260	69,135	68,267	67,804	67,617	67,311	67,032	66,576	65,888	69,518	67,750
Men, 20 years and over	41,131	41,180	41,091	40,995	40,871	40,926	40,677	40,553	40,405	40,376	40,300	40,101	39,772	40,978	40,503
Women, 20 years and over	23,347	23,587	23,327	23,120	22,891	22,794	22,372	22,066	21,987	21,777	21,766	21,416	20,963	23,032	22,052
Both sexes, 16–19 years	5,581	5,760	5,678	5,460	5,498	5,415	5,218	5,185	5,225	5,158	4,966	5,059	5,153	5,508	5,195
Unemployed	3,204	2,789	2,379	2,367	2,206	2,150	2,125	2,241	2,234	2,276	2,408	2,368	2,322	2,260	2,225
Men, 20 years and over	1,332	1,065	865	847	768	730	746	820	830	854	875	871	901	794	814
Women, 20 years and over	1,032	926	829	829	793	772	750	777	754	788	866	860	812	806	768
Both sexes, 16–19 years	841	798	685	691	645	648	629	644	650	634	667	637	609	660	643
Unemployment rate	4.4	3.8	3.3	3.3	3.1	3.0	3.0	3.2	3.2	3.3	3.5	3.4	3.4	3.1	3.2
Men, 20 years and over	3.1	2.5	2.1	2.0	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.2	1.9	2.0
Women, 20 years and over	4.2	3.8	3.4	3.5	3.3	3.3	3.2	3.4	3.3	3.5	3.8	3.9	3.7	3.4	3.4
Both sexes, 16–19 years	13.1	12.2	10.8	11.2	10.5	10.7	10.8	11.0	11.1	10.9	11.8	11.2	10.6	10.7	11.0
NEGRO AND OTHER															
Civilian labor force	9,226	9,224	9,056	8,979	8,867	8,914	8,737	8,700	8,828	8,762	8,733	8,632	8,632	8,954	8,759
Men, 20 years and over	4,706	4,700	4,622	4,593	4,549	4,554	4,513	4,517	4,562	4,543	4,496	4,507	4,505	4,579	4,535
Women, 20 years and over	3,688	3,682	3,616	3,595	3,535	3,550	3,468	3,414	3,467	3,433	3,444	3,348	3,347	3,574	3,446
Both sexes, 16–19 years	832	842	818	791	783	810	756	769	799	786	793	777	780	801	778
Employed	8,447	8,598	8,500	8,394	8,271	8,371	8,164	8,132	8,233	8,147	8,073	8,006	7,986	8,384	8,169
Men, 20 years and over	4,434	4,498	4,445	4,416	4,382	4,397	4,335	4,349	4,388	4,351	4,305	4,328	4,303	4,410	4,356
Women, 20 years and over	3,416	3,468	3,429	3,372	3,307	3,352	3,264	3,205	3,246	3,200	3,191	3,112	3,115	3,365	3,229
Both sexes, 16–19 years	597	632	626	606	582	622	565	578	599	596	577	566	568	609	584
Unemployed	779	626	556	585	596	543	573	568	595	615	660	626	646	570	590
Men, 20 years and over	272	201	177	177	167	157	178	168	174	192	191	179	202	169	179
Women, 20 years and over	272	215	187	223	228	198	204	209	221	233	253	236	232	209	217
Both sexes, 16–19 years	235	210	192	185	201	188	191	191	200	190	216	211	212	192	194
Unemployment rate	8.4	6.8	6.1	6.5	6.7	6.1	6.6	6.5	6.7	7.0	7.6	7.3	7.5	6.4	6.7
Men, 20 years and over	5.8	4.3	3.8	3.9	3.7	3.4	3.9	3.7	3.8	4.2	4.2	4.0	4.5	3.7	3.9
Women, 20 years and over	7.4	5.8	5.2	6.2	6.4	5.6	5.9	6.1	6.4	6.8	7.3	7.0	6.9	5.8	6.3
Both sexes, 16–19 years	28.2	24.9	23.5	23.4	25.7	23.2	25.3	24.8	25.0	24.2	27.2	27.2	27.2	24.0	24.9

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

3. Full- and part-time status of the civilian labor force

[In thousands—not seasonally adjusted]

Employment status	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
FULL TIME															
Civilian labor force	74,884	73,555	69,383	69,255	69,116	69,018	68,869	69,204	69,296	69,491	70,350	73,713	73,514	69,700	68,332
Employed:															
Full-time schedules [1]	68,044	66,779	64,413	64,166	64,108	63,997	64,155	65,302	65,517	65,594	66,206	68,854	68,471	65,503	64,225
Part-time for economic reasons	3,088	2,831	2,128	2,301	2,139	2,117	2,135	1,998	1,916	1,955	2,069	2,607	2,456	2,055	1,970
Unemployed, looking for full-time work	3,753	3,945	2,842	2,787	2,869	2,904	2,579	1,904	1,864	1,942	2,075	2,251	2,587	2,142	2,138
Unemployment rate	50	5.4	4.1	4.0	4.2	4.2	3.7	2.8	2.7	2.8	2.9	3.1	3.5	3.1	3.1
PART TIME															
Civilian labor force	9,917	10,496	12,358	12,706	12,574	12,266	11,850	12,212	12,131	12,019	10,634	8,803	9,283	11,032	10,405
Employed (voluntary part-time)	9,159	9,772	11,816	11,940	11,711	11,375	11,023	11,488	11,284	11,122	9,751	8,185	8,688	10,343	9,726
Unemployed, looking for part-time work	757	724	542	765	863	890	827	724	847	898	883	618	594	689	679
Unemployment rate	7.6	6.9	4.4	6.0	6.9	7.3	7.0	5.9	7.0	7.5	8.3	7.0	6.4	6.2	6.5

[1] Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.

4. Employment and unemployment, by age and sex, seasonally adjusted [1]

[In thousands]

Employment status	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL															
Total labor force	85,967	85,304	85,783	86,143	86,087	85,590	85,599	85,023	84,872	85,051	84,868	84,517	84,310	84,239	82,272
Civilian labor force	82,813	82,125	82,555	82,872	82,769	82,249	82,213	81,583	81,379	81,523	81,325	80,987	80,789	80,733	78,737
Employed	78,638	78,225	78,449	78,924	79,112	78,822	79,041	78,737	78,528	78,445	78,194	78,142	77,931	77,902	75,920
Agriculture	3,519	3,554	3,613	3,586	3,550	3,499	3,426	3,435	3,434	3,446	3,498	3,614	3,561	3,606	3,817
Nonagriculture	75,119	74,671	74,836	75,338	75,562	75,323	75,615	75,302	75,094	74,999	74,696	74,528	74,370	74,296	72,103
Unemployed	4,175	3,900	4,106	3,948	3,657	3,427	3,172	2,846	2,851	3,078	3,131	2,845	2,858	2,831	2,817
MEN 20 YEARS AND OVER															
Total labor force	50,024	49,906	50,020	50,032	49,920	49,707	49,736	49,534	49,544	49,642	49,642	49,488	49,405	49,406	48,834
Civilian labor force	47,294	47,154	47,226	47,199	47,060	46,836	46,826	46,578	46,531	46,599	46,586	46,443	46,338	46,351	45,852
Employed	45,524	45,521	45,593	45,667	45,709	45,534	45,674	45,553	45,533	45,511	45,465	45,485	45,335	45,388	44,859
Agriculture	2,593	2,603	2,625	2,602	2,537	2,479	2,473	2,499	2,482	2,575	2,593	2,670	2,646	2,636	2,816
Nonagriculture	42,931	42,918	42,968	43,065	43,172	43,055	43,201	43,054	43,051	42,936	42,872	42,815	42,689	42,752	42,043
Unemployed	1,770	1,633	1,633	1,532	1,351	1,302	1,152	1,025	998	1,088	1,121	958	1,003	963	993
WOMEN, 20 YEARS AND OVER															
Civilian labor force	28,500	28,026	27,885	28,274	28,295	28,066	28,073	27,875	27,671	27,767	27,634	27,664	27,524	27,413	26,266
Employed	27,073	26,772	26,476	27,022	27,016	26,925	27,060	26,897	26,663	26,699	26,543	26 626	26,512	26,397	25,281
Agriculture	545	573	567	571	583	630	586	585	555	554	535	582	547	593	606
Nonagriculture	26,528	26,199	25,909	26,451	26,433	26,295	26,474	26,312	26,108	26,145	26,008	26,044	25,965	25,804	24,675
Unemployed	1,427	1,254	1,409	1,252	1,279	1,114	1,013	978	1,008	1,068	1,091	1,038	1,012	1,015	985
BOTH SEXES, 16–19 YEARS															
Civilian labor force	7,019	6,945	7,444	7,399	7,414	7,347	7,314	7,130	7,177	7,157	7,105	6,880	6,927	6,970	6,618
Employed	6,041	5,932	6,380	6,235	6,387	6,363	6,307	6,287	6,332	6,235	6,186	6,031	6,084	6,117	5,780
Agriculture	381	378	421	413	430	390	367	351	397	317	370	362	368	377	394
Nonagriculture	5,660	5,554	5,959	5,822	5,957	5,973	5,940	5,936	5,935	5,918	5,816	5,669	5,716	5,739	5,385
Unemployed	978	1,013	1,064	1,164	1,027	984	1,007	843	845	922	919	849	843	853	839

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

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5. Employment totals, by occupation, with unemployment rates, seasonally adjusted,[1] quarterly averages

Characteristic	1970		1969				1968				1967			Annual average	
	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1969	1968
EMPLOYMENT (in thousands)	78,533	78,992	78,570	78,090	77,550	77,418	76,409	76,017	75,898	75,392	75,121	74,630	73,911	77,902	75,921
White-collar workers	37,981	37,938	37,509	36,923	36,677	36,264	35,906	35,732	35,419	35,140	34,888	34,456	33,943	36,845	35,551
Professional and technical	11,129	11,026	10,936	10,764	10,740	10,638	10,473	10,392	10,295	10,142	10,067	9,952	9,761	10,769	10,325
Managers, officials, and proprietors	8,290	8,215	8,141	7,970	7,993	7,841	7,897	7,827	7,661	7,716	7,633	7,630	7,453	7,987	7,776
Clerical workers	13,748	13,906	13,655	13,478	13,281	13,171	12,876	12,823	12,816	12,694	12,624	12,343	12,250	13,397	12,803
Sales workers	4,815	4,791	4,777	4,711	4,663	4,614	4,660	4,690	4,647	4,588	4,564	4,531	4,479	4,692	4,647
Blue-collar workers	27,663	28,236	28,389	28,425	27,931	28,202	27,774	27,491	27,513	27,297	27,279	27,343	27,175	28,237	27,525
Craftsmen and foremen	10,109	10,264	10,265	10,174	10,044	10,298	10,147	9,972	10,003	9,936	9,827	9,790	9,853	10,193	10,015
Operatives	13,891	14,168	14,412	14,589	14,208	14,264	14,051	13,911	13,956	13,896	13,918	13,999	13,787	14,372	13,955
Nonfarm laborers	3,663	3,804	3,712	3,662	3,679	3,640	3,576	3,608	3,554	3,465	3,534	3,554	3,535	3,672	3,555
Service workers	9,589	9,673	9,589	9,493	9,467	9,558	9,411	9,385	9,395	9,337	9,330	9,277	9,276	9,528	9,381
Farmworkers	3,234	3,153	3,089	3,231	3,417	3,438	3,346	3,400	3,507	3,649	3,654	3,556	3,448	3,292	3,464
Unemployment rate	4.8	4.1	3.6	3.6	3.5	3.4	3.4	3.6	3.6	3.7	3.9	3.9	3.9	3.5	3.6
White-collar workers	2.8	2.4	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.2	2.2	2.0	2.1	2.0
Professional and technical	1.9	1.9	1.5	1.4	1.3	1.1	1.2	1.3	1.2	1.2	1.3	1.3	1.4	1.3	1.2
Managers, officials, and proprietors	1.3	1.0	.9	1.0	.9	.9	1.0	1.1	.9	.9	1.0	.9	.9	.9	1.0
Clerical workers	4.0	3.3	3.2	3.2	2.8	2.9	2.8	2.9	3.0	3.1	3.4	3.3	2.8	3.0	3.0
Sales workers	4.0	3.2	2.8	3.0	2.9	2.9	2.8	2.6	2.7	3.0	3.2	3.6	2.9	2.9	2.8
Blue-collar workers	6.0	4.9	4.3	4.0	3.8	3.7	3.8	4.2	4.0	4.4	4.5	4.5	4.6	3.9	4.1
Craftsmen and foremen	3.9	2.6	2.2	2.2	2.1	2.1	2.2	2.4	2.4	2.5	2.5	2.3	2.8	2.2	2.4
Operatives	6.6	5.7	5.0	4.4	4.3	4.1	4.3	4.5	4.3	4.8	5.1	5.1	5.0	4.4	4.5
Nonfarm laborers	9.4	7.9	6.9	7.2	6.5	6.4	6.7	7.4	7.0	7.7	7.8	7.6	8.0	6.7	7.2
Serviceworkers	5.0	4.7	3.9	4.5	4.4	4.0	4.3	4.5	4.6	4.3	4.9	4.5	4.2	4.2	4.5
Farmworkers	2.5	2.1	1.8	2.2	1.9	1.6	1.6	2.4	2.3	1.9	2.3	2.4	2.4	1.9	2.1

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of a seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

6. Unemployed persons, by reason for unemployment

[In thousands—not seasonally adjusted]

Reason for unemployment, age, and sex	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
Total, 16 years and over	4,510	4,669	3,384	3,552	3,733	3,794	3,406	2,628	2,710	2,839	2,958	2,869	3,182	2,831	2,817
Lost last job	1,778	1,598	1,658	1,669	1,797	1,787	1,595	1,133	939	882	823	894	979	1,017	1,070
Left last job	635	565	447	507	441	473	485	378	421	451	586	507	459	436	431
Reentered labor force	1,342	1,567	944	1,001	1,143	1,158	999	825	1,011	1,093	1,105	997	1,010	965	909
Never worked before	756	939	333	375	351	377	328	292	339	414	445	471	734	413	407
Male, 20 years and over	1,667	1,584	1,403	1,498	1,606	1,678	1,456	1,052	909	906	914	888	945	963	993
Lost last job	1,013	911	942	988	1,059	1,144	997	693	524	458	440	469	534	556	599
Left last job	230	206	170	214	200	185	197	150	141	141	209	192	170	164	167
Reentered labor force	368	413	251	261	312	310	230	188	226	267	235	200	195	216	205
Never worked before	56	55	40	34	35	39	32	20	18	40	30	24	46	27	22
Female, 20 years and over	1,391	1,302	1,205	1,171	1,264	1,238	1,086	840	994	1,097	1,202	1,119	987	1,015	985
Lost last job	574	540	562	497	542	451	418	303	309	314	288	310	307	335	341
Left last job	256	192	174	188	156	200	177	138	183	209	237	196	184	171	167
Reentered labor force	500	473	435	439	530	529	437	354	457	501	596	549	434	455	422
Never worked before	62	97	34	47	36	58	54	46	45	72	81	64	62	55	55
Both sexes, 16 to 19 years	1,451	1,783	776	883	863	878	864	736	807	836	842	865	1,250	853	839
Lost last job	191	147	155	184	196	192	180	137	106	110	95	115	138	126	130
Left last job	149	167	103	104	85	88	111	90	97	101	140	119	105	101	97
Reentered labor force	474	682	259	301	302	319	331	283	328	324	274	248	380	294	281
Never worked before	638	786	259	293	280	280	241	226	276	301	334	383	627	331	330

7. Unemployment rates, by age and sex, seasonally adjusted [1]

Age and sex	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL															
16 years and over	5.0	4.7	5.0	4.8	4.4	4.2	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.5	3.6
16 to 19 years	13.9	14.6	14.3	15.7	13.9	13.4	13.8	11.8	11.8	12.9	12.9	12.3	12.2	12.2	12.7
16 and 17 years	15.2	16.0	15.6	18.7	15.7	16.3	17.2	13.7	14.3	16.5	16.1	15.8	14.6	14.5	14.7
18 and 19 years	13.2	13.3	13.8	13.8	12.4	11.7	11.6	10.2	9.2	10.4	10.6	9.8	10.3	10.5	11.2
20 to 24 years	8.6	7.4	8.1	7.7	6.8	7.3	6.1	5.8	5.8	6.4	6.5	5.4	5.8	5.7	5.8
25 years and over	3.5	3.2	3.3	3.1	3.0	2.6	2.4	2.2	2.2	2.4	2.4	2.3	2.3	2.2	2.3
25 to 54 years	3.7	3.3	3.4	3.2	3.1	2.7	2.5	2.3	2.1	2.4	2.5	2.3	2.3	2.3	2.3
55 years and over	2.9	3.0	3.3	2.8	2.7	2.4	2.0	2.1	1.9	2.3	2.2	2.0	2.0	2.0	2.2
MALE															
16 years and over	4.5	4.3	4.4	4.2	3.6	3.6	3.3	2.9	2.9	3.1	3.2	2.8	2.9	2.8	2.9
16 to 19 years	14.1	14.8	15.0	15.2	12.5	13.0	12.6	11.0	11.7	11.8	12.0	11.3	11.8	11.4	11.6
16 and 17 years	15.2	16.6	16.4	17.2	14.6	15.4	14.9	13.1	13.7	14.4	15.0	15.5	14.4	13.7	13.9
18 and 19 years	13.6	13.2	14.6	13.9	10.8	11.0	10.8	9.3	8.9	9.6	9.4	7.8	9.7	9.3	9.6
20 to 24 years	9.1	7.2	7.7	7.9	6.4	6.9	6.1	5.5	5.3	6.3	6.4	4.5	5.3	5.1	5.1
25 years and over	3.0	2.9	2.9	2.6	2.4	2.2	2.0	1.8	1.7	1.9	1.8	1.7	1.7	1.7	1.8
25 to 54 years	3.0	2.9	2.8	2.6	2.3	2.1	2.0	1.7	1.4	1.8	1.8	1.6	1.7	1.6	1.7
55 years and over	2.8	2.8	3.1	2.8	2.8	2.4	2.1	2.2	1.9	2.2	2.0	2.0	1.9	1.9	2.1
FEMALE															
16 years and over	5.9	5.5	5.9	5.7	5.7	5.1	4.8	4.5	4.5	4.9	5.0	4.8	4.6	4.7	4.8
16 to 19 years	13.7	14.3	13.4	16.4	15.6	13.9	15.2	12.8	11.9	14.2	14.2	13.6	12.7	13.3	14.0
16 and 17 years	15.1	15.3	14.6	20.6	17.0	17.3	20.3	14.7	15.0	19.2	17.7	16.2	14.8	15.5	15.9
18 and 19 years	12.7	13.4	12.9	13.7	14.3	12.7	12.4	11.2	9.6	11.3	12.0	12.0	11.0	11.8	12.8
20 to 24 years	8.1	7.7	8.7	7.5	7.2	7.6	6.2	6.1	6.5	6.5	6.6	6.3	6.3	6.3	6.7
25 years and over	4.5	3.8	4.2	3.8	4.0	3.3	3.0	3.0	3.1	3.4	3.4	3.3	3.2	3.2	3.2
25 to 54 years	4.8	4.1	4.3	4.2	4.4	3.6	3.3	3.3	3.4	3.6	3.7	3.6	3.5	3.5	3.4
55 years and over	3.1	3.2	3.6	2.7	2.5	2.3	1.7	1.9	2.0	2.5	2.5	2.1	2.3	2.2	2.3

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

8. Unemployment indicators, seasonally adjusted [1]

[In percent]

Selected categories	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
Total (all civilian workers)	5.0	4.7	5.0	4.8	4.4	4.2	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.5	3.6
Men, 20 years and over	3.7	3.5	3.5	3.2	2.9	2.8	2.5	2.2	2.1	2.3	2.4	2.1	2.2	2.1	2.2
Women, 20 years and over	5.0	4.5	5.1	4.4	4.5	4.1	3.6	3.5	3.6	3.8	3.9	3.8	3.7	3.7	3.8
Both sexes, 16–19 years	13.9	14.6	14.3	15.7	13.9	13.4	13.8	11.8	11.8	12.9	12.9	12.3	12.2	12.2	12.7
White	4.7	4.2	4.6	4.3	4.1	3.8	3.6	3.2	3.2	3.5	3.5	3.2	3.2	3.1	3.2
Negro and other	8.3	8.7	8.0	8.7	7.1	7.0	6.3	5.7	6.2	6.6	6.7	6.4	6.5	6.4	6.7
Married men	2.7	2.5	2.6	2.4	2.2	2.0	1.8	1.7	1.5	1.6	1.7	1.5	1.6	1.5	1.6
Full-time workers	4.6	4.3	4.7	4.4	4.0	3.7	3.4	3.2	3.1	3.1	3.3	3.1	3.1	3.1	3.1
Unemployed 15 weeks and over [2]	.9	.8	.7	.7	.7	.6	.5	.5	.5	.4	.5	.5	.5	.5	.5
State insured [3]	3.5	3.7	3.6	3.1	2.7	2.7	2.5	2.4	2.4	2.2	2.2	2.1	2.2	2.1	2.2
Labor force time lost [4]	5.4	4.9	5.4	5.1	4.8	4.5	4.2	3.9	4.0	4.3	4.3	4.0	4.0	3.9	4.0
OCCUPATION															
White-collar workers	3.1	2.6	2.8	2.9	2.7	2.3	2.1	2.1	2.1	2.4	2.2	2.2	2.2	2.1	2.0
Professional and managerial	2.2	1.5	1.7	1.7	1.8	1.4	1.3	1.5	1.1	1.3	1.3	1.2	1.2	1.2	1.1
Clerical workers	4.4	4.0	3.9	4.0	3.6	3.2	3.1	2.8	3.5	3.4	3.2	3.2	3.2	3.0	3.0
Sales workers	4.0	3.4	4.4	4.1	3.5	3.4	2.8	2.6	2.2	3.5	2.8	2.9	3.2	2.9	2.8
Blue-collar workers	6.6	6.3	6.2	5.7	5.2	5.0	4.6	4.3	4.2	4.2	4.4	3.8	3.8	3.9	4.1
Craftsmen and foremen	4.4	4.0	4.2	3.5	3.1	2.5	2.3	2.3	2.1	2.4	2.6	2.1	1.9	2.2	2.4
Operatives	7.2	6.8	6.7	6.3	6.2	6.0	5.1	5.0	4.9	4.9	4.7	4.2	4.2	4.5	4.4
Nonfarm laborers	9.9	10.4	9.1	8.8	7.4	7.7	8.5	7.4	6.9	6.5	7.6	6.8	7.1	6.7	7.2
Service workers	5.3	5.0	4.9	5.0	4.9	4.8	4.5	3.6	4.0	4.2	4.8	4.5	4.3	4.2	4.5
INDUSTRY															
Nonagricultural private wage and salary workers [5]	5.6	5.2	5.2	4.8	4.6	4.3	3.9	3.6	3.6	3.8	3.9	3.5	3.5	3.5	3.6
Construction	11.0	10.9	11.9	8.1	8.1	7.9	7.1	6.0	5.4	7.3	7.4	7.0	5.9	6.0	6.9
Manufacturing	6.0	5.3	5.2	4.7	4.7	4.6	3.8	3.8	3.7	3.6	3.7	2.9	3.2	3.3	3.3
Durable goods	5.9	5.1	4.9	4.9	4.8	4.7	3.8	3.7	3.6	3.2	3.2	2.3	3.1	3.0	3.0
Nondurable goods	6.2	5.6	5.7	4.5	4.6	4.4	3.8	3.9	3.9	4.2	4.3	3.7	3.3	3.7	3.7
Transportation and public utilities	3.3	3.3	3.3	3.9	3.1	2.4	2.9	2.4	2.4	2.9	2.0	2.0	2.0	2.2	2.0
Wholesale and retail trade	5.3	5.4	5.1	5.5	4.7	4.7	4.3	3.9	3.9	4.2	4.5	4.3	4.1	4.1	4.0
Finance and service industries	4.8	4.1	4.2	3.9	4.0	3.2	3.1	2.7	3.2	3.1	3.4	3.4	3.6	3.2	3.4
Government wage and salary workers	2.0	1.9	2.2	2.2	2.1	2.0	2.2	2.0	2.1	2.4	1.9	1.9	1.8	1.9	1.8
Agricultural wage and salary workers	8.6	5.5	9.3	5.9	6.4	5.8	6.2	6.5	5.2	6.3	6.5	6.5	8.9	6.1	6.3

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

[2] Unemployment rate calculated as a percent of civilian labor force.

[3] Insured unemployment under State programs as a percent of average covered employment.

[4] Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.

[5] Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted [1]

[In thousands]

Period	1970							1969						Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
Less than 5 weeks	2,061	1,961	2,219	2,295	1,995	1,973	1,756	1,515	1,558	1,882	1,756	1,646	1,656	1,629	1,594
5 to 14 weeks	1,334	1,303	1,214	1,075	1,154	1,016	914	893	912	882	995	854	824	827	810
15 weeks and over	711	685	612	569	545	465	409	392	389	363	392	385	400	375	412
15 to 26 weeks	470	450	352	372	363	306	276	272	249	233	240	250	233	242	256
27 weeks and over	241	235	260	197	182	159	133	120	140	130	152	135	167	133	156
15 weeks and over as a percent of civilian labor force	.9	.8	.7	.7	.7	.6	.5	.4	.4	.4	.4	.4	.4	.5	.5
Average (mean) duration, in weeks	9.3	9.5	9.0	8.2	8.4	8.1	7.8	8.1	8.0	7.3	7.9	7.8	8.2	8.0	8.5

[1] These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of **Employment and Earnings.**

10. Unemployment insurance and employment service operations [1]

[All items except average benefits amounts are in thousands]

Item	1970						1969							
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May
Employment service: [2]														
New applications for work	.....	854	857	828	765	950	658	711	762	801	750	874	1,237	850
Nonfarm placements	.....	339	352	328	295	326	311	372	463	503	471	469	512	437
State unemployment insurance programs:														
Initial claims [3 4]	1,118	1,010	1,333	1,078	1,169	1,529	1,363	866	745	655	731	1,105	710	613
Insured unemployment [5] (average weekly volume) [6]	1,583	1,667	1,770	1,798	1,874	1,847	1,375	1,030	864	840	948	1,021	852	906
Rate of insured unemployment [7]	3.0	3.2	3.4	3.5	3.6	3.6	2.7	2.0	1.6	1.6	1.8	2.0	1.7	1.8
Weeks of unemployment compensated	6,080	6,142	6,743	6,956	6,517	6,418	4,692	3,054	3,156	3,104	3,496	3,626	3,123	3,519
Average weekly benefit amount for total unemployment	$49.51	$49.30	$49.00	$48.93	$49.11	$48.49	$47.42	$46.47	$46.25	$45.70	$46.16	$45.30	$44.88	$45.14
Total benefits paid	$291,707	$292,854	$320,224	$331,067	$310,800	$299,352	$214,260	$136,585	$139,536	$136,182	$156,707	$159,161	$135,004	$152,966
Unemployment compensation for ex-servicemen: [8 9]														
Initial claims [3 6]	47	38	47	42	38	44	39	30	29	26	27	32	26	20
Insured unemployment [6] (average weekly volume	73	70	70	69	66	61	48	38	32	32	37	36	30	29
Weeks of unemployment compensated	303	280	294	289	244	242	193	126	127	133	148	143	114	122
Total benefits paid	$15,299	13,972	$14,564	$14,200	$12,028	$11,957	$9,517	$6,240	$6,256	$6,514	$7,156	$6,946	$5,511	$5,847
Unemployment compensation for Federal civilian employees: [9 10]														
Initial claims [3]	15	10	13	11	11	15	12	13	11	10	8	11	10	8
Insured unemployment [5] (average weekly volume)	27	26	27	29	30	28	24	22	18	17	18	19	18	17
Weeks of unemployment compensated	107	107	118	128	109	110	101	75	76	74	77	78	69	73
Total benefits paid	$5,378	$5,323	$5,824	$6,192	$5,239	$5,194	$4,748	$3,465	$3,494	$3,163	$3,497	$3,597	$3,155	$3,318
Railroad unemployment insurance:														
Applications [11]	12	4	8	9	4	9	5	5	10	6	7	17	11	11
Insured unemployment (average weekly volume)	11	15	16	19	18	21	17	14	15	13	13	13	10	18
Number of payments [12]	26	30	43	42	38	47	35	28	36	28	28	26	25	39
Average amount of benefit payment [13]	$91.89	$84.87	$81.50	$92.00	$96.76	$94.78	$96.02	$96.28	$89.31	$93.64	$94.12	$91.74	$90.69	$75.65
Total benefits paid [14]	$2,253	$2,439	$3,565	$3,668	$3,374	$4,091	$3,241	$2,513	$2,918	$2,478	$2,375	$2,113	$2,043	$2,804
All programs: [15]														
Insured unemployment [6]	1,696	1,778	1,885	1,916	1,987	1,957	1,464	1,105	929	902	1,015	1,088	911	970

[1] Includes data for Puerto Rico.
[2] Includes Guam and the Virgin Islands.
[3] Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transition claims under State programs.
[4] Includes interstate claims for the Virgin Islands.
[5] Number of workers reporting the completion of at least 1 week of unemployment.
[6] Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.
[7] The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.
[8] Excludes data on claims and payments made jointly with other programs.
[9] Includes the Virgin Islands.
[10] Excludes data on claims and payments made jointly with State programs.
[11] An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.
[12] Payments are for unemployment in 14-day registration periods.
[13] The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.
[14] Adjusted for recovery of overpayments and settlement of underpayments.
[15] Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act. Includes claims filed under Extended Duration (ED) provisions of regular State laws.

SOURCE: U.S. Department of Labor, Office of Manpower Management Data Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board. Data for latest month are subject to revision.

11. Employees on nonagricultural payrolls, by industry division, 1947 to date[1]

[In thousands]

Year	TOTAL	Mining	Contract construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate	Services	Government		
						Total	Wholesale trade	Retail trade			Total	Federal	State and local
1947	43,881	955	1,982	15,545	4,166	8,955	2,361	6,595	1,754	5,050	5,474	1,892	3,582
1948	44,891	994	2,169	15,582	4,189	9,272	2,489	6,783	1,829	5,206	5,650	1,863	3,787
1949	43,778	930	2,165	14,441	4,001	9,264	2,487	6,778	1,857	5,264	5,856	1,908	3,948
1950	45,222	901	2,333	15,241	4,034	9,386	2,518	6,868	1,919	5,382	6,026	1,928	4,098
1951	47,849	929	2,603	16,393	4,226	9,742	2,606	7,136	1,991	5,576	6,389	2,302	4,087
1952	48,825	898	2,634	16,632	4,248	10,004	2,687	7,317	2,069	5,730	6,609	2,420	4,188
1953	50,232	866	2,623	17,549	4,290	10,247	2,727	7,520	2,146	5,867	6,645	2,305	4,340
1954	49,022	791	2,612	16,314	4,084	10,235	2,739	7,496	2,234	6,002	6,751	2,188	4,563
1955	50,675	792	2,802	16,882	4,141	10,535	2,796	7,740	2,335	6,274	6,914	2,187	4,727
1956	52,408	822	2,999	17,243	4,244	10,858	2,884	7,974	2,429	6,536	7,277	2,209	5,069
1957	52,894	828	2,923	17,174	4,241	10,886	2,893	7,992	2,477	6,749	7,616	2,217	5,399
1958	51,363	751	2,778	15,945	3,976	10,750	2,848	7,902	2,519	6,806	7,839	2,191	5,648
1959[2]	53,313	732	2,960	16,675	4,011	11,127	2,946	8,182	2,594	7,130	8,083	2,233	5,850
1960	54,234	712	2,885	16,796	4,004	11,391	3,004	8,388	2,669	7,423	8,353	2,270	6,083
1961	54,042	672	2,816	16,326	3,903	11,337	2,993	8,344	2,731	7,664	8,594	2,279	6,315
1962	55,596	650	2,902	16,853	3,906	11,566	3,056	8,511	2,800	8,028	8,890	2,340	6,550
1963	56,702	635	2,963	16,995	3,903	11,778	3,104	8,675	2,877	8,325	9,225	2,358	6,868
1964	58,331	634	3,050	17,274	3,951	12,160	3,189	8,971	2,957	8,709	9,596	2,348	7,248
1965	60,815	632	3,186	18,062	4,036	12,716	3,312	9,404	3,023	9,087	10,074	2,378	7,696
1966	63,955	627	3,275	19,214	4,151	13,245	3,437	9,808	3,100	9,551	10,792	2,564	8,227
1967	65,857	613	3,208	19,447	4,261	13,606	3,525	10,081	3,225	10,099	11,398	2,719	8,679
1968	67,915	606	3,285	19,781	4,310	14,084	3,611	10,473	3,382	10,623	11,845	2,737	9,109
1969	70,274	619	3,437	20,169	4,431	14,645	3,738	10,907	3,557	11,211	12,204	2,758	9,446

[1] The industry series have been adjusted to March 1969 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to July 1970. For comparable back data, see **Employment and Earnings, United States, 1909–70** (BLS Bulletin 1312–7) to be released this fall.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for any part of the pay period which includes the 12th of the month. Therefore, persons who worked in more than one establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

[2] Data include Alaska and Hawaii beginning 1959. This inclusion has resulted in an increase of 212,000 (0.4 percent) in the nonagricultural total for the March 1959 benchmark month.

12. Employees on nonagricultural payrolls, by State

[In thousands]

State	June 1970 p	May 1970	June 1969	State	June 1970 p	May 1970	June 1969
Alabama	1,010.0	1,002.3	1,010.3	Montana	204.1	198.1	203.2
Alaska	95.8	90.1	92.6	Nebraska	487.0	482.4	478.1
Arizona	542.1	546.7	510.2	Nevada	200.3	195.9	191.9
Arkansas	537.0	532.4	539.8	New Hampshire	266.7	256.0	267.2
California	7,052.6	6,990.9	6,966.8	New Jersey	2,641.9	2,615.6	2,628.8
Colorado	733.2	723.9	716.7	New Mexico	294.2	290.3	289.8
Connecticut	1,206.5	1,199.3	1,212.8	New York	7,316.1	7,257.6	7,290.9
Delaware	214.6	211.6	211.9	North Carolina	1,749.0	1,741.2	1,739.4
District of Columbia	702.4	686.1	694.6	North Dakota	163.4	161.1	160.5
Florida	2,146.1	2,147.2	2,070.4	Ohio	3,952.8	3,907.2	3,942.4
Georgia	1,536.5	1,527.2	1,523.6	Oklahoma	767.6	761.6	762.4
Hawaii	292.3	284.2	279.3	Oregon	715.6	696.6	723.3
Idaho	208.3	203.3	200.3	Pennsylvania	4,416.5	4,375.2	4,444.7
Illinois	4,381.0	4,325.5	4,414.9	Rhode Island	338.8	332.3	347.7
Indiana	1,866.1	1,859.8	1,897.1	South Carolina	813.6	815.6	817.3
Iowa	894.1	884.2	892.0	South Dakota	179.2	175.2	175.5
Kansas	678.2	676.9	689.0	Tennessee	1,318.1	1,318.5	1,323.9
Kentucky	907.9	909.4	907.8	Texas	3,741.2	3,723.5	3,636.6
Louisiana	1,044.3	1,039.4	1,056.7	Utah	360.4	359.9	351.7
Maine	338.9	327.8	340.4	Vermont	149.9	144.8	146.6
Maryland	1,316.6	1,303.3	1,294.2	Virginia	1,466.0	1,451.5	1,450.7
Massachusetts	2,280.6	2,255.0	2,272.5	Washington	1,105.5	1,098.7	1,149.3
Michigan	3,019.4	3,023.2	3,088.1	West Virginia	517.4	511.1	520.5
Minnesota	1,315.5	1,304.5	1,322.1	Wisconsin	1,544.1	1,526.6	1,539.8
Mississippi	574.4	578.2	570.6	Wyoming	113.6	107.6	115.3
Missouri	1,652.6	1,645.5	1,671.7				

p = preliminary.

SOURCE: State agencies in cooperation with U.S. Department of Labor, Bureau of Labor Statistics. More detailed industry data are available from the State agencies. For addresses, see inside back cover of **Employment and Earnings.**

13. Employees on nonagricultural payrolls, by industry division and major manufacturing group [1]

[In thousands]

Industry division and group	1970							1969						Annual average	
	July p	June p	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL	70,486	71,378	70,780	70,758	70,460	70,029	69,933	71,760	71,354	71,333	70,964	70,758	70,481	70,274	67,915
MINING	634	634	620	616	610	608	611	623	622	623	630	638	635	619	606
CONTRACT CONSTRUCTION	3,569	3,506	3,344	3,286	3,161	3,071	3,048	3,398	3,553	3,648	3,687	3,731	3,707	3,437	3,285
MANUFACTURING	19,296	19,622	19,432	19,627	19,794	19,770	19,824	20,110	20,194	20,395	20,482	20,497	20,164	20,169	19,781
Production workers [2]	13,948	14,253	14,061	14,240	14,385	14,346	14,402	14,680	14,763	14,953	15,041	15,014	14,700	14,768	14,514
Durable goods	11,137	11,399	11,352	11,488	11,607	11,573	11,623	11,802	11,832	12,008	12,030	11,992	11,889	11,893	11,626
Production workers [2]	7,989	8,229	8,164	8,282	8,379	8,327	8,377	8,556	8,580	8,744	8,767	8,701	8,612	8,648	8,457
Ordnance and accessories	242.8	250.0	254.1	260.1	271.0	277.6	282.8	291.3	297.1	298.3	305.8	313.9	322.1	318.8	338.0
Lumber and wood products	584.1	605.9	579.2	574.5	578.6	579.2	583.8	597.0	600.1	604.4	616.7	629.3	627.5	609.2	600.1
Furniture and fixtures	441.5	452.7	451.4	462.9	468.6	470.3	475.6	482.2	485.2	488.1	486.8	488.4	476.2	483.5	471.6
Stone, clay, and glass products	643.6	649.9	638.0	639.8	635.1	632.9	632.0	650.9	661.9	664.7	669.0	674.0	670.9	656.3	635.5
Primary metal industries	1,318.5	1,329.0	1,319.4	1,329.5	1,338.1	1,346.6	1,351.4	1,367.6	1,364.7	1,364.0	1,373.9	1,375.5	1,374.3	1,358.0	1,315.5
Fabricated metal products	1,381.6	1,401.1	1,385.6	1,402.5	1,416.1	1,421.1	1,433.1	1,456.6	1,456.7	1,454.6	1,459.6	1,449.2	1,428.9	1,442.1	1,390.4
Machinery, except electrical	1,976.4	1,998.8	2,006.4	2,040.4	2,058.3	2,055.9	2,044.6	2,043.2	2,028.6	2,036.0	2,032.9	2,022.2	2,032.1	2,027.7	1,965.9
Electrical equipment	1,902.0	1,930.9	1,932.5	1,959.1	1,983.2	1,995.2	1,928.2	1,948.9	1,955.4	2,069.7	2,057.4	2,049.0	2,022.7	2,013.0	1,974.5
Transportation equipment	1,776.5	1,890.0	1,897.2	1,928.9	1,963.4	1,901.1	1,999.4	2,042.9	2,049.2	2,088.2	2,096.5	2,056.0	2,022.9	2,067.1	2,038.6
Instruments and related products	459.6	465.0	465.5	469.1	471.3	471.3	472.6	477.7	476.9	476.2	476.8	482.1	477.4	476.5	461.9
Miscellaneous manufacturing	410.7	425.6	422.4	421.3	423.0	421.4	419.0	443.7	456.4	463.4	454.9	452.0	433.7	440.2	433.4
Nondurable goods	8,159	8,223	8,080	8,139	8,178	8,197	8,201	8,308	8,362	8,387	8,452	8,505	8,275	8,277	8,155
Production workers [2]	5,959	6,024	5,897	5,958	6,006	6,019	6,025	6,124	6,183	6,209	6,274	6,313	6,088	6,120	6,056
Food and kindred products	1,828.7	1,793.4	1,736.7	1,722.2	1,735.6	1,739.9	1,744.3	1,790.7	1,831.7	1,862.0	1,928.8	1,941.9	1,832.6	1,795.9	1,781.5
Tobacco manufactures	72.1	71.4	70.8	71.4	73.8	77.4	79.9	84.0	87.1	94.5	97.6	93.0	71.9	82.0	84.6
Textile mill products	949.3	970.4	967.2	974.6	977.3	979.9	987.6	995.3	997.6	994.8	997.2	1,000.1	992.0	998.7	993.9
Apparel and other textile products	1,344.2	1,400.7	1,372.4	1,382.4	1,402.8	1,404.0	1,388.8	1,407.6	1,417.6	1,423.0	1,421.4	1,427.1	1,369.2	1,412.3	1,405.8
Paper and allied products	709.7	720.7	707.8	714.2	714.9	714.2	716.0	722.7	720.4	716.4	718.0	722.6	715.7	712.1	691.2
Printing and publishing	1,098.6	1,103.7	1,102.3	1,109.9	1,112.3	1,110.0	1,107.7	1,116.2	1,113.4	1,107.7	1,098.5	1,098.0	1,092.5	1,093.3	1,065.1
Chemicals and allied products	1,064.6	1,064.9	1,058.3	1,063.8	1,064.1	1,060.8	1,058.5	1,062.1	1,059.9	1,058.1	1,063.9	1,076.5	1,076.1	1,060.7	1,029.9
Petroleum and coal products	197.4	196.8	191.9	190.4	189.7	188.4	188.0	188.9	191.0	191.8	191.9	195.0	195.3	182.9	186.8
Rubber and plastics products, nec	569.0	566.4	543.2	580.8	585.0	588.2	593.4	599.6	601.6	600.5	599.0	599.4	588.8	593.9	561.3
Leather and leather products	325.3	334.5	329.2	329.1	331.6	334.6	336.7	341.3	341.2	338.2	336.1	351.0	341.2	345.1	355.2
TRANSPORTATION AND PUBLIC UTILITIES	4,561	4,547	4,469	4,432	4,443	4,420	4,435	4,478	4,486	4,481	4,508	4,510	4,507	4,431	4,310
WHOLESALE AND RETAIL TRADE	14,913	15,009	14,878	14,818	14,700	14,606	14,707	15,638	15,092	14,850	14,714	14,670	14,663	14,645	14,084
Wholesale trade	3,886	3,878	3,813	3,803	3,797	3,788	3,797	3,841	3,816	3,801	3,781	3,796	3,787	3,738	3,611
Retail trade	11,027	11,131	11,065	11,015	10,903	10,818	10,910	11,797	11,276	11,049	10,933	10,874	10,876	10,907	10,473
FINANCE, INSURANCE, AND REAL ESTATE	3,738	3,701	3,670	3,658	3,639	3,615	3,604	3,608	3,597	3,589	3,595	3,641	3,628	3,557	3,382
SERVICES	11,668	11,700	11,641	11,564	11,433	11,357	11,254	11,351	11,349	11,372	11,300	11,372	11,384	11,211	10,623
Hotels and other lodging places	.....	788.3	759.6	745.3	727.3	717.5	709.6	713.3	714.5	738.4	764.8	852.3	856.5	750.3	722.2
Personal services	.....	1,012.6	1,009.8	1,006.2	1,006.2	1,003.0	1,005.1	1,022.0	1,025.4	1,028.0	1,022.1	1,023.8	1,036.9	1,025.8	1,031.4
Medical and other health services	.....	3,088.9	3,043.2	3,033.9	3,019.4	3,000.7	2,979.8	2,961.4	2,950.0	2,927.8	2,907.8	2,905.1	2,903.3	2,868.8	2,638.6
Educational services	.....	1,105.7	1,190.7	1,197.8	1,197.8	1,196.1	1,163.6	1,179.9	1,184.5	1,164.3	1,061.6	958.4	974.7	1,116.9	1,067.3
GOVERNMENT	12,107	12,659	12,72	12,757	12,680	12,582	12,450	12,554	12,461	12,375	12,048	11,699	11,793	12,204	11,845
Federal	2,707	2,710	2,765	2,838	2,758	2,694	2,690	2,760	2,705	2,717	2,733	2,804	2,842	2,758	2,737
State and Local	9,400	9,949	9,961	9,919	9,922	9,888	9,760	9,794	9,756	9,658	9,315	8,895	8,951	9,446	9,109

[1] For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

[2] Production workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, and watchman services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations.

p = preliminary.

14. Employees on nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted [1]

[In thousands]

Industry division and group	1970							1969					
	July [p]	June [p]	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July
TOTAL	70,455	70,598	70,852	71,163	71,256	71,135	70,992	70,842	70,808	70,836	70,567	70,497	70,400
MINING	617	619	620	622	626	626	625	627	624	622	623	621	618
CONTRACT CONSTRUCTION	3,311	3,326	3,351	3,426	3,481	3,466	3,394	3,496	3,473	3,445	3,436	3,420	3,439
MANUFACTURING	19,400	19,473	19,572	19,795	19,944	19,937	20,018	20,082	20,082	20,233	20,252	20,246	20,247
Production workers [2]	14,100	14,135	14,180	14,389	14,512	14,489	14,573	14,638	14,638	14,794	14,826	14,826	14,839
Durable goods	11,226	11,295	11,386	11,529	11,648	11,625	11,679	11,773	11,782	11,965	11,968	11,950	11,955
Production workers [2]	8,099	8,136	8,186	8,318	8,409	8,367	8,425	8,516	8,522	8,703	8,713	8,698	8,706
Ordnance and accessories	243	250	256	261	271	277	281	290	296	298	306	316	322
Lumber and wood products	565	584	582	585	593	598	605	606	603	601	606	607	608
Furniture and fixtures	449	452	456	468	471	472	477	478	479	483	483	484	484
Stone, clay, and glass products	628	636	638	644	651	657	653	659	659	658	657	655	655
Primary metal industries	1,303	1,303	1,309	1,323	1,337	1,349	1,360	1,380	1,384	1,386	1,381	1,367	1,358
Fabricated metal products	1,398	1,389	1,394	1,411	1,425	1,428	1,436	1,447	1,444	1,445	1,452	1,451	1,446
Machinery, except electrical	1,976	1,983	2,004	2,032	2,046	2,048	2,043	2,051	2,043	2,050	2,041	2,028	2,032
Electrical equipment	1,923	1,935	1,956	1,979	1,995	1,993	1,922	1,930	1,934	2,051	2,049	2,043	2,045
Transportation equipment	1,863	1,877	1,897	1,925	1,950	1,890	1,988	2,009	2,028	2,078	2,078	2,081	2,086
Instruments and related products	460	463	468	471	472	472	474	476	476	476	477	479	478
Miscellaneous manufacturing	418	423	426	430	437	441	440	447	436	439	438	439	441
Nondurable goods	8,174	8,178	8,186	8,266	8,296	8,312	8,339	8,309	8,300	8,268	8,284	8,296	8,292
Production workers [2]	6,001	5,999	5,994	6,071	6,103	6,122	6,148	6,122	6,116	6,091	6,113	6,128	6,133
Food and kindred products	1,791	1,797	1,805	1,805	1,823	1,830	1,817	1,805	1,806	1,780	1,799	1,801	1,795
Tobacco manufactures	81	81	81	81	81	80	80	77	80	81	83	86	81
Textile mill products	956	958	971	979	980	987	999	995	993	991	992	992	999
Apparel and other textile products	1,390	1,385	1,375	1,394	1,396	1,398	1,416	1,410	1,405	1,406	1,409	1,410	1,416
Paper and allied products	706	711	714	721	721	720	721	720	718	716	715	714	712
Printing and publishing	1,099	1,101	1,108	1,111	1,113	1,113	1,113	1,110	1,109	1,106	1,100	1,097	1,093
Chemicals and allied products	1,053	1,056	1,060	1,063	1,066	1,067	1,068	1,067	1,064	1,062	1,064	1,064	1,064
Petroleum and coal products	191	193	192	193	194	193	193	192	191	191	189	190	189
Rubber and plastics products, nec	577	564	548	585	589	591	595	594	596	596	596	597	597
Leather and leather products	330	332	332	334	333	333	337	339	338	339	337	345	346
TRANSPORTATION AND PUBLIC UTILITIES	4,507	4,498	4,478	4,468	4,502	4,496	4,507	4,469	4,464	4,463	4,459	4,457	4,454
WHOLESALE AND RETAIL TRADE	14,922	14,941	14,968	14,991	14,984	14,987	14,938	14,750	14,848	14,824	14,739	14,713	14,673
Wholesale trade	3,840	3,854	3,859	3,853	3,847	3,834	3,828	3,807	3,782	3,775	3,762	3,751	3,742
Retail trade	11,082	11,087	11,109	11,138	11,137	11,153	11,110	10,943	11,066	11,049	10,977	10,962	10,931
FINANCE, INSURANCE, AND REAL ESTATE	3,676	3,672	3,677	3,673	3,665	3,652	3,648	3,626	3,611	3,596	3,584	3,580	3,567
SERVICES	11,484	11,516	11,572	11,564	11,537	11,530	11,472	11,431	11,383	11,361	11,289	11,248	11,205
Hotels and other lodging places	.....	749	764	768	772	770	775	770	760	761	748	730	734
Personal services	.....	997	1,005	1,006	1,015	1,018	1,016	1,016	1,021	1,025	1,026	1,026	1,030
Medical and other health services	.....	3,067	3,058	3,034	3,025	3,007	2,992	2,973	2,950	2,931	2,914	2,891	2,875
Educational services	.....	1,151	1,146	1,151	1,143	1,145	1,125	1,129	1,125	1,122	1,105	1,117	1,113
GOVERNMENT	12,538	12,553	12,614	12,624	12,517	12,441	12,390	12,361	12,323	12,292	12,185	12,212	12,197
Federal [3]	2,633	2,663	2,781	2,852	2,780	2,718	2,717	2,721	2,730	2,739	2,747	2,749	2,765
State and local	9,905	9,890	9,833	9,772	9,737	9,723	9,673	9,640	9,593	9,553	9,438	9,463	9,432

[1] For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

[2] For definition of production workers, see footnote 2, table 13.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of **Employment and Earnings.**

[p] = preliminary.

15. Labor turnover rates in manufacturing, 1959 to date [1]

[Per 100 employees]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
Total accessions													
1959	3.8	3.7	4.1	4.1	4.2	5.4	4.4	5.2	5.1	3.9	3.4	3.6	4.2
1960	4.0	3.5	3.3	3.4	3.9	4.7	3.9	4.9	4.8	3.5	2.9	2.3	3.8
1961	3.7	3.2	4.0	4.0	4.3	5.0	4.4	5.3	4.7	4.3	3.4	2.6	4.1
1962	4.1	3.6	3.8	4.0	4.3	5.0	4.6	5.1	4.9	3.9	3.0	2.4	4.1
1963	3.6	3.3	3.5	3.9	3.9	4.8	4.3	4.8	4.8	3.9	2.9	2.5	3.9
1964	3.6	3.4	3.7	3.8	3.9	5.1	4.4	5.1	4.8	4.0	3.2	2.6	4.0
1965	3.8	3.5	4.0	3.8	4.1	5.6	4.5	5.4	5.5	4.5	3.9	3.1	4.3
1966	4.6	4.2	4.9	4.6	5.1	6.7	5.1	6.4	6.1	5.1	3.9	2.9	5.0
1967	4.3	3.6	3.9	3.9	4.6	5.9	4.7	5.5	5.3	4.7	3.7	2.8	4.4
1968	4.2	3.8	4.0	4.3	4.7	5.9	5.0	5.8	5.7	5.1	3.9	3.1	4.6
1969	4.6	3.9	4.4	4.5	4.8	6.6	5.1	5.6	5.9	5.0	3.6	2.9	4.7
1970	4.0	3.6	3.7	3.7	4.2	p 5.4							
New hires													
1959	2.0	2.1	2.4	2.5	3.7	2.7	3.0	3.5	3.5	2.6	1.9	1.5	2.6
1960	2.2	2.2	2.0	2.0	2.3	3.0	2.4	2.9	2.8	2.1	1.5	1.0	2.2
1961	1.5	1.4	1.6	1.8	2.1	2.9	2.5	3.1	3.0	2.7	2.0	1.4	2.2
1962	2.2	2.1	2.2	2.4	2.8	3.5	2.9	3.2	3.1	2.5	1.8	1.2	2.5
1963	1.9	1.8	2.0	2.3	2.5	3.3	2.7	3.2	3.2	2.6	1.8	1.4	2.4
1964	2.0	2.0	2.2	2.4	2.5	3.6	2.9	3.4	3.5	2.8	2.2	1.6	2.6
1965	2.4	2.4	2.8	2.6	3.0	4.3	3.2	3.9	4.0	3.5	2.9	2.2	3.1
1966	3.2	3.1	3.7	3.6	4.1	5.6	3.9	4.8	4.7	4.2	3.1	2.1	3.8
1967	3.0	2.7	2.8	2.8	3.3	4.6	3.3	4.0	4.1	3.7	2.8	2.0	3.3
1968	3.0	2.7	2.9	3.2	3.6	4.7	3.7	4.3	4.6	4.0	2.9	2.2	3.5
1969	3.3	3.0	3.4	3.5	3.8	5.4	3.9	4.3	4.8	4.0	2.8	2.1	3.7
1970	2.9	2.5	2.6	2.6	2.8	p 4.0							
Total separations													
1959	3.7	3.1	3.3	3.6	3.5	3.6	4.0	4.6	5.3	5.5	4.7	3.9	4.1
1960	3.6	3.5	4.0	4.2	3.9	4.0	4.4	4.8	5.3	4.7	4.5	4.8	4.3
1961	4.7	3.9	3.8	3.4	3.5	3.6	4.1	4.2	5.1	4.2	4.0	4.0	4.0
1962	3.9	3.4	3.6	3.6	3.8	3.8	4.4	5.1	5.0	4.4	4.0	3.8	4.1
1963	4.0	3.2	3.5	3.6	3.6	3.4	4.1	4.8	4.9	4.1	3.9	3.7	3.9
1964	4.0	3.3	3.5	3.5	3.6	3.5	4.4	4.3	5.1	4.2	3.6	3.7	3.9
1965	3.7	3.1	3.4	3.7	3.6	3.6	4.3	5.1	5.6	4.5	3.9	4.1	4.1
1966	4.0	3.6	4.1	4.3	4.3	4.4	5.3	5.8	6.6	4.8	4.3	4.2	4.6
1967	4.5	4.0	4.6	4.3	4.2	4.3	4.8	5.3	6.2	4.7	4.0	3.9	4.6
1968	4.4	3.9	4.1	4.1	4.3	4.1	5.0	6.0	6.3	5.0	4.1	3.8	4.6
1969	4.5	4.0	4.4	4.5	4.6	4.6	5.3	6.2	6.6	5.3	4.3	4.2	4.9
1970	4.8	4.3	4.5	4.8	4.6	p 4.4							
Quits													
1959	1.1	1.0	1.2	1.4	1.5	1.5	1.6	2.1	2.6	1.7	1.2	1.0	1.5
1960	1.2	1.2	1.2	1.4	1.3	1.4	1.4	1.8	2.3	1.3	.9	.7	1.3
1961	.9	.8	.9	1.0	1.1	1.2	1.2	1.7	2.3	1.4	1.1	.9	1.2
1962	1.1	1.1	1.2	1.3	1.5	1.5	1.4	2.1	2.4	1.5	1.1	.8	1.4
1963	1.1	1.0	1.2	1.3	1.4	1.4	1.4	2.1	2.4	1.5	1.1	.8	1.4
1964	1.2	1.1	1.2	1.3	1.5	1.4	1.5	2.1	2.7	1.7	1.2	1.0	1.5
1965	1.4	1.3	1.5	1.7	1.7	1.7	1.8	2.6	3.5	2.2	1.7	1.4	1.9
1966	1.9	1.8	2.3	2.5	2.5	2.5	2.5	3.6	4.5	2.8	2.1	1.7	2.6
1967	2.1	1.9	2.1	2.2	2.2	2.3	2.1	3.2	4.0	2.5	1.9	1.5	2.3
1968	2.0	1.9	2.1	2.2	2.4	2.3	2.4	3.8	4.2	2.8	2.1	1.6	2.5
1969	2.3	2.1	2.4	2.6	2.7	2.6	2.6	4.0	4.4	2.9	2.1	1.6	2.7
1970	2.1	1.9	1.9	2.1	2.1	p 2.1							
Layoffs													
1959	2.1	1.5	1.6	1.6	1.4	1.4	1.8	1.8	2.0	3.2	2.9	2.4	2.0
1960	1.8	1.7	2.2	2.2	1.9	2.0	2.4	2.4	2.4	2.8	3.1	3.6	2.4
1961	3.2	2.6	2.3	1.9	1.8	1.8	2.3	1.8	2.1	2.0	2.2	2.6	2.2
1962	2.1	1.7	1.6	1.6	1.6	1.6	2.2	2.2	1.9	2.2	2.3	2.5	2.0
1963	2.2	1.6	1.7	1.6	1.5	1.4	2.0	1.9	1.8	1.9	2.1	2.3	1.8
1964	2.0	1.6	1.6	1.4	1.4	1.3	2.1	1.4	1.5	1.8	1.7	2.1	1.7
1965	1.6	1.2	1.2	1.3	1.1	1.1	1.8	1.6	1.3	1.4	1.5	1.9	1.4
1966	1.3	1.0	1.0	1.0	.9	1.0	2.0	1.1	1.0	1.1	1.3	1.7	1.2
1967	1.5	1.3	1.5	1.3	1.1	1.1	1.9	1.2	1.2	1.3	1.3	1.6	1.4
1968	1.5	1.2	1.1	1.0	1.0	.9	1.8	1.3	1.1	1.2	1.2	1.4	1.2
1969	1.2	1.0	1.0	.9	.9	1.0	1.6	1.1	1.1	1.3	1.3	1.8	1.2
1970	1.7	1.6	1.6	1.7	1.5	p 1.3							

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons: (1) The labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

p=preliminary.

16. Labor turnover rates in manufacturing, by major industry group [1]

[Per 100 employees]

Major industry group	Accession rates						Separation rates								
	Total			New hires			Total			Quits			Layoffs		
	June 1970p	May 1970	June 1969	June 1970p	May 1970	June 1969	June 1970p	May 1970	June 1969	June 1970p	May 1970	June 1969	June 1970p	May 1970	June 1969
MANUFACTURING	5.4	4.2	6.6	4.0	2.8	5.4	4.4	4.6	4.6	2.1	2.1	2.6	1.3	1.5	1.0
Seasonally adjusted [2]	4.0	4.2	4.9	2.8	2.7	3.8	4.8	5.0	5.0	2.2	2.1	2.8	1.6	1.9	1.2
Durable goods	4.9	3.7	6.2	3.5	2.4	5.1	4.3	4.4	4.4	1.9	1.8	2.4	1.4	1.7	.9
Ordnance and accessories	----	1.9	3.9	----	1.0	3.2	----	4.1	3.5	----	1.1	1.8	----	2.4	1.0
Lumber and wood products	7.6	6.8	9.0	6.2	5.0	8.1	5.4	5.2	6.5	3.3	3.4	4.7	1.3	.9	.8
Furniture and fixtures	5.3	4.7	7.6	4.1	3.5	7.0	4.8	6.0	5.7	2.7	3.4	4.0	1.1	1.5	.5
Stone, clay, and glass products	6.4	5.0	7.9	5.0	3.7	6.8	4.7	4.6	4.6	2.5	2.4	3.0	1.3	1.2	.5
Primary metal industries	5.2	3.6	6.3	3.9	2.2	5.4	3.3	3.7	3.5	1.5	1.4	1.9	.7	1.2	.5
Fabricated metal products	----	4.7	7.4	----	3.1	6.2	----	4.8	5.4	----	2.2	3.0	----	1.5	1.3
Machinery, except electrical	3.6	2.6	5.2	2.6	1.7	4.3	3.5	4.1	3.4	1.4	1.4	1.8	1.2	1.8	.6
Electrical equipment	4.2	3.1	5.7	2.9	1.9	4.6	4.5	4.0	3.7	1.8	1.7	2.2	1.7	1.4	.5
Transportation equipment	----	3.5	5.5	----	1.6	3.8	----	4.8	4.8	----	1.3	1.9	----	2.7	1.8
Instruments and related products	4.0	2.6	4.8	2.9	1.8	4.2	4.1	3.3	3.3	1.9	1.4	1.9	1.1	1.1	.5
Miscellaneous manufacturing	7.1	5.4	7.8	5.3	4.0	6.6	5.8	6.0	5.8	2.9	2.9	3.5	1.8	2.1	1.3
Nondurable goods	6.1	4.8	7.1	4.6	3.4	5.7	4.5	4.8	4.8	2.5	2.6	2.9	1.2	1.3	1.0
Food and kindred products	9.2	6.9	10.3	6.9	5.0	8.2	5.9	6.2	6.4	3.1	3.1	3.5	2.1	2.2	2.0
Tobacco manufactures	4.7	3.7	4.9	2.8	2.6	3.3	2.2	3.6	3.5	1.3	2.0	1.8	.3	.8	.9
Textile mill products	5.5	4.9	6.6	4.3	3.8	5.6	5.0	5.3	5.3	3.2	3.6	3.8	.7	.7	.4
Apparel and other textile products	6.4	5.9	6.2	4.3	3.6	4.4	5.5	6.0	5.6	2.9	3.0	3.0	1.8	2.2	1.7
Paper and allied products	5.1	3.4	6.9	3.9	2.6	6.0	3.2	3.5	4.0	1.7	1.9	2.5	.6	.8	.4
Printing and publishing	4.2	3.0	5.5	3.4	2.4	4.8	3.2	3.4	3.5	2.0	2.0	2.4	.6	.7	.4
Chemicals and allied products	3.7	2.4	4.9	3.2	1.8	4.2	2.5	2.5	2.9	1.2	1.2	1.5	.6	.6	.6
Petroleum and coal products	4.4	2.9	5.3	4.0	2.5	4.6	2.5	2.4	2.2	1.1	1.0	1.3	.8	.7	.3
Rubber and plastics products, n.e.c.	6.4	4.9	7.7	5.0	3.5	6.6	5.3	5.1	5.3	2.8	2.8	3.4	1.1	1.2	.7
Leather and leather products	6.6	5.9	7.0	4.9	4.3	5.7	5.2	5.9	5.8	3.1	3.4	3.9	1.0	1.5	.9

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For relationship to employment series see footnote 1, table 15.

[2] These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of **Employment and Earnings.**

NOTE: For additional detail see **Employment and Earnings**, table D–2.

p=preliminary.

17. Gross hours and earnings of production and nonsupervisory workers [1] on private nonagricultural payrolls by industry division, 1947 to date

Year	Averages			Averages			Averages			Averages		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
	Total private			Mining			Contract construction			Manufacturing		
1947	$45.58	40.3	$1.131	$59.94	40.8	$1.469	$58.87	38.2	$1.541	$49.17	40.4	$1.217
1948	49.00	40.0	1.225	65.56	39.4	1.664	65.27	38.1	1.713	53.12	40.0	1.328
1949	50.24	39.4	1.275	62.33	36.3	1.717	67.56	37.7	1.792	53.88	39.1	1.378
1950	53.13	39.8	1.335	67.16	37.9	1.772	69.68	37.4	1.863	58.32	40.5	1.440
1951	57.86	39.9	1.45	74.11	38.4	1.93	76.96	38.1	2.02	63.34	40.6	1.56
1952	60.65	39.9	1.52	77.59	38.6	2.01	82.86	38.9	2.13	67.16	40.7	1.65
1953	63.76	39.6	1.61	83.03	38.8	2.14	86.41	37.9	2.28	70.47	40.5	1.74
1954	64.52	39.1	1.65	82.60	38.6	2.14	88.91	37.2	2.39	70.49	39.6	1.78
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.70	40.7	1.86
1956	70.74	39.3	1.80	95.06	40.8	2.33	96.38	37.5	2.57	78.78	40.4	1.95
1957	73.33	38.8	1.89	98.65	40.1	2.46	100.27	37.0	2.71	81.59	39.8	2.05
1958	75.08	38.5	1.95	96.08	38.9	2.47	103.78	36.8	2.82	82.71	39.2	2.11
1959 [2]	78.78	39.0	2.02	103.68	40.5	2.56	108.41	37.0	2.93	88.26	40.3	2.19
1960	80.67	38.6	2.09	105.44	40.4	2.61	113.04	36.7	3.08	89.72	39.7	2.26
1961	82.60	38.6	2.14	106.92	40.5	2.64	118.08	36.9	3.20	92.34	39.8	2.32
1962	85.91	38.7	2.22	110.43	40.9	2.70	122.47	37.0	3.31	96.56	40.4	2.39
1963	88.46	38.8	2.28	114.40	41.6	2.75	127.19	37.3	3.41	99.63	40.5	2.46
1964	91.33	38.7	2.36	117.74	41.9	2.81	132.06	37.2	3.55	102.97	40.7	2.53
1965	95.06	38.8	2.45	123.52	42.3	2.92	138.38	37.4	3.70	107.53	41.2	2.61
1966	98.82	38.6	2.56	130.24	42.7	3.05	146.26	37.6	3.89	112.34	41.3	2.72
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.90	40.6	2.83
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.93	37.4	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.16	37.9	4.78	129.51	40.6	3.19
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1947				$38.07	40.5	$0.940	$43.21	37.9	$1.140			
1948				40.80	40.4	1.010	45.48	37.9	1.200			
1949				42.93	40.5	1.060	47.63	37.8	1.260			
1950				44.55	40.5	1.100	50.52	37.7	1.340			
1951				47.79	40.5	1.18	54.67	37.7	1.45			
1952				49.20	40.0	1.23	57.08	37.8	1.51			
1953				51.35	39.5	1.30	59.57	37.7	1.58			
1954				53.33	39.5	1.35	62.04	37.6	1.65			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1956				57.48	39.1	1.47	65.68	36.9	1.78			
1957				59.60	38.7	1.54	67.53	36.7	1.84			
1958				61.76	38.6	1.60	70.12	37.1	1.89			
1959 [2]				64.41	38.8	1.66	72.74	37.3	1.95			
1960				66.01	38.6	1.71	75.14	37.2	2.02			
1961				67.41	38.3	1.76	77.12	36.9	2.09			
1962				69.91	38.2	1.83	80.94	37.3	2.17			
1963				72.01	38.1	1.89	84.38	37.5	2.25			
1964	$118.37	41.1	$2.88	74.28	37.9	1.96	85.79	37.3	2.30	$69.84	36.0	$1.94
1965	125.14	41.3	3.03	76.53	37.7	2.03	88.91	37.2	2.39	73.60	35.9	2.05
1966	128.13	41.2	3.11	79.02	37.1	2.13	92.13	37.3	2.47	77.04	35.5	2.17
1967	131.22	40.5	3.24	81.76	36.5	2.24	95.46	37.0	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	86.40	36.0	2.40	101.75	37.0	2.75	84.32	34.7	2.43
1969	147.74	40.7	3.63	91.14	35.6	2.56	108.33	37.1	2.92	91.26	34.7	2.63

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Data relate to production workers in mining and manufacturing: to construction workers in contract construction: and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

[2] Data include Alaska and Hawaii beginning 1959.

NOTE: For additional detail see **Employment and Earnings**, table C–1.

18. Gross average weekly hours of production or nonsupervisory workers [1] on private nonagricultural payrolls, by industry division and major manufacturing group

Industry division and group	1970							1969						Annual average	
	July 1970p	June 1970p	May 1970	Apr. 1970	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL PRIVATE	37.6	37.4	37.0	36.9	37.2	37.0	37.1	37.7	37.5	37.6	37.9	38.1	38.0	37.7	37.8
MINING	42.8	42.8	42.7	43.1	42.4	42.6	42.3	43.3	43.3	43.3	43.4	43.6	43.0	43.0	42.6
CONTRACT CONSTRUCTION	38.7	38.5	38.1	37.9	37.2	36.8	35.7	37.6	37.1	38.3	39.3	39.1	38.7	37.9	37.4
MANUFACTURING	39.7	40.0	39.8	39.7	40.0	39.8	40.1	41.0	40.6	40.7	41.0	40.6	40.4	40.6	40.7
Overtime hours	2.9	3.1	2.9	2.8	3.0	3.0	3.2	3.6	3.6	3.7	4.0	3.7	3.5	3.6	3.6
Durable Goods	40.1	40.7	40.3	40.2	40.6	40.3	40.7	41.7	41.2	41.4	41.7	41.1	40.9	41.3	41.4
Overtime hours	2.8	3.2	2.9	2.8	3.1	3.0	3.3	3.8	3.7	3.9	4.2	3.8	3.6	3.8	3.8
Ordnance and accessories	40.0	40.7	40.8	40.8	40.8	40.8	41.0	41.0	40.6	40.3	40.6	40.2	39.8	40.4	41.5
Lumber and wood products	39.3	39.9	40.1	39.8	39.5	39.4	39.1	40.1	39.9	40.3	40.3	40.2	39.7	40.2	40.6
Furniture and fixtures	37.9	39.0	38.5	38.7	39.1	38.7	38.9	40.8	40.3	40.6	40.7	40.8	39.7	40.4	40.6
Stone, clay, and glass products	41.6	41.6	41.5	41.5	41.3	40.9	40.9	42.9	41.9	42.1	42.4	42.4	41.8	42.0	41.8
Primary metal industries	40.3	40.7	40.4	40.4	40.8	40.8	41.3	41.7	41.4	41.7	42.1	41.8	41.6	41.8	41.6
Fabricated metal products	40.6	41.1	40.7	40.6	40.9	40.6	41.0	41.8	41.6	41.7	42.1	41.7	41.2	41.6	41.7
Machinery, except electrical	40.7	41.2	41.1	41.4	42.1	41.9	42.2	43.1	42.2	42.4	42.7	42.9	41.8	42.5	42.1
Electrical equipment and supplies	39.1	39.8	39.6	39.6	40.1	39.7	40.3	40.9	40.5	40.4	40.7	40.3	39.8	40.4	40.3
Transportation equipment	40.5	41.6	40.4	39.2	40.0	39.6	40.1	42.2	41.5	41.9	42.3	40.5	41.6	41.5	42.2
Instruments and related products	39.5	40.0	40.0	40.3	40.7	40.2	40.5	41.3	41.1	40.9	41.2	40.7	40.5	40.7	40.5
Miscellaneous manufacturing industries	38.2	38.7	38.6	38.8	39.0	38.8	38.8	39.5	39.3	39.3	39.2	39.1	38.5	39.0	39.4
Nondurable goods	39.2	39.2	39.0	39.0	39.2	39.1	39.2	40.0	39.8	39.7	40.0	39.9	39.8	39.7	39.8
Overtime hours	2.9	3.0	2.9	2.8	3.0	3.0	3.1	3.4	3.4	3.5	3.7	3.5	3.4	3.4	3.3
Food and kindred products	40.7	40.5	40.5	39.9	40.0	40.0	40.5	41.0	41.0	40.7	41.8	41.4	41.2	40.8	40.8
Tobacco manufactures	37.7	38.1	36.8	37.1	36.4	36.9	37.2	36.8	37.3	38.6	39.0	37.5	37.6	37.4	37.9
Textile mill products	40.0	40.2	39.7	39.9	40.1	40.0	40.0	41.3	41.1	40.9	41.0	41.0	40.7	40.8	41.2
Apparel and other textile products	35.5	35.4	35.1	35.4	35.8	35.5	35.2	35.9	35.8	35.8	35.8	36.3	35.9	35.9	36.1
Paper and allied products	41.7	41.8	41.8	41.7	42.0	41.9	42.4	43.2	42.9	43.1	43.3	43.1	43.0	43.0	42.9
Printing and publishing	37.7	37.7	37.6	37.7	38.0	37.8	37.7	39.0	38.4	38.4	38.6	38.6	38.4	38.4	38.3
Chemicals and allied products	41.3	41.4	41.6	41.6	41.8	41.6	41.7	42.9	42.0	41.7	41.8	41.7	41.7	41.8	41.8
Petroleum and coal products	43.5	42.8	42.8	42.2	41.8	41.8	41.9	41.7	42.7	42.9	42.6	42.9	43.6	42.6	42.5
Rubber and plastics products, nec	40.3	40.2	39.9	40.3	40.4	40.6	40.7	41.5	41.1	41.3	41.5	41.0	40.8	41.1	41.5
Leather and leather products	37.6	37.9	37.5	36.3	37.1	37.4	37.7	38.3	37.4	37.0	36.8	37.1	37.4	37.2	38.3
TRANSPORTATION AND PUBLIC UTILITIES	41.0	40.7	40.4	39.8	40.2	40.5	40.5	40.8	40.9	41.0	41.0	40.8	41.1	40.7	40.6
WHOLESALE AND RETAIL TRADE	36.3	35.6	35.0	34.9	35.0	35.0	35.1	35.7	35.2	35.3	35.7	36.6	36.5	35.6	36.0
Wholesale trade	40.3	40.1	39.9	39.9	40.0	40.0	40.2	40.7	40.2	40.3	40.3	40.5	40.3	40.2	40.1
Retail trade	35.0	34.2	33.5	33.3	33.4	33.3	33.4	34.1	33.6	33.7	34.2	35.3	35.2	34.2	34.7
FINANCE, INSURANCE, AND REAL ESTATE	36.9	36.7	36.7	36.9	37.0	37.0	36.9	37.0	37.2	37.1	37.0	37.0	37.1	37.1	37.0
SERVICES	34.9	34.5	34.3	34.3	34.7	34.3	34.3	34.6	34.6	34.5	34.6	35.3	35.3	34.7	34.7

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see **Employment and Earnings**, table C-2.

p=preliminary.

19. Gross average weekly hours of production or nonsupervisory workers [1] on private nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted

Industry division and group	1970						1969						
	July[p]	June[p]	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July
TOTAL PRIVATE	37.3	37.2	37.1	37.2	37.4	37.3	37.5	37.6	37.6	37.5	37.7	37.7	37.7
MINING	42.4	42.3	42.6	43.1	43.2	43.4	42.7	43.2	43.5	43.0	43.1	43.1	42.6
CONTRACT CONSTRUCTION	37.6	37.7	38.1	38.3	38.0	38.2	36.7	38.2	38.1	37.6	38.1	37.9	37.6
MANUFACTURING	39.9	39.8	39.8	40.0	40.2	39.9	40.3	40.7	40.5	40.5	40.7	40.6	40.6
Overtime hours	3.0	3.1	2.9	3.0	3.2	3.2	3.3	3.5	3.5	3.5	3.6	3.6	3.6
Durable Goods	40.5	40.5	40.3	40.4	40.7	40.5	41.0	41.3	41.1	41.2	41.4	41.2	41.3
Overtime hours	3.0	3.2	3.0	3.0	3.2	3.2	3.4	3.6	3.5	3.6	3.8	3.8	3.8
Ordnance and accessories	40.5	40.6	40.8	41.1	41.1	41.3	40.6	40.5	40.3	40.2	40.3	40.4	40.3
Lumber and wood products	39.4	39.4	39.7	39.8	39.5	40.1	39.6	40.3	40.2	39.9	40.0	39.9	39.8
Furniture and fixtures	38.4	38.8	38.8	39.3	39.4	39.3	39.5	40.0	40.0	39.9	40.1	40.3	40.2
Stone, clay, and glass products	41.5	41.2	41.3	41.6	41.8	41.7	41.7	42.1	41.8	41.7	41.9	41.9	41.7
Primary metal industries	40.4	40.4	40.2	40.1	40.7	40.9	41.2	41.7	41.6	42.1	42.1	41.9	41.7
Fabricated metal products	41.0	40.9	40.6	40.9	41.2	41.1	41.4	41.5	41.4	41.4	41.5	41.6	41.6
Machinery, except electrical	41.2	41.1	41.1	41.4	41.8	41.9	42.2	42.6	42.2	42.4	42.6	42.5	42.4
Electrical equipment and supplies	39.7	39.7	39.7	40.0	40.2	39.7	40.5	40.3	40.1	40.2	40.4	40.4	40.4
Transportation equipment	41.0	41.6	40.3	39.7	40.4	40.3	40.2	41.4	40.7	41.2	41.6	41.2	42.1
Instruments and related products	39.9	39.9	40.1	40.5	40.7	40.2	40.7	40.9	40.9	40.7	41.0	40.9	40.9
Miscellaneous manufacturing industries	38.9	38.6	38.7	39.0	39.0	38.6	39.3	39.3	39.3	38.9	39.0	39.1	39.2
Nondurable Goods	39.2	39.0	39.1	39.4	39.4	39.3	39.6	39.8	39.6	39.6	39.7	39.7	39.8
Overtime hours	2.9	3.0	3.0	3.0	3.2	3.2	3.4	3.3	3.3	3.3	3.3	3.4	3.4
Food and kindred products	40.2	40.3	40.7	40.6	40.5	40.7	41.0	40.8	40.8	40.6	40.9	40.9	40.7
Tobacco manufactures	38.1	37.5	37.1	38.3	37.5	37.3	38.3	36.2	37.2	37.3	37.4	37.2	38.0
Textile mill products	40.4	39.9	39.8	40.6	40.2	40.1	40.4	40.9	40.7	40.6	40.7	40.9	41.1
Apparel and other textile products	35.6	35.2	35.1	35.5	35.6	35.5	35.6	36.0	35.8	35.8	35.8	35.9	36.0
Paper and allied products	41.7	41.7	41.8	42.1	42.2	42.3	42.8	42.8	42.7	42.8	42.9	42.9	43.0
Printing and publishing	37.8	37.7	37.7	37.9	38.0	38.0	38.2	38.6	38.4	38.2	38.3	38.4	38.5
Chemicals and allied products	41.4	41.4	41.5	41.4	41.8	41.8	42.0	41.8	41.8	41.7	41.8	41.8	41.8
Petroleum and coal products	42.7	42.6	42.5	41.9	42.2	42.7	42.5	42.3	42.6	42.6	42.2	42.8	42.8
Rubber and plastics products, nec	40.7	40.2	40.0	40.7	40.7	41.0	40.9	41.1	40.8	40.9	41.0	40.9	41.2
Leather and leather products	37.3	37.5	37.7	37.4	37.4	37.1	37.5	37.7	37.3	37.2	37.1	36.9	37.1
TRANSPORTATION AND PUBLIC UTILITIES	40.6	40.6	40.6	40.2	40.6	40.7	40.7	40.8	40.7	40.9	40.8	40.5	40.7
WHOLESALE AND RETAIL TRADE	35.5	35.4	35.4	35.3	35.3	35.4	35.4	35.5	35.5	35.5	35.6	35.7	35.7
Wholesale Trade	40.0	40.0	40.1	40.1	40.1	40.2	40.3	40.5	40.3	40.3	40.3	40.3	40.0
Retail trade	34.0	33.9	33.9	33.7	33.8	33.7	33.8	33.8	34.0	34.0	34.1	34.2	34.2
FINANCE, INSURANCE, AND REAL ESTATE	36.9	36.7	36.8	36.9	37.0	37.0	36.9	36.9	37.2	37.0	37.1	37.0	37.1
SERVICES	34.6	34.4	34.5	34.4	34.7	34.4	34.4	34.6	34.7	34.6	34.7	35.0	35.0

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.
p=preliminary.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail see June 1970 issue of **Employment and Earnings.**

20. Gross average hourly earnings of production or nonsupervisory workers [1] on private nonagricultural payrolls, by industry division and major manufacturing group

Industry and division group	1970							1969						Annual average	
	July p	June p	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL PRIVATE	$3.22	$3.21	$3.20	$3.18	$3.17	$3.15	$3.13	$3.12	$3.13	$3.12	$3.11	$3.06	$3.05	$3.04	$2.85
MINING	3.80	3.82	3.80	3.79	3.78	3.77	3.76	3.71	3.72	3.69	3.65	3.60	3.59	3.60	3.35
CONTRACT CONSTRUCTION	5.17	5.11	5.10	5.09	5.06	5.06	5.07	5.03	4.97	4.96	4.92	4.80	4.76	4.78	4.41
MANUFACTURING	3.36	3.36	3.34	3.32	3.31	3.29	3.29	3.29	3.26	3.25	3.24	3.20	3.19	3.19	3.01
Durable Goods	3.56	3.57	3.55	3.52	3.51	3.48	3.49	3.49	3.46	3.45	3.44	3.39	3.38	3.39	3.19
Ordnance and accessories	3.62	3.58	3.59	3.58	3.57	3.54	3.53	3.51	3.53	3.48	3.46	3.43	3.41	3.42	3.26
Lumber and wood products	2.92	2.98	2.92	2.88	2.86	2.84	2.83	2.84	2.86	2.83	2.84	2.79	2.75	2.74	2.57
Furniture and fixtures	2.76	2.76	2.75	2.73	2.71	2.70	2.71	2.71	2.70	2.68	2.68	2.64	2.62	2.62	2.47
Stone, clay, and glass products	3.41	3.40	3.38	3.35	3.32	3.28	3.28	3.28	3.29	3.27	3.25	3.22	3.19	3.19	2.99
Primary metal industries	3.90	3.92	3.90	3.87	3.86	3.85	3.86	3.87	3.85	3.85	3.87	3.84	3.79	3.79	3.55
Fabricated metal products	3.54	3.54	3.52	3.50	3.48	3.46	3.45	3.44	3.41	3.39	3.40	3.34	3.33	3.34	3.16
Machinery, except electrical	3.76	3.76	3.77	3.75	3.75	3.72	3.70	3.72	3.67	3.67	3.63	3.57	3.56	3.58	3.36
Electrical equipment and supplies	3.33	3.30	3.27	3.24	3.24	3.20	3.18	3.17	3.13	3.13	3.13	3.10	3.09	3.09	2.93
Transportation equipment	4.07	4.11	4.06	4.00	4.01	3.97	4.02	4.04	3.98	3.95	3.94	3.92	3.90	3.90	3.69
Instruments and related products	3.34	3.31	3.30	3.29	3.28	3.27	3.26	3.25	3.23	3.21	3.19	3.15	3.13	3.15	2.98
Miscellaneous manufacturing industries	2.80	2.82	2.81	2.80	2.80	2.80	2.79	2.76	2.72	2.69	2.68	2.64	2.64	2.66	2.50
Nondurable Goods	3.09	3.06	3.05	3.04	3.03	3.01	3.01	2.99	2.97	2.96	2.95	2.92	2.92	2.91	2.74
Food and kindred products	3.17	3.15	3.16	3.12	3.10	3.08	3.08	3.04	3.01	2.98	2.97	2.94	2.97	2.96	2.80
Tobacco manufactures	3.01	3.02	2.99	2.98	2.90	2.89	2.86	2.67	2.62	2.49	2.51	2.49	2.77	2.62	2.48
Textile mill products	2.43	2.44	2.43	2.42	2.42	2.42	2.42	2.42	2.42	2.41	2.41	2.38	2.35	2.34	2.21
Apparel and other textile products	2.38	2.38	2.36	2.37	2.37	2.36	2.36	2.35	2.34	2.34	2.34	2.31	2.28	2.31	2.21
Paper and allied products	3.46	3.42	3.40	3.37	3.35	3.35	3.35	3.34	3.32	3.31	3.31	3.28	3.27	3.24	3.05
Printing and publishing	3.90	3.90	3.88	3.85	3.84	3.81	3.80	3.81	3.78	3.77	3.75	3.70	3.68	3.69	3.48
Chemicals and allied products	3.73	3.68	3.64	3.61	3.60	3.60	3.60	3.58	3.56	3.55	3.52	3.50	3.49	3.47	3.26
Petroleum and coal products	4.28	4.22	4.25	4.26	4.23	4.23	4.21	4.10	4.10	4.06	4.04	3.99	4.03	4.00	3.75
Rubber and plastics products, nec	3.20	3.13	3.09	3.16	3.15	3.14	3.15	3.14	3.13	3.12	3.13	3.08	3.09	3.07	2.92
Leather and leather products	2.48	2.49	2.49	2.48	2.47	2.47	2.46	2.44	2.42	2.40	2.38	2.35	2.34	2.36	2.23
TRANSPORTATION AND PUBLIC UTILITIES	3.85	3.83	3.79	3.75	3.75	3.75	3.73	3.72	3.72	3.70	3.71	3.67	3.65	3.63	3.42
WHOLESALE AND RETAIL TRADE	2.70	2.70	2.70	2.69	2.68	2.68	2.65	2.61	2.63	2.61	2.59	2.56	2.55	2.56	2.40
Wholesale trade	3.41	3.40	3.41	3.40	3.40	3.38	3.35	3.34	3.33	3.29	3.28	3.24	3.23	3.23	3.05
Retail trade	2.44	2.43	2.43	2.41	2.41	2.40	2.38	2.35	2.36	2.35	2.33	2.30	2.30	2.30	2.16
FINANCE, INSURANCE, AND REAL ESTATE	3.05	3.04	3.04	3.03	3.05	3.04	3.02	2.98	2.99	2.95	2.93	2.92	2.91	2.92	2.75
SERVICES	2.81	2.81	2.80	2.79	2.79	2.77	2.74	2.72	2.72	2.69	2.67	2.62	2.63	2.63	2.43

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail see **Employment and Earnings**, table C-2.

p=preliminary.

21. Gross average weekly earnings of production or nonsupervisory workers [1] on private nonagricultural payrolls, by industry division and major manufacturing group

Industry division and group	1970							1969						Annual average	
	July p	June p	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969	1968
TOTAL PRIVATE	$121.07	$120.05	$118.40	$117.34	$117.92	$116.55	$116.12	$117.62	$117.38	$117.31	$117.87	$116.59	$115.90	$114.61	$107.73
MINING	162.64	163.50	,162.26	163.35	160.27	160.60	159.05	160.64	161.08	159.78	158.41	156.96	154.37	154.80	142.71
CONTRACT CONSTRUCTION	200.08	196.74	194.31	192.91	188.23	186.21	181.00	189.13	184.39	189.97	193.36	187.68	184.21	181.16	164.93
MANUFACTURING	133.39	134.40	132.93	131.80	132.40	130.94	131.93	134.89	132.36	132.28	132.84	129.92	128.88	129.51	122.51
Durable goods	142.76	145.30	143.07	141.50	142.51	140.24	142.04	145.53	142.55	142.83	143.45	139.33	138.24	140.01	132.07
Ordnance and accessories	144.80	145.71	146.47	146.06	145.66	144.43	144.73	143.91	143.32	140.24	140.48	137.89	135.72	138.17	135.29
Lumber and wood products	114.76	118.90	117.09	114.62	112.97	111.90	110.65	113.88	114.11	114.05	114.45	112.16	109.18	110.15	104.34
Furniture and fixtures	104.60	107.64	105.88	105.65	105.96	104.49	105.42	110.57	108.81	108.81	109.08	107.71	104.01	105.85	100.28
Stone, clay, and glass products	141.86	141.44	140.27	139.03	137.12	134.15	134.15	137.76	137.85	137.67	137.80	136.53	133.34	133.98	124.98
Primary metal industries	157.17	159.54	157.56	156.35	157.49	157.08	159.42	161.38	159.39	160.55	162.93	160.51	157.66	158.42	147.68
Fabricated metal products	143.72	145.49	143.26	142.10	142.33	140.48	141.45	143.79	141.86	141.36	143.14	139.28	137.20	138.94	131.77
Machinery, except electrical	153.03	154.91	154.95	155.25	157.88	155.87	156.14	160.33	154.87	155.61	155.00	149.94	148.81	152.15	141.46
Electrical equipment and supplies	130.20	131.34	129.49	128.30	129.92	127.04	128.15	129.65	126.77	126.45	127.39	124.93	122.98	124.84	118.08
Transportation equipment	164.84	170.98	164.02	156.80	160.40	157.21	161.20	170.49	165.17	165.51	166.66	158.76	162.24	161.85	155.72
Instruments and related products	131.93	132.40	132.00	132.59	133.50	131.45	132.03	134.23	132.75	131.29	131.43	128.21	126.77	128.21	120.69
Miscellaneous manufacturing industries	106.96	109.13	108.47	108.64	109.20	108.64	108.25	109.02	106.90	105.72	105.06	103.22	101.64	103.74	98.50
Nondurable goods	121.13	119.95	118.95	118.56	118.78	117.69	117.99	119.60	118.21	117.51	118.00	116.51	116.22	115.53	109.05
Food and kindred products	129.02	127.58	127.98	124.49	124.00	123.20	124.74	124.64	123.41	121.29	124.15	121.72	122.36	120.77	114.24
Tobacco manufactures	113.48	115.06	110.03	110.56	105.56	106.64	106.39	98.26	97.73	96.11	97.89	93.38	104.15	97.99	93.99
Textile mill products	97.20	98.09	96.47	96.56	97.04	96.80	96.80	99.95	99.46	98.57	98.81	97.58	95.65	95.47	91.05
Apparel and other textile products	84.49	84.25	82.84	83.90	84.85	83.78	83.07	84.37	83.77	83.77	83.77	83.85	81.85	82.93	79.78
Paper and allied products	144.28	142.96	142.12	140.43	140.70	140.37	142.04	144.29	142.43	142.66	143.32	141.37	140.61	139.32	130.85
Printing and publishing	147.03	147.03	145.89	145.15	145.92	144.02	143.26	148.59	145.15	144.77	144.75	142.82	141.31	141.70	133.28
Chemicals and allied products	,154.05	152.35	151.42	150.18	150.48	149.76	150.12	150.36	149.52	148.04	147.14	145.95	145.53	145.05	136.27
Petroleum and coal products	186.18	180.62	181.90	179.77	176.81	176.81	176.40	170.97	175.07	173.77	172.10	171.17	175.71	170.40	159.38
Rubber and plastics products, n e c	128.96	125.83	123.29	127.35	127.26	127.48	128.21	130.31	128.64	128.86	129.90	126.28	126.07	126.18	121.18
Leather and leather products	93.26	94.37	93.83	90.02	91.64	92.38	92.74	93.45	90.51	88.80	87.58	87.19	87.52	87.79	85.41
TRANSPORTATION AND PUBLIC UTILITIES	157.85	155.88	153.12	149.25	150.75	151.88	151.07	151.78	152.15	151.70	152.11	149.74	150.02	147.74	138.85
WHOLESALE AND RETAIL TRADE	98.01	96.12	94.50	93.88	93.80	93.80	93.02	93.18	92.58	92.13	92.46	93.70	93.08	91.14	86.40
Wholesale trade	137.42	136.34	136.06	135.66	136.00	135.20	134.67	135.94	133.87	132.59	132.18	131.22	130.17	129.85	122.31
Retail trade	85.40	83.11	81.41	80.25	80.49	79.92	79.49	80.14	79.30	79.20	79.69	81.19	80.96	78.66	74.95
FINANCE, INSURANCE, AND REAL ESTATE	112.55	111.57	111.57	111.81	112.85	112.48	111.44	110.26	111.23	109.45	108.41	108.04	107.96	108.33	101.75
SERVICES	98.07	96.95	96.04	95.70	96.81	95.01	93.98	94.11	94.11	92.81	92.38	92.49	92.84	91.26	84.32

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail see **Employment and Earnings**, table C–2.

p=preliminary.

22. Gross and spendable average weekly earnings of production or nonsupervisory workers [1] on private nonagricultural payrolls, in current and 1957–59 dollars, 1960 to date

Year and month	Total private						Manufacturing					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents				Worker with no dependents		Worker with 3 dependents	
	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars
1960	$80.67	$78.24	$65.95	$63.62	$72.96	$70.77	$89.72	$87.02	$72.57	$70.39	$80.11	$77.70
1961	82.60	79.27	67.08	64.38	74.48	71.48	92.34	88.62	74.60	71.59	82.18	78.87
1962	85.91	81.55	69.56	66.00	76.99	73.05	96.56	91.61	77.86	73.87	85.53	81.15
1963	88.46	82.91	71.05	66.59	78.56	73.63	99.63	93.37	79.82	74.81	87.58	82.08
1964	91.33	84.49	75.04	69.42	82.57	76.38	102.97	95.25	84.40	78.08	92.18	85.27
1965	95.06	86.50	78.99	71.87	86.30	78.53	107.53	97.84	89.08	81.06	96.78	88.06
1966	98.82	87.37	81.29	71.87	88.66	78.39	112.34	99.33	91.57	80.96	99.45	87.93
1967	101.84	87.57	83.38	71.69	90.86	78.13	114.90	98.80	93.28	80.21	101.26	87.07
1968	107.73	88.89	86.71	71.54	95.28	78.61	122.51	101.08	97.70	80.61	106.75	88.08
1969	114.61	89.75	90.96	71.23	99.99	78.30	129.51	101.42	101.90	79.80	111.44	87.27
1969:												
June	115.22	90.30	91.40	71.63	100.46	78.73	130.06	101.93	102.30	80.17	111.86	87.66
July	115.90	90.41	91.90	71.68	100.98	78.77	128.88	100.53	101.43	79.12	110.95	86.54
August	116.59	90.59	92.41	71.80	101.51	78.87	129.92	100.95	102.20	79.41	111.75	86.83
September	117.87	91.16	93.35	72.20	102.49	79.27	132.84	102.74	104.34	80.70	114.01	88.17
October	117.31	90.38	92.94	71.60	102.06	78.63	132.28	101.91	103.93	80.07	113.57	87.50
November	117.38	89.95	92.99	71.26	102.11	78.25	132.36	101.43	103.99	79.69	113.63	87.07
December	117.62	89.58	93.17	70.96	102.30	77.91	134.89	102.73	105.85	80.62	115.61	88.05
1970:												
January	116.12	88.10	93.43	70.89	101.97	77.37	131.93	100.10	105.28	79.88	114.48	86.86
February	116.55	87.96	93.76	70.76	102.32	77.22	130.94	98.82	104.53	78.89	113.69	85.80
March	117.92	88.53	94.78	71.16	103.39	77.62	132.40	99.40	105.63	79.30	114.85	86.22
April	117.34	87.57	94.35	70.41	102.95	76.83	131.80	98.36	105.18	78.49	114.37	85.35
May	118.40	87.96	95.14	70.68	103.77	77.10	132.93	98.76	106.02	78.77	115.27	85.64
June[p]	120.05	88.79	96.38	71.29	105.08	77.72	134.40	99.41	107.03	79.24	116.43	86.12

[1] For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

Spendable average weekly earnings are based on gross average weekly earnings as published in table 21 less the estimated amount of the workers' Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been computed for 2 types of income receivers: (1) A worker with no dependents and (2) a married worker with 3 dependents.

The earnings expressed in 1957–59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index.

These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation," in **Employment and Earnings and Monthly Report on the Labor Force**, February 1969, pp. 6–13.

NOTE: For additional detail see **Employment and Earnings**, table C–5.

[p]=preliminary.

23. Consumer and Wholesale Price Indexes, annual averages and changes, 1949 to date [1]

[Indexes: 1957–59=100]

Year	Consumer prices						Wholesale prices					
	All items		Commodities		Services		All commodities		Farm products, processed foods, and feeds		Industrial commodities	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1949	83.0	−1.0	87.1	−2.6	72.6	4.6	83.5	−5.0	94.3	−11.7	80.0	−2.1
1950	83.8	1.0	87.6	0.6	75.0	3.3	86.8	4.0	98.8	4.8	82.9	3.6
1951	90.5	8.0	95.5	9.0	78.9	5.2	96.7	11.4	112.5	13.9	91.5	10.4
1952	92.5	2.2	96.7	1.3	82.4	4.4	94.0	−2.8	108.0	−4.0	89.4	−2.3
1953	93.2	0.8	96.4	−.3	86.0	4.4	92.7	−1.4	101.0	−6.5	90.1	.8
1954	93.6	0.4	95.5	−.9	88.7	3.1	92.9	.2	100.7	−.3	90.4	.3
1955	93.3	−.3	94.6	−.9	90.5	2.0	93.2	.3	95.9	−4.8	92.4	2.2
1956	94.7	1.5	95.5	1.0	92.8	2.5	96.2	3.2	95.3	−.6	96.5	4.4
1957	98.0	3.5	98.5	3.1	96.6	4.1	99.0	2.9	98.6	3.5	99.2	2.8
1958	100.7	2.8	100.8	2.3	100.3	3.8	100.4	1.4	103.2	4.7	99.5	.3
1959	101.5	.8	100.9	.1	103.2	2.9	100.6	.2	98.4	−4.7	101.3	1.8
1960	103.1	1.6	101.7	.8	106.6	3.3	100.7	.1	98.6	.2	101.3	----------
1961	104.2	1.1	102.3	.6	108.8	2.1	100.3	−.4	98.6	----------	100.8	−0.5
1962	105.4	1.2	103.2	.9	110.9	1.9	100.6	.3	99.6	1.0	100.8	----------
1963	106.7	1.2	104.1	.9	113.0	1.9	100.3	−.3	98.7	−.9	100.7	−.1
1964	108.1	1.3	105.2	1.1	115.2	1.9	100.5	.2	98.0	−.7	101.2	.5
1965	109.9	1.7	106.4	1.1	117.8	2.3	102.5	2.0	102.1	4.2	102.5	1.3
1966	113.1	2.9	109.2	2.6	122.3	3.8	105.9	3.3	108.9	6.7	104.7	2.1
1967	116.3	2.8	111.2	1.8	127.7	4.4	106.1	.2	105.2	−3.4	106.3	1.5
1968	121.2	4.2	115.3	3.7	134.3	5.2	108.7	2.5	107.6	2.3	109.0	2.5
1969	127.7	5.4	120.5	4.5	143.7	7.0	113.0	4.0	113.5	5.5	112.7	3.4

[1] Historical price changes are shown in greater detail and for earlier years in the Bureau's **Handbook of Labor Statistics, 1969** (BLS Bulletin 1630), in tables 108–120.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items

[The official name of the index is, "Consumer Price Index for Urban Wage Earners and Clerical Workers." It measures the average change in prices of goods and services purchased by families and single workers. The indexes shown below represent the average of price changes in 56 metropolitan areas, selected to represent all U.S. urban places having populations of more than 2500.]

[1957–59=100 unless otherwise specified]

Item and group	General summary													
	1970							1969						Annual average 1969
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
All items	135.7	135.2	134.6	134.0	133.2	132.5	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.7
All items (1947–49=100)	166.5	165.9	165.2	164.4	163.4	162.5	161.7	161.1	160.1	159.3	158.6	157.9	157.3	156.7
Food	133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5
Food at home	128.7	128.0	127.8	127.4	127.4	127.4	126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.5
Food away from home	156.2	155.3	154.7	154.0	152.4	151.5	150.6	149.9	149.0	148.1	146.7	145.8	144.8	144.6
Housing	136.2	135.6	135.1	134.4	133.6	132.2	131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.7
Rent	123.8	123.4	123.0	122.6	122.3	121.8	121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.8
Homeownership	155.0	154.4	153.3	152.1	150.9	148.5	146.8	145.4	144.5	143.6	142.6	141.3	140.0	139.4
Apparel and upkeep	131.4	132.2	131.9	131.1	130.6	130.0	129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.1
Transportation	131.4	130.6	129.9	128.9	127.1	127.3	127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.2
Health and recreation	144.3	143.7	142.9	142.3	141.4	140.7	140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.6
Medical care	165.8	164.7	163.6	162.8	161.6	160.1	159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.0
Special groups:														
All items less shelter	133.0	132.6	132.1	131.5	130.7	130.3	129.8	129.5	128.6	128.1	127.6	127.1	126.7	126.3
All items less food	136.6	136.1	135.5	134.8	133.8	133.0	132.3	131.9	131.4	130.8	130.0	129.3	128.8	128.6
All items less medical care	133.9	133.4	132.9	132.2	131.5	130.8	130.1	129.7	128.9	128.2	127.6	127.0	126.5	126.1
Commodities	126.5	126.2	125.8	125.2	124.5	124.2	123.7	123.6	122.9	122.4	121.7	121.4	121.0	120.5
Nondurables	130.4	130.0	129.8	129.3	128.7	128.4	127.8	127.7	126.7	126.1	125.8	125.2	124.7	124.1
Durables	116.9	116.7	115.9	114.8	114.1	113.7	113.7	113.6	113.5	113.2	111.6	111.9	111.9	111.6
Services	155.8	155.0	154.1	153.4	152.3	150.7	149.6	148.3	147.2	146.5	146.0	145.0	144.0	143.7
Commodities less food	122.9	122.8	122.3	121.6	120.8	120.4	120.1	120.3	120.2	119.8	118.7	118.2	118.1	118.0
Nondurables less food	127.8	127.7	127.5	127.0	126.1	125.8	125.2	125.7	125.5	125.1	124.4	123.3	123.1	123.0
Apparel commodities	130.5	131.4	131.2	130.4	129.9	129.3	128.6	130.3	130.4	129.3	128.1	125.9	126.2	126.5
Apparel commodities less footwear	127.2	128.3	128.0	127.1	126.7	126.2	125.5	127.5	127.7	126.6	125.3	122.8	123.5	123.7
Nondurables less food and apparel	126.2	125.5	125.3	125.0	123.9	123.7	123.2	123.0	122.6	122.6	122.2	121.7	121.3	121.0
Household durables	108.3	108.2	108.0	107.8	107.4	106.9	106.6	106.5	106.5	106.4	106.2	106.0	106.0	105.5
Housefurnishings	112.5	112.4	112.2	112.0	111.7	111.1	110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0
Services/less rent	162.8	161.9	161.0	160.1	158.9	157.1	155.8	154.3	153.1	152.3	151.7	150.7	149.6	149.2
Household services less rent	161.6	160.6	160.0	159.1	157.7	155.0	153.2	152.4	151.4	150.4	149.5	148.2	146.9	146.4
Transportation services	158.6	157.1	156.1	155.5	154.5	154.1	152.9	148.4	145.8	145.1	144.0	143.1	142.5	142.9
Medical care services	181.8	180.6	179.3	178.4	177.0	175.2	173.8	172.8	171.8	171.2	172.2	171.1	170.1	168.9
Other services	153.8	153.4	152.3	151.4	150.3	149.8	149.4	148.9	148.2	147.6	147.2	146.5	145.7	145.5

	Other index bases	U.S. average for groups, subgroups, and selected items												
FOOD		133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5
Food away from home		156.2	155.3	154.7	154.0	152.4	151.5	150.6	149.9	149.0	148.1	146.7	145.8	144.8	144.6
Restaurant meals		156.2	155.4	154.8	154.2	152.5	151.6	150.7	150.2	149.3	148.3	147.2	146.2	145.1	144.9
Snacks	Dec. 63	136.5	135.2	134.6	134.0	132.4	132.0	131.4	129.9	129.2	128.8	126.2	125.6	125.1	125.4
Food at home		128.7	128.0	127.8	127.4	127.4	127.4	126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.5
Cereals and bakery products		128.8	128.2	128.0	127.6	127.0	126.3	125.5	124.9	124.1	123.7	123.0	122.6	122.6	122.4
Flour		113.1	113.3	113.2	114.2	113.1	112.1	111.9	110.9	111.2	111.6	111.2	111.4	111.6	111.5
Cracker meal	Dec. 63	136.7	136.4	135.7	134.3	132.9	130.2	127.8	127.9	127.2	126.9	125.8	124.7	123.3	122.3
Corn flakes		130.4	130.4	130.5	130.0	130.4	130.2	130.2	130.0	129.7	129.6	129.4	129.4	129.0	129.2
Rice		114.9	115.1	115.0	114.8	114.4	114.2	113.8	113.4	113.0	113.0	112.9	112.6	112.3	112.3
Bread, white		135.0	133.4	134.1	133.3	133.4	132.6	132.2	131.1	129.7	129.1	128.8	128.1	128.2	128.1
Bread, whole wheat	Dec. 63	126.1	125.7	125.3	125.7	125.6	125.5	124.4	124.1	123.4	122.5	121.6	120.3	120.9	120.5
Cookies		107.2	105.7	104.7	103.4	102.4	101.7	101.3	100.9	99.8	99.8	101.0	100.9	100.9	100.6
Layer cake	Dec. 63	121.8	121.8	121.5	121.7	121.3	119.9	118.1	118.0	117.1	115.4	113.2	113.8	113.6	113.7
Cinnamon rolls	Dec. 63	119.6	118.8	118.5	118.2	116.4	116.7	116.3	115.8	115.1	115.2	113.2	112.8	113.4	113.1
Meats, poultry, and fish		130.8	130.2	130.5	130.9	130.2	129.7	128.8	127.2	127.2	127.6	129.0	127.9	127.6	123.2
Meats		135.2	134.5	135.0	135.6	134.7	133.9	132.9	131.3	131.1	132.0	133.1	131.9	131.7	126.8
Beef and veal		136.6	135.3	135.9	136.5	133.6	133.0	132.2	130.6	131.5	132.9	135.0	135.4	136.8	129.5
Steak, round		128.8	127.6	129.0	131.1	126.9	126.4	126.2	123.2	125.2	126.8	128.1	129.9	132.5	124.4
Steak, sirloin	Apr. 60	128.0	124.3	124.3	124.5	121.8	120.4	121.4	119.0	121.1	123.4	128.3	127.4	131.1	121.7
Steak, porterhouse	Dec. 63	132.8	130.1	129.2	130.5	126.8	126.4	126.6	123.9	125.9	129.0	132.9	132.7	135.5	126.4
Rump roast	Dec. 63	123.4	123.1	124.2	125.1	121.1	120.1	120.7	118.8	119.5	121.1	122.1	123.4	125.0	118.4
Rib roast		142.5	140.6	142.7	142.8	141.2	141.8	141.6	140.5	140.9	140.8	145.9	146.5	150.1	139.7
Chuck roast		126.2	125.8	128.0	130.0	126.9	126.7	122.1	123.2	122.7	125.3	127.2	128.7	131.0	122.3
Hamburger		143.5	142.7	142.8	142.4	140.8	140.5	138.7	137.8	138.4	139.1	140.9	140.5	140.0	134.0
Beef liver	Dec. 63	121.4	121.2	121.8	121.1	120.5	119.9	118.7	118.6	117.9	117.8	117.8	117.8	115.4	113.2
Veal cutlets		174.2	173.1	171.8	171.1	168.1	166.0	164.0	162.0	162.1	162.8	162.8	162.1	161.1	156.4

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24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
FOOD—Continued															
Meats, poultry, and fish—Continued															
Meats—Continued															
Pork		134.9	134.4	134.8	135.9	137.9	137.2	135.6	133.3	132.0	132.7	133.7	130.2	129.0	125.2
Chops		137.5	135.5	135.1	135.6	139.7	139.5	136.9	135.7	134.1	134.0	137.6	135.7	136.4	129.6
Loin roast	Apr. 60	144.3	142.6	143.6	143.5	146.1	146.2	143.7	143.4	140.4	141.8	143.0	141.3	141.9	135.8
Pork sausage	Dec. 63	149.5	150.5	150.4	150.6	150.6	148.6	146.7	146.8	148.3	149.1	149.6	146.0	143.6	137.8
Ham, whole		125.9	126.5	129.0	133.5	135.3	134.0	136.9	130.7	124.8	123.9	121.8	117.0	114.2	117.1
Picnics	Dec. 63	137.2	137.5	138.5	139.9	142.1	139.9	137.7	134.7	136.0	136.5	135.5	134.5	130.9	127.5
Bacon		137.4	137.4	137.1	138.2	138.7	138.8	136.7	133.1	132.4	134.9	135.6	128.7	126.8	124.3
Other meats		137.2	137.4	137.9	138.0	137.3	136.0	135.3	134.4	133.6	133.3	132.6	131.2	128.8	127.7
Lamb chops	Dec. 63	141.9	141.0	141.2	142.0	142.2	140.8	140.9	140.4	139.4	139.9	139.7	139.3	140.9	137.0
Frankfurters		137.1	137.1	138.2	137.4	136.1	134.2	134.2	134.6	134.7	134.7	135.4	133.7	129.4	127.4
Ham, canned	Dec. 63	132.8	134.4	136.7	138.3	138.3	136.6	134.8	130.4	127.8	125.1	122.6	120.6	115.6	120.0
Bologna sausage	Dec. 63	140.5	139.7	139.5	139.7	138.4	137.7	137.2	136.6	136.1	136.2	136.2	134.5	132.0	129.3
Salami sausage	Dec. 63	131.5	131.9	132.0	131.8	130.4	128.6	128.0	127.9	127.1	127.2	127.0	126.0	123.7	122.1
Liverwurst	Dec. 63	132.5	133.2	132.9	131.9	131.6	131.4	130.1	129.9	129.8	129.9	128.0	126.3	125.0	123.7
Poultry		97.5	97.4	97.1	97.1	97.9	99.1	99.5	97.9	99.1	98.2	102.0	101.4	100.4	96.9
Frying chicken		96.6	95.9	95.3	95.4	96.7	98.5	99.4	97.9	99.5	98.6	103.8	103.3	103.1	98.1
Chicken breasts	Dec. 63	108.0	108.2	109.2	109.4	110.4	110.4	110.1	110.4	110.8	112.0	113.8	113.0	109.4	108.4
Turkey	Dec. 63	117.3	119.2	119.5	119.0	116.9	115.9	114.4	110.3	110.0	107.2	105.9	104.7	101.8	102.8
Fish		143.4	143.2	142.3	141.1	139.8	138.3	137.0	135.4	134.0	133.4	132.2	131.5	130.6	130.6
Shrimp, frozen	Dec. 63	127.4	128.2	127.8	126.8	127.4	126.2	125.4	124.4	122.9	122.5	121.0	120.8	119.7	119.3
Fish, fresh or frozen		156.2	154.4	153.0	152.5	150.9	148.1	145.2	143.4	141.1	139.9	138.6	137.2	134.5	134.6
Tuna, fish, canned		126.8	126.6	126.0	124.5	123.1	121.6	120.5	117.9	116.7	116.2	114.9	114.4	113.6	114.4
Sardines, canned	Dec. 63	131.7	131.9	130.8	129.3	126.9	126.5	126.0	125.4	125.0	124.9	124.2	123.5	124.4	124.2
Dairy products		130.6	130.2	129.9	129.5	129.4	128.8	128.4	127.6	126.3	125.8	125.5	125.0	124.4	124.5
Milk, fresh, grocery		126.6	126.3	126.6	126.5	126.8	126.2	126.1	125.0	123.4	122.8	122.8	122.3	121.7	121.8
Milk, fresh, delivered		134.5	134.2	134.0	133.9	133.5	133.1	132.7	132.3	130.4	130.1	129.4	128.7	128.0	128.4
Milk, fresh, skim	Dec. 63	129.4	129.4	129.2	128.3	128.4	127.3	127.4	126.0	125.0	124.3	124.8	124.3	122.9	123.0
Milk, evaporated		133.1	131.5	129.7	127.9	127.7	127.4	126.4	125.0	124.3	123.8	124.1	124.1	123.9	123.5
Ice cream		104.5	103.8	103.4	102.7	102.7	102.1	102.1	102.0	100.7	99.9	100.1	99.5	99.0	99.5
Cheese, American process		157.9	157.4	157.2	157.3	156.4	154.8	153.1	152.4	151.0	149.9	148.9	148.5	147.7	146.8
Butter		121.4	121.1	121.0	120.2	119.5	119.5	119.9	119.6	119.4	119.9	118.3	118.0	118.0	118.3
Fruits and vegetables		137.5	139.4	136.8	134.7	133.1	132.4	130.9	132.1	127.0	124.0	126.8	130.2	132.3	128.4
Fresh fruits and vegetables		152.2	155.9	151.5	148.0	145.7	144.5	141.9	144.1	135.4	130.1	134.9	141.0	145.0	138.1
Apples		178.0	166.0	149.7	141.3	139.6	135.8	134.0	129.3	125.7	131.7	174.6	190.5	192.9	162.5
Bananas		92.4	102.4	101.6	101.4	101.9	96.5	94.5	93.3	93.9	100.7	99.6	97.4	97.7	95.3
Oranges		135.6	129.1	123.7	122.4	125.4	124.5	121.5	125.0	132.4	131.9	132.1	132.7	127.9	128.4
Orange juice, fresh	Dec. 63	90.1	89.5	90.1	89.9	90.6	90.7	90.5	91.5	91.8	92.0	92.1	92.0	91.4	90.9
Grapefruit		215.4	189.7	160.1	152.4	150.6	151.7	143.7	142.0	144.1	184.0	205.9	194.6	156.6	155.1
Grapes		197.3	(1)	(1)	162.7	(1)	(1)	(1)	(1)	154.3	144.0	137.8	147.4	188.3	154.4
Strawberries		(1)	133.2	128.1	134.9	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	131.9
Watermelon		141.0	180.7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	116.1	119.6	131.9
Potatoes		194.2	177.2	166.9	159.9	153.3	151.1	144.3	142.0	140.1	137.6	144.5	159.0	165.2	144.8
Onions		172.9	173.0	180.0	180.8	171.0	166.9	140.5	136.4	133.2	134.2	139.0	152.2	141.5	134.1
Asparagus	Dec. 63	133.5	132.1	138.9	119.3	176.6	(1)	141.6	(1)	(1)	(1)	(1)	(1)	129.6	138.7
Cabbage		182.4	219.6	194.3	202.1	204.5	211.3	188.7	173.4	150.6	145.9	135.6	138.3	145.7	152.0
Carrots		123.4	121.0	117.3	115.3	122.1	145.3	139.2	146.6	127.1	129.6	128.3	139.6	129.5	123.8
Celery		133.1	175.6	160.5	128.7	136.2	143.6	140.5	132.2	131.2	115.5	120.1	130.2	151.8	125.6
Cucumbers	Dec. 63	125.9	139.4	154.6	214.0	209.1	208.5	203.4	176.5	122.5	118.5	111.7	122.5	123.0	148.1
Lettuce		127.1	126.1	138.9	125.2	123.0	122.7	137.6	189.5	177.9	133.3	130.8	124.2	126.8	144.4
Peppers, green	Dec. 63	174.5	244.1	344.4	299.7	265.5	283.9	231.2	217.2	160.9	145.7	147.8	146.4	165.6	172.4
Spinach	Dec. 63	117.2	117.3	117.5	119.9	118.3	122.0	120.3	121.8	116.5	120.1	118.0	117.2	118.8	114.8
Tomatoes		140.1	154.5	145.2	159.0	136.1	134.8	168.1	177.5	146.7	119.0	103.2	116.3	131.0	138.1
Processed fruits and vegetables		119.1	118.6	118.3	118.0	117.3	117.3	117.1	117.1	116.8	116.6	116.9	116.7	116.4	116.3
Fruit cocktail, canned		107.9	106.3	106.3	106.2	105.3	104.9	105.3	106.2	105.4	105.6	106.6	106.3	107.1	106.4
Pears, canned	Dec. 63	107.4	105.9	105.6	104.9	104.9	105.4	106.0	106.4	106.9	107.6	108.2	108.8	108.6	108.7
Grapefruit-pineapple juice, canned	Dec. 63	105.6	105.4	105.5	105.2	104.1	103.7	103.0	102.4	102.6	102.2	101.8	101.0	100.4	100.5
Orange juice concentrate, frozen		91.6	92.4	92.4	92.6	93.5	96.5	96.4	97.4	97.2	98.2	99.4	100.0	100.4	98.9
Lemonade concentrate, frozen	Apr. 60	94.6	95.4	97.0	96.5	95.9	94.8	95.1	94.7	94.1	93.8	93.3	92.5	90.6	92.5
Beets, canned	Dec. 63	117.7	117.2	115.9	116.2	115.0	114.1	113.9	113.6	113.3	112.8	113.1	112.8	113.3	113.2
Peas, green, canned		123.0	123.0	122.0	123.1	121.8	122.2	122.4	122.4	123.1	122.9	122.9	122.7	121.7	121.7
Tomatoes, canned		136.7	135.1	133.3	130.7	128.0	127.2	126.7	126.6	125.5	124.8	124.1	124.6	124.5	124.7
Dried beans		121.1	120.9	121.3	121.5	122.0	123.4	123.1	123.3	123.6	124.3	125.0	125.0	124.7	124.7
Broccoli, frozen	Dec. 63	113.5	113.4	112.9	113.0	112.7	111.8	110.8	109.6	108.0	106.7	107.5	106.7	105.4	104.7
Other food at home		116.0	113.3	113.7	113.8	116.0	118.1	117.7	116.6	112.9	111.0	110.5	110.5	107.2	109.9
Eggs		105.3	91.9	97.7	103.6	122.6	141.0	143.0	140.6	122.3	114.5	113.8	114.4	95.6	112.1
Fats and oils:															
Margarine		111.9	112.0	111.4	108.8	106.1	105.6	105.6	105.0	103.7	102.7	102.2	102.4	103.1	103.0
Salad dressing, Italian	Dec. 63	104.3	103.6	103.2	102.3	102.2	101.9	102.5	102.6	102.5	102.8	102.3	102.3	102.4	102.6
Salad or cooking oil	Dec. 63	137.5	135.4	134.7	131.2	129.1	127.2	126.2	124.8	123.9	123.0	123.6	123.6	123.5	123.4
Sugar and sweets		132.7	132.2	131.8	130.5	129.7	128.6	128.1	127.5	126.6	126.4	126.0	125.4	125.3	125.1
Sugar		121.6	120.3	119.6	118.9	118.2	117.2	116.7	116.2	116.2	116.3	116.4	116.5	116.2	115.3
Grape jelly		132.7	132.5	132.3	131.3	131.5	130.6	129.7	128.7	126.5	125.6	124.7	123.9	123.9	124.1
Chocolate bar		134.2	133.7	133.2	130.1	127.9	126.6	127.1	127.4	126.6	126.7	126.5	125.1	124.9	125.1
Syrup, chocolate flavored	Dec. 63	110.6	110.5	110.6	110.3	110.1	109.3	108.1	107.1	106.9	106.8	106.5	106.5	106.4	106.1

See footnotes at end of table.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Item or group	Other index bases	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
FOOD—Continued															
Other food at home—Continued															
Nonalcoholic beverages		117.7	116.5	115.2	114.0	112.4	110.7	109.1	107.4	106.1	104.3	103.7	103.8	103.3	103.7
Coffee, can and bag		107.3	105.4	103.6	102.2	99.7	97.4	94.9	92.3	90.0	87.0	86.6	86.7	86.3	87.5
Coffee, instant	July 61	115.7	115.7	114.7	114.1	113.1	111.0	109.6	108.0	106.0	104.2	103.8	103.9	103.6	103.2
Tea		106.4	105.9	104.8	103.6	103.1	103.6	103.1	102.9	102.2	102.1	102.0	102.2	102.0	101.8
Cola drink		164.8	164.2	163.0	162.0	161.9	160.3	159.3	158.4	158.7	158.0	156.8	156.6	155.3	155.3
Carbonated fruit drink	Dec. 63	131.4	130.5	130.0	128.5	127.4	126.0	125.5	124.8	124.7	124.5	123.4	123.1	122.7	121.9
Prepared and partially prepared foods	Dec. 63	110.1	110.1	110.1	109.8	109.5	109.0	108.5	108.2	107.6	107.4	106.9	106.7	106.2	106.2
Bean soup, canned	Dec. 63	111.5	111.3	111.1	110.5	110.4	110.9	109.7	108.8	107.2	106.3	105.6	105.4	105.1	105.0
Chicken soup, canned	Dec. 63	10'.1	102.3	102.3	102.0	101.8	101.1	100.8	100.3	99.5	98.3	98.1	98.3	98.0	98.0
Spaghetti, canned	Dec. 63	124.0	123.4	123.2	122.7	121.8	121.1	120.8	120.4	119.8	118.9	117.2	117.3	117.0	117.1
Mashed potatoes, instant	Dec. 63	111.0	110.8	110.7	110.6	110.5	110.3	109.7	109.6	110.0	109.6	108.9	108.5	108.1	107.2
Potatoes, french fried, frozen	Apr. 60	93.3	93.4	93.5	93.2	93.2	92.8	92.7	92.5	92.1	92.8	92.7	92.5	91.8	91.4
Baby foods, canned		112.7	112.6	112.5	112.9	112.0	112.0	112.1	111.9	111.4	111.7	112.7	112.1	111.7	111.6
Sweet pickle relish	Dec. 63	116.4	117.0	117.6	118.0	117.2	116.0	115.6	115.0	114.3	114.2	112.6	112.0	111.0	112.8
Pretzels	Dec. 63	110.4	110.3	110.1	110.0	109.1	108.3	107.1	107.5	107.0	107.6	107.6	107.6	107.4	107.1
HOUSING		136.2	135.6	135.1	134.4	133.6	132.2	131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.7
Shelter		146.2	145.6	144.7	143.7	142.8	140.9	139.6	138.5	137.7	137.0	136.1	135.1	134.0	133.6
Rent		123.8	123.4	123.0	122.6	122.3	121.8	121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.8
Homeownership		155.0	154.4	153.3	152.1	150.9	148.5	146.8	145.4	144.5	143.6	142.6	141.3	140.0	139.4
Mortgage interest rates	Dec. 63	149.1	149.1	149.2	149.1	148.9	143.5	139.9	139.6	139.3	138.8	138.2	137.1	135.8	134.4
Property taxes		140.5	139.8	139.4	138.2	134.7	133.6	133.0	132.0	131.5	130.5	130.4	129.9	128.7	129.0
Property insurance rates		154.6	153.5	153.2	153.6	153.2	152.8	152.5	153.3	152.3	150.7	149.5	150.3	149.6	148.7
Maintenance and repairs		152.4	151.4	149.9	148.8	148.3	146.9	146.4	145.8	144.9	144.5	143.8	142.4	141.5	140.7
Commodities	Dec. 63	120.3	119.6	118.4	117.8	117.2	116.5	116.1	115.9	116.0	116.2	116.7	117.2	117.5	116.1
Exterior house paint		122.3	120.7	119.9	119.9	121.0	119.8	119.3	119.1	118.7	118.0	117.6	116.5	115.7	116.5
Interior house paint	Dec. 63	115.7	115.6	115.0	114.6	114.7	114.8	114.1	114.3	113.6	113.8	113.1	113.1	112.3	112.4
Services	Dec. 63	150.4	149.3	147.9	146.7	146.2	144.7	144.1	143.5	142.2	141.6	140.4	138.2	136.9	136.4
Repainting living and dining rooms		198.0	196.3	191.7	187.9	186.8	185.4	184.6	183.6	182.6	181.8	179.7	178.3	176.1	174.6
Reshingling roofs		169.8	168.0	167.1	165.6	166.1	165.4	164.9	164.1	163.0	162.3	161.4	157.6	155.4	155.8
Residing houses	Dec. 63	1 9.2	138.3	137.4	137.1	136.7	135.0	134.6	134.0	134.2	133.7	133.0	130.0	129.3	129.0
Replacing sinks	Dec. 63	152.7	151.6	150.4	149.1	148.2	145.6	145.2	144.5	142.6	142.0	140.4	139.0	137.8	137.4
Repairing furnaces	Dec. 63	155.2	154.3	153.7	152.9	152.4	151.3	150.0	149.7	145.2	144.1	142.8	141.2	139.7	139.1
Fuel and utilities		117.2	116.2	116.4	116.3	115.6	114.9	114.6	114.6	114.2	113.5	113.3	113.0	112.6	112.9
Fuel oil and coal		122.3	121.2	121.0	120.9	120.8	120.6	119.7	119.2	118.9	118.4	118.1	117.7	117.4	117.8
Fuel oil, #2		119.1	118.3	118.0	117.8	117.8	117.5	116.6	116.2	116.0	115.5	115.4	115.2	115.0	115.1
Gas and electricity		115.7	115.3	115.8	115.7	114.8	114.6	114.1	113.7	113.2	112.2	112.0	111.5	110.9	111.5
Gas		122.3	122.0	123.2	123.1	121.9	121.5	120.5	119.8	118.8	116.9	116.7	116.1	115.7	116.8
Electricity		108.7	108.3	108.2	108.0	107.5	107.4	107.4	107.2	107.2	106.9	106.8	106.4	105.6	105.8
Other utilities:															
Residential telephone services		105.2	104.9	104.9	104.8	103.9	102.8	103.0	103.8	103.7	103.6	103.6	103.6	103.6	103.5
Residential water and sewerage		158.7	151.0	151.0	151.0	151.0	147.5	147.5	147.5	147.5	145.3	145.3	145.3	145.3	144.4
Household furnishings and operation		123.0	122.8	122.5	122.0	121.6	120.8	120.1	120.0	119.6	119.3	119.0	118.5	118.2	117.9
Housefurnishings		112.5	112.4	112.2	112.0	111.7	111.1	110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0
Textiles		116.7	116.7	116.2	116.7	116.4	115.7	114.2	116.1	115.7	115.0	115.2	113.8	114.8	114.4
Sheets, percale or muslin		120.8	122.0	121.8	123.6	122.7	120.8	117.3	122.2	121.7	120.1	119.8	116.2	118.7	119.6
Curtains, tailored, polyester marquisette		113.9	113.1	113.2	113.3	113.7	112.7	111.6	112.3	112.1	112.0	112.0	112.0	111.6	110.9
Bedspreads, chiefly cotton, tufted		117.9	117.5	116.8	117.8	117.1	116.6	115.0	117.6	117.7	117.1	116.9	115.7	116.5	116.2
Drapery fabric, cotton or rayon/acetate		127.4	126.6	127.3	127.0	126.5	125.8	125.0	126.6	126.0	124.1	124.5	125.0	124.8	123.1
Slipcovers, ready made, chiefly cotton	Dec. 63	115.2	114.3	112.7	111.8	112.1	112.3	111.0	110.4	110.0	111.1	110.0	110.3	110.1	109.6
Furniture and bedding		126.7	126.7	126.6	126.0	125.4	124.6	124.1	123.9	123.7	123.6	122.9	122.4	122.1	121.5
Bedroom furniture chest and dresser [3]	Mar. 70	100.9	100.6	100.5	100.4										
Living room suites, good and inexpensive quality		128.8	128.3	128.1	127.9	127.3	126.1	126.0	126.3	125.8	125.9	124.9	124.8	123.9	123.7
Lounge chairs, upholstered	Dec. 63	122.2	122.1	122.5	121.9	121.0	120.0	120.0	118.8	118.6	118.9	119.0	117.9	116.5	115.8
Dining room chairs [4]	Mar. 70	100.6	100.6	100.2	100.2										
Sofas, upholstered	Dec. 63	121.1	120.0	119.1	118.7	118.0	116.5	116.3	116.5	115.7	115.9	114.8	115.1	114.3	114.2
Sofas, dual purpose		122.2	123.9	123.3	122.6	120.6	120.0	120.5	120.0	120.2	118.9	118.8	118.6	117.9	117.2
Mattresses and box springs [6]	June 70	99.5	100.0												
Cribs	Dec. 63	122.1	121.4	121.4	120.0	120.6	119.9	119.6	119.8	119.5	119.2	117.1	118.0	117.7	117.0
Floor coverings		107.2	107.2	107.4	106.9	106.9	106.9	106.8	107.1	107.1	107.1	107.0	106.3	106.4	106.5
Rugs, soft surface		103.7	103.9	104.2	103.8	103.9	104.0	104.0	104.7	104.8	104.9	104.9	104.1	104.4	104.5
Rugs, hard surface		114.6	114.0	113.7	113.7	113.7	113.6	113.2	112.5	112.5	112.1	111.8	111.6	111.5	111.2
Tile, vinyl	Dec. 63	113.5	113.1	113.1	111.8	111.7	111.3	110.3	110.3	110.1	109.6	109.3	108.5	108.2	108.4
Appliances		87.3	87.2	87.1	87.1	86.8	86.6	86.5	86.4	86.3	86.2	86.0	86.0	85.9	85.8
Washing machines, electric, automatic		93.1	93.0	92.9	92.9	92.4	92.3	91.8	91.5	91.2	90.9	91.0	90.8	90.5	90.6
Vacuum cleaners, canister type		81.4	81.2	81.5	81.6	81.3	81.5	81.8	81.4	81.4	81.5	81.3	82.1	82.0	81.5

See footnotes at end of table.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
HOUSING—Continued															
Household furnishings and operation—Con.															
Appliances—Continued															
Refrigerators or refrigerator-freezers, electric		87.6	87.5	87.3	87.5	87.2	86.8	86.1	86.0	85.8	85.8	85.8	85.7	85.4	85.3
Ranges, free standing, gas or electric		101.0	100.7	100.2	100.7	100.1	99.3	99.0	99.0	98.8	98.5	98.1	98.2	97.6	97.7
Clothes dryers, electric, automatic	Dec. 63	102.7	102.6	101.9	102.1	101.8	101.3	100.8	100.6	100.5	99.8	99.6	99.7	99.5	99.4
Air conditioners, demountable	June 64	101.6	101.5	101.3	101.3	(2)	(1)	(1)	(1)	(1)	(1)	(1)	99.8	99.7	99.5
Room heaters, electric, portable	Dec. 63	(1)	(1)	(1)	(1)	100.5	100.6	100.6	100.4	99.8	99.6	(2)	(1)	(1)	98.8
Garbage disposal units	Dec. 63	108.5	108.2	107.4	107.2	106.6	105.9	105.5	105.0	105.0	104.7	104.3	103.9	103.9	103.9
Other house furnishings:															
Dinnerware, earthenware		139.6	139.3	138.3	138.1	138.1	137.1	136.2	135.6	135.2	134.8	134.3	133.5	133.6	133.3
Flatware, stainless steel	Dec. 63	121.6	121.0	120.8	120.7	120.4	120.1	119.2	119.0	119.6	119.6	119.8	119.6	119.5	118.7
Table lamps, with shade	Dec. 63	120.9	121.6	121.4	121.2	119.9	118.6	118.3	118.7	118.3	117.8	116.0	115.4	115.3	114.6
Housekeeping supplies:															
Laundry soaps and detergents		110.3	110.0	110.0	109.8	110.0	108.8	108.1	107.1	106.2	106.8	107.4	107.4	106.4	106.3
Paper napkins		140.5	139.5	138.5	136.4	134.7	131.3	129.8	131.0	130.0	129.0	128.6	128.0	127.2	128.2
Toilet tissue		129.9	129.7	129.4	127.8	126.8	123.5	121.9	120.3	121.2	121.2	120.7	119.1	119.5	118.9
Housekeeping services:															
Domestic service, general housework		186.8	186.6	185.5	184.8	182.5	182.0	180.5	179.9	178.7	177.6	175.1	173.9	172.9	173.5
Baby sitter service	Dec. 63	142.4	141.8	141.5	140.9	140.0	138.6	137.6	137.4	136.6	135.7	135.6	134.9	134.5	133.7
Postal charges		165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5
Laundry, flatwork, finished service	Dec. 63	150.6	150.2	150.0	149.8	149.1	147.9	147.5	146.8	144.3	143.2	142.7	141.4	140.6	140.6
Licensed day care service, preschool child	Dec. 63	133.1	132.7	132.5	132.1	132.0	132.0	132.0	131.8	131.8	130.7	130.3	129.7	128.4	127.9
Washing machine repairs	Dec. 63	140.8	140.2	140.4	139.8	139.6	138.3	136.6	135.4	135.1	135.2	134.4	133.5	133.0	131.7
APPAREL AND UPKEEP		131.4	132.2	131.9	131.1	130.6	130.0	129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.1
Men's and boys'		132.8	134.2	133.9	133.4	132.3	131.0	130.8	132.0	132.1	131.0	130.0	128.7	128.1	128.5
Men's:															
Topcoats, wool		(1)	(1)	(1)	(1)	144.1	141.0	143.7	147.4	148.5	145.9	144.0	(1)	(1)	142.9
Suits, year round weight		158.6	160.5	160.2	159.8	157.3	153.9	154.2	158.2	158.2	156.4	154.5	150.7	149.6	150.9
Suits, tropical weight	June 64	131.8	140.5	138.4	137.4	136.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	127.7	128.6
Jackets, lightweight	Dec. 63	124.8	125.2	125.1	125.3	125.3	125.6	125.5	125.7	125.6	125.4	125.2	125.0	125.1	124.6
Slacks, wool or wool blend		130.8	132.8	132.7	131.8	131.0	129.6	130.0	131.2	131.7	130.4	128.9	127.1	126.1	127.4
Slacks, cotton or manmade blend		123.4	123.7	123.4	123.0	120.9	119.4	117.6	117.6	117.1	115.6	115.2	114.5	112.1	113.9
Trousers, work, cotton		118.4	117.8	117.1	117.2	116.6	116.4	116.0	117.2	117.0	116.9	116.9	116.8	116.9	116.4
Shirts, work, cotton		127.0	126.8	126.5	126.4	126.0	124.9	124.4	124.2	124.7	124.2	123.2	123.3	123.1	122.9
Shirts, business, cotton		125.1	124.6	124.2	124.1	123.7	123.2	122.5	122.3	122.2	122.2	121.8	121.6	121.5	121.3
T-shirts, chiefly cotton		135.0	134.7	134.6	134.1	132.9	133.3	132.4	131.9	131.8	131.5	130.6	130.6	130.1	130.0
Socks, cotton		123.3	123.1	122.6	122.6	121.5	121.3	120.9	120.9	120.4	121.1	121.6	121.6	121.1	119.8
Handkerchiefs, cotton	Dec. 63	115.5	115.3	115.1	114.4	114.2	113.9	113.8	113.8	113.3	112.9	112.7	112.4	112.3	112.1
Boys':															
Coats, all purpose, cotton or cotton blend	Dec. 63	(1)	(1)	(1)	(1)	114.6	114.3	114.2	116.1	115.9	115.2	113.5	(1)	(1)	112.4
Sport coats, wool or wool blend	Dec. 63	(1)	(1)	(1)	(1)	(1)	(1)	127.8	130.3	131.0	126.4	122.5	(1)	(1)	125.6
Dungarees, cotton or cotton blend		128.0	130.1	130.1	129.5	129.5	129.4	128.9	127.1	127.9	126.9	127.4	127.4	127.2	126.3
Undershorts, cotton		131.3	131.5	131.6	130.9	130.5	129.9	130.1	130.3	130.3	129.0	128.9	128.4	127.9	127.1
Women's and girls'		125.8	126.8	126.6	125.2	125.3	125.4	124.2	127.2	127.4	126.2	124.6	120.8	122.5	122.8
Women's:															
Coats, heavyweight, wool or wool blend		(1)	(1)	(1)	(1)	(1)	(1)	124.9	136.2	139.9	139.9	136.0	(1)	(1)	134.4
Skirts, wool or wool blend	Sept. 61	(1)	(1)	(1)	(1)	(1)	121.0	135.6	144.6	145.3	133.9	129.4	(1)	(1)	129.3
Skirts, cotton or cotton blend	Mar. 62	130.0	136.3	136.3	135.2	(2)	(1)	(1)	(1)	(1)	(1)	(1)	121.8	130.7	129.3
Blouses, cotton		126.2	130.6	129.7	127.1	125.3	124.9	126.9	127.6	127.2	125.4	122.7	122.2	122.4	123.6
Dresses, street, chiefly manmade fiber		156.1	155.8	156.5	158.9	158.5	158.7	155.9	158.3	158.8	155.9	152.5	147.3	147.6	150.2
Dresses, street, wool or wool blend		(1)	(1)	(1)	(1)	(1)	(1)	144.2	145.7	144.8	145.7	140.8	(1)	(1)	141.0
Dresses, street, cotton		(5)	(5)	(5)	(5)	(5)	(1)	(1)	(1)	(1)	(1)	(1)	136.6	149.9	147.2
Housedresses, cotton		(5)	(5)	(5)	(5)	(5)	153.5	152.3	153.0	152.1	150.7	149.0	150.0	148.8	147.9
Slips, nylon		115.2	115.8	115.6	114.7	114.2	114.6	113.4	112.3	112.2	111.9	111.9	111.6	109.7	110.8
Panties, acetate		114.5	113.5	113.3	112.7	113.2	112.7	112.0	111.2	111.4	110.5	109.9	109.1	108.6	109.2
Girdles, manmade blend		120.4	121.4	121.4	121.3	121.4	120.9	120.5	120.8	120.5	120.2	119.5	119.4	119.0	119.1
Brassieres, cotton	Dec. 63	128.2	128.9	129.2	128.4	127.4	125.6	124.4	124.9	123.8	123.1	122.9	122.5	122.2	121.7
Hose, nylon, seamless		99.4	98.8	99.1	98.9	99.0	98.3	98.5	99.8	99.8	99.4	99.2	98.8	99.6	99.1
Anklets, cotton	Dec. 63	119.7	118.9	120.1	120.1	120.5	122.5	121.0	121.5	118.5	118.5	118.4	118.2	118.1	117.2
Gloves, fabric, nylon or cotton	Dec. 63	111.6	111.4	111.2	110.6	110.9	111.0	110.7	110.5	109.8	109.2	109.0	109.3	108.9	108.6
Handbags, rayon faille or plastic	Dec. 63	118.7	120.3	119.3	118.8	118.2	118.5	116.4	117.3	117.2	115.5	114.8	114.1	113.8	113.6
Girls':															
Raincoats, vinyl plastic or chiefly cotton	Dec. 63	(1)	(1)	(1)	(1)	114.8	118.9	118.1	125.6	124.4	121.7	120.8	(1)	(1)	120.9
Skirts, wool or wool blend		(1)	(1)	(1)	(1)	(1)	(1)	117.4	123.2	123.4	124.0	(2)	(1)	(1)	121.4

See footnotes at end of table.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
APPAREL AND UPKEEP—Continued															
Women's and girls'—Continued															
Girls' Continued															
Dresses, cotton		131.5	133.2	129.4	135.1	134.0	132.3	129.8	133.6	136.3	137.4	136.9	135.4	134.2	134.4
Slacks, cotton	Dec. 63	(1)	(1)	(1)	(1)	125.5	125.4	128.4	131.8	131.7	127.9	(2)	(1)	(1)	125.8
Slips, cotton blend	Dec. 63	107.9	108.0	107.3	107.5	108.1	107.8	108.0	108.0	108.6	108.5	107.7	108.0	108.1	107.5
Handbags	Dec. 63	117.1	118.3	117.4	115.7	115.1	114.9	113.7	114.2	114.7	111.1	108.9	108.3	108.2	109.3
Footwear		147.5	147.7	147.6	147.2	146.3	145.0	144.4	144.4	143.9	143.3	142.3	141.5	139.9	140.3
Men's:															
Shoes, street, oxford		145.2	145.6	145.3	144.7	143.8	142.3	141.3	142.6	142.1	141.5	140.1	138.7	137.5	138.4
Shoes, work, high		143.4	143.4	142.9	142.6	142.1	141.4	140.9	139.8	139.5	139.0	138.4	138.1	137.3	136.7
Women's:															
Shoes, street, pump		155.5	156.8	157.3	157.3	155.5	151.6	151.8	152.7	152.5	152.0	150.8	149.9	147.3	148.6
Shoes, evening, pump	Dec. 63	127.5	126.6	126.7	125.8	125.0	124.8	124.2	123.2	122.9	122.9	122.3	121.8	121.0	120.3
Shoes, casual, pump	Dec. 63	137.2	138.3	138.7	138.3	136.3	135.7	134.2	134.0	133.4	132.0	129.6	128.9	126.8	127.7
Houseslippers, scuff	Dec. 63	128.2	128.1	127.7	127.7	128.2	127.8	128.0	127.5	127.1	126.6	126.4	125.4	123.9	124.7
Children's:															
Shoes, oxford		147.1	147.2	146.6	146.3	146.6	145.9	144.3	144.3	143.3	142.3	141.4	140.7	140.2	140.1
Sneakers, boys', oxford type	Dec. 63	122.9	123.2	122.6	122.0	120.7	120.0	119.6	119.5	119.3	119.1	118.9	118.1	116.9	117.2
Dress shoes, girls', strap	Dec. 63	138.6	138.3	138.3	137.5	138.0	136.6	136.6	136.4	135.7	134.6	134.1	133.1	130.6	131.5
Miscellaneous apparel:															
Diapers, cotton gauze		105.4	105.0	104.9	104.8	104.9	104.3	104.0	104.0	104.1	103.8	103.9	104.0	103.5	103.0
Yard goods, cotton		125.4	127.1	127.6	126.8	125.9	124.6	123.3	123.5	123.1	123.5	123.2	123.2	122.1	120.9
Apparel services:															
Drycleaning, men's suits and women's dresses		136.4	136.3	136.0	135.7	135.2	134.6	133.8	133.3	132.9	132.2	132.0	131.7	130.5	130.8
Automatic laundry service	Dec. 63	114.3	114.0	113.2	113.1	113.2	112.3	112.0	112.0	111.8	111.4	111.3	111.0	111.0	110.1
Laundry, men's shirts	Dec. 63	130.3	130.0	129.0	128.8	128.5	128.0	126.8	126.7	124.3	123.8	123.4	123.2	123.0	122.9
Tailoring charges, hem adjustment	Dec. 63	133.7	133.3	128.8	128.4	127.7	127.4	127.0	127.4	127.6	127.5	126.5	125.4	125.2	124.5
Shoe repairs, women's heel lift		126.9	126.8	126.5	126.3	125.5	125.0	124.6	123.7	123.6	122.7	123.1	121.3	121.1	121.3
TRANSPORTATION		131.4	130.6	129.9	128.9	127.1	127.3	127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.2
Private		127.2	126.7	125.9	124.9	123.0	123.3	123.3	123.4	122.7	122.8	120.5	121.3	121.4	121.3
Automobiles, new		103.7	103.8	104.1	104.3	104.4	104.6	104.7	104.9	105.1	104.2	99.5	101.0	101.6	102.4
Automobiles, used		131.8	132.0	127.5	121.1	117.6	117.8	120.7	123.9	124.9	125.8	121.4	125.4	127.0	125.3
Gasoline, regular and premium		118.7	117.6	118.6	119.2	115.3	116.7	116.6	116.9	116.3	118.0	117.7	118.0	117.7	117.0
Motor oil, premium		143.7	143.0	142.8	142.6	142.3	141.4	140.7	140.2	140.1	139.6	139.1	138.7	138.1	137.5
Tires, new, tubeless		119.0	118.0	118.6	118.6	119.4	118.5	118.2	118.2	118.0	117.4	117.0	116.0	116.3	116.2
Auto repairs and maintenance		144.3	143.5	142.9	142.1	141.5	140.2	139.2	137.3	136.6	136.1	135.2	134.5	133.8	133.8
Auto insurance rates		183.7	181.9	179.5	175.6	176.4	176.0	173.4	171.5	164.6	163.7	163.2	160.3	159.0	160.2
Auto registration		140.9	140.9	140.9	140.9	140.3	140.3	140.3	134.2	134.2	134.2	134.2	134.2	134.2	133.6
Public		170.8	167.8	166.6	165.8	165.8	165.4	165.1	153.0	151.1	150.3	150.3	149.7	149.5	148.9
Local transit fares		190.9	185.8	185.2	183.9	183.8	183.8	183.3	163.2	163.0	161.7	161.7	160.8	160.5	160.4
Taxicab fares	Dec. 63	135.9	135.9	131.5	131.5	131.5	131.5	131.5	131.5	127.5	127.5	127.5	127.5	127.5	126.7
Railroad fares, coach		121.5	121.5	121.1	121.1	121.1	117.2	117.2	117.2	115.5	115.1	115.1	114.9	114.9	114.0
Airplane fares, chiefly coach	Dec. 63	117.9	117.9	117.8	117.8	117.8	117.4	117.4	117.4	111.6	111.6	111.6	112.1	112.1	110.6
Bus fares, intercity	Dec. 63	130.1	130.1	128.6	128.6	128.6	127.9	127.9	127.9	127.0	127.0	127.0	122.9	122.9	122.4
HEALTH AND RECREATION		144.3	143.7	142.9	142.3	141.4	140.7	140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.6
Medical care		165.8	164.7	163.6	162.8	161.6	160.1	159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.0
Drugs and prescriptions		102.0	101.6	101.4	100.9	100.3	100.0	99.7	99.6	99.6	99.4	99.3	99.3	99.2	99.2
Over-the-counter items	Dec. 63	110.5	109.7	109.2	108.6	107.8	107.2	107.2	107.1	107.1	106.9	106.9	107.0	106.9	106.9
Multiple vitamin concentrates	Dec. 63	92.7	92.6	92.7	92.0	91.7	90.8	92.3	92.8	92.4	92.5	92.4	92.4	92.1	92.4
Aspirin compounds	Dec. 63	112.0	109.8	109.2	108.1	107.3	107.4	106.2	106.6	106.2	106.1	105.5	106.8	106.4	106.2
Liquid tonics	Dec. 63	101.7	101.8	101.9	101.9	101.5	101.2	101.3	101.3	101.3	100.8	100.9	100.9	100.8	101.0
Adhesive bandages, package	Dec. 63	125.0	122.7	121.4	119.8	119.7	118.2	117.8	117.7	117.1	117.4	117.0	116.5	116.7	116.9
Cold tablets or capsules	Dec. 63	112.7	112.7	112.7	112.6	112.2	111.5	111.0	110.5	110.0	109.6	109.1	109.2	109.1	109.2
Cough syrup	Dec. 63	117.5	117.2	116.4	116.0	113.5	113.0	113.4	112.9	114.7	113.7	115.1	114.8	114.8	114.5
Prescriptions		90.7	90.6	90.5	90.3	89.7	89.7	89.3	89.1	89.0	89.0	88.8	88.7	88.6	88.6
Anti-infectives	Mar. 60	63.3	63.2	63.1	63.0	62.8	63.0	62.8	62.8	62.8	63.0	62.9	62.9	62.8	62.8
Sedatives and hypnotics	Mar. 60	114.5	114.0	114.2	113.7	112.1	112.0	110.6	110.4	109.6	108.9	107.8	107.6	107.1	107.2
Ataractics	Mar. 60	90.7	90.8	90.7	90.7	90.0	90.0	90.0	89.8	89.8	89.8	89.8	89.7	89.9	89.8
Anti-spasmodics	Mar. 60	102.8	102.6	102.4	102.2	101.7	101.6	101.5	101.3	101.3	101.3	101.2	101.0	101.0	101.1
Cough preparations	Mar. 60	118.2	118.1	118.0	118.1	117.1	115.2	112.7	112.0	111.7	111.4	111.1	110.8	110.2	109.4
Cardiovasculars and antihypertensives	Mar. 60	100.4	100.4	100.4	100.0	99.0	98.8	98.3	98.0	98.0	97.9	97.7	97.6	97.1	97.1
Analgesics, internal	Mar. 67	105.4	105.4	105.2	105.3	104.7	105.0	104.3	103.3	103.2	103.1	103.1	103.1	102.9	102.8
Anti-obesity	Mar. 67	108.1	107.2	107.2	106.0	105.8	105.5	104.8	104.3	104.3	104.2	103.6	103.3	102.9	103.1
Hormones	Mar. 67	94.7	94.2	94.2	93.6	93.9	93.6	93.6	94.2	93.9	94.3	93.9	93.9	93.8	94.3
Professional services:															
Physicians' fees		167.8	167.3	165.6	164.3	163.7	151.6	160.7	160.0	159.0	158.3	158.0	156.8	156.0	155.4
Family doctor, office visits		171.3	170.8	168.3	167.3	166.6	164.0	163.1	162.4	161.0	160.6	160.3	158.7	158.3	157.2
Family doctor, house visits		176.0	175.6	173.6	172.5	171.7	169.0	167.9	167.6	166.2	165.9	165.6	163.9	163.8	163.3
Obstetrical cases		162.2	161.8	161.1	159.2	159.0	157.6	155.9	155.0	154.9	153.9	153.2	152.8	150.1	150.2
Pediatric care, office visits	Dec. 63	151.3	151.4	151.3	148.7	148.5	147.7	146.5	145.9	145.5	144.2	144.1	142.8	140.9	141.4
Psychiatrist, office visits	Dec. 63	135.3	135.0	135.0	134.7	134.6	133.7	133.0	132.6	132.6	131.7	131.7	130.9	129.3	129.1

See footnotes at end of table.

24. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
HEALTH AND RECREATION—Continued															
Medical care—Continued															
Professional services—Continued															
Physicians' fees—Continued															
Herniorrhaphy, adult	Dec. 63	130.7	130.6	129.6	128.7	127.5	126.7	126.3	125.4	125.2	124.6	124.6	124.3	124.3	123.9
Tonsillectomy and adenoidectomy		157.5	156.7	156.1	154.2	153.8	152.6	152.3	151.6	151.3	149.3	149.1	149.0	148.1	148.2
Dentists' fees		152.8	151.9	151.2	150.7	148.7	148.4	148.0	147.6	147.2	146.9	146.0	145.5	144.9	143.9
Fillings, adult, amalgam, one surface		154.9	154.1	153.3	152.5	150.6	150.3	149.8	148.7	148.3	148.3	147.1	146.4	145.7	144.9
Extractions, adult		150.1	149.7	148.9	148.9	146.1	145.9	146.0	147.0	146.7	145.9	145.3	144.7	144.5	143.1
Dentures, full upper	Dec. 63	134.8	133.6	133.2	132.7	131.7	131.3	130.6	130.2	129.7	129.5	128.9	128.8	128.3	127.4
Other professional services:															
Examination, prescription, and dispensing of eyeglasses		138.2	137.8	136.9	136.7	136.3	135.7	134.6	133.9	133.8	132.8	132.4	132.2	131.7	131.1
Routine laboratory tests	Dec. 63	121.9	121.7	121.3	121.2	120.8	119.8	119.6	119.5	119.4	118.5	118.5	118.6	118.0	117.4
Hospital service charges:															
Daily service charges		289.1	284.4	283.1	282.3	279.0	275.6	271.6	267.9	265.4	263.8	261.9	259.9	256.7	256.0
Semiprivate rooms		285.9	281.1	279.8	279.1	275.6	271.9	268.0	264.1	261.7	260.1	258.4	25 .3	253.0	252.1
Private rooms		277.9	273.5	272.3	271.4	268.7	265.9	261.8	258.7	256.1	254.7	252.6	250.8	247.9	247.5
Operating room charges	Dec. 63	183.6	181.7	180.9	180.3	177.7	175.4	172.8	170.9	170.6	170.9	168.7	167.6	166.4	165.2
X-ray, diagnostic series, upper G.I.	Dec. 63	131.4	131.4	129.4	128.1	127.7	125.4	124.7	124.7	124.5	124.8	124.6	123.2	122.7	122.7
Personal care		130.6	130.2	130.3	129.8	129.6	129.0	128.5	128.1	127.8	127.3	127.3	126.8	126.6	126.2
Toilet goods		113.5	113.3	113.3	113.0	112.9	112.4	112.0	111.6	111.8	111.6	111.7	111.4	111.2	110.7
Toothpaste, standard dentifrice		113.9	114.4	114.4	114.7	113.9	114.3	114.1	114.6	114.7	114.4	113.8	113.4	112.9	113.7
Toilet soap, hard milled		128.3	127.0	126.2	124.3	125.6	124.3	123.0	123.4	124.8	125.1	126.3	123.3	125.1	124.1
Hand lotions, liquid	Dec. 63	109.5	111.2	111.5	117.3	110.5	110.0	109.2	109.1	109.7	110.7	111.1	111.2	110.4	108.6
Shaving cream, aerosol		102.0	101.3	102.1	102.3	102.2	102.1	102.1	101.9	101.6	102.0	102.1	102.1	101.4	102.0
Face powder, pressed		131.9	131.4	131.6	131.0	130.8	129.1	128.1	127.6	127.5	127.2	126.8	126.6	126.1	125.0
Deodorants, cream or roll-on	Dec. 63	96.4	95.9	95.8	95.9	96.1	96.1	96.0	94.5	95.0	95.1	95.3	95.5	95.0	94.9
Cleansing tissues		117.0	116.4	116.4	116.0	115.5	114.4	113.8	112.5	111.8	109.2	108.4	109.3	109.3	108.8
Home permanent refills		98.8	98.3	98.4	98.3	98.6	98.6	98.6	98.7	98.6	98.5	99.2	99.1	98.8	98.0
Personal care services		151.9	151.2	151.3	150.5	150.1	149.5	148.9	148.5	147.5	146.7	146.5	145.8	145.5	145.2
Men's haircuts		162.5	161.0	161.0	159.7	159.1	158.7	158.0	157.8	156.4	155.2	154.8	154.5	154.7	153.7
Beauty shop services		141.2	141.0	141.2	140.9	140.6	140.0	139.2	138.8	138.0	137.7	137.5	136.6	136.0	136.1
Women's haircuts	Dec. 63	125.8	125.4	126.4	126.3	126.1	125.4	125.3	125.2	124.0	123.4	123.2	121.9	121.2	122.0
Shampoo and wave sets, plain		159.2	159.0	159.0	158.6	158.3	157.5	156.8	156.3	155.3	154.9	154.6	153.6	152.8	152.7
Permanent waves, cold		109.8	110.0	109.6	109.4	109.0	108.9	107.5	107.2	107.2	107.1	107.0	106.9	106.7	106.4
Reading and recreation		136.6	136.1	135.2	134.4	133.6	133.2	133.1	132.7	132.3	132.0	131.6	131.2	130.7	130.5
Recreational goods	Dec. 63	100.1	100.0	99.9	99.6	99.4	99.2	99.1	99.1	99.2	99.1	99.0	98.8	98.7	98.6
TV sets, portable and console		79.9	80.1	80.1	80.0	79.9	79.9	80.0	80.2	80.3	80.2	80.0	79.7	79.8	80.1
TV replacement tubes	Dec. 63	120.6	119.3	118.3	117.5	117.3	117.3	116.6	116.3	116.3	115.9	115.7	115.4	115.6	115.5
Radios, portable and table model		76.6	76.6	76.6	76.5	76.0	76.1	76.4	76.5	76.5	76.6	76.9	76.5	76.5	76.5
Tape recorders, portable	Dec. 63	89.8	89.9	90.4	90.3	90.2	90.2	90.0	90.1	91.2	91.4	91.5	91.4	91.5	91.3
Phonograph records, stereophonic	Dec. 63	98.1	98.2	98.3	97.8	98.1	97.9	98.0	98.0	98.0	98.1	97.6	97.7	97.9	97.2
Movie cameras, Super 8, zoom lens	Dec. 63	82.2	82.3	82.0	81.4	81.3	81.6	82.1	82.3	83.4	83.1	83.5	83.4	83.5	84.0
Film, 35mm, color	Dec. 63	100.1	100.1	100.0	99.7	99.7	99.7	99.1	99.1	99.1	99.4	99.6	99.2	99.1	99.0
Bicycle, boys'	Dec. 63	110.7	110.4	110.5	110.8	111.4	111.2	110.7	110.4	110.0	109.7	109.9	109.5	109.7	109.0
Tricycles	Dec. 63	113.6	113.7	113.1	111.6	111.2	112.0	112.0	111.6	111.4	111.9	111.6	111.2	109.4	109.6
Recreational services	Dec. 63	137.1	136.9	135.9	135.0	134.1	133.7	133.9	133.2	132.6	132.1	131.7	131.1	130.1	129.9
Indoor movie admissions		221.4	220.0	217.9	215.4	212.0	210.5	211.7	210.3	208.3	207.0	206.5	204.2	200.2	200.6
Adult		216.8	215.6	212.8	210.9	207.7	206.1	207.3	205.4	203.2	201.9	201.6	198.8	194.4	195.5
Children's		237.0	235.0	234.8	230.6	226.7	225.4	226.9	227.1	225.4	224.5	223.2	222.1	219.6	217.6
Drive-in movie admissions, adult	Dec. 63	172.3	171.6	168.9	168.1	167.5	167.0	165.6	165.5	165.0	164.5	164.1	163.5	161.9	159.9
Bowling fees, evening	Dec. 63	114.6	115.7	115.2	115.2	114.8	115.0	115.3	113.7	113.6	112.1	110.9	110.3	110.4	111.1
Golf greens fees	Dec. 63	145.5	145.1	141.5	139.3	(2)	(2)	(2)	(2)	(2)	135.5	135.9	135.8	134.7	131.8
TV repairs, picture tube replacement		97.7	97.6	98.6	98.7	98.9	99.5	100.2	100.2	100.0	101.4	101.0	101.0	101.0	101.7
Film developing, black and white	Dec. 63	116.7	116.4	117.7	117.6	117.3	117.7	117.4	117.7	117.9	117.9	118.3	118.4	118.9	119.1
Reading and education:															
Newspapers, street sale and delivery [7]		166.8	163.9	161.5	160.4	160.4	159.8	160.2	158.2	156.7	156.4	155.9	155.8	155.2	154.7
Piano lessons, beginner	Dec. 63	129.0	128.4	128.2	128.2	127.8	127.7	127.6	127.3	126.7	126.5	126.1	123.8	122.8	123.7
Other goods and services		137.3	136.7	136.1	135.6	134.8	134.3	133.9	133.5	133.1	132.2	131.3	130.1	129.1	129.0
Tobacco products		159.7	158.1	156.7	156.4	155.0	154.9	154.1	153.8	153.1	151.5	150.6	148.7	146.7	146.5
Cigarettes, nonfilter tip, regular size		167.9	166.0	164.4	164.1	162.8	162.7	161.8	161.4	160.7	158.9	158.0	155.8	153.7	153.6
Cigarettes, filter tip, king size	Mar. 59	160.2	158.5	157.2	156.8	154.9	154.8	154.0	153.5	152.6	151.0	150.0	148.1	146.2	145.7
Cigars, domestic, regular size		108.6	108.6	108.6	108.6	108.7	108.7	109.0	110.0	109.9	109.4	109.6	108.7	107.1	107.6
Alcoholic beverages		123.2	123.2	123.1	122.5	122.0	121.4	121.0	120.6	120.4	120.0	119.1	118.2	117.7	117.8
Beer		118.2	118.3	118.5	118.2	117.7	116.9	116.5	116.5	116.6	116.3	116.4	115.3	114.8	114.8
Whiskey, spirit blended and straight bourbon		113.1	112.7	112.5	111.8	111.6	111.3	111.2	111.5	111.4	111.3	110.4	110.1	109.8	109.9
Wine, dessert and table	Dec. 63	119.8	119.6	119.4	118.9	117.4	116.8	116.5	115.2	114.5	113.6	112.0	110.6	110.2	110.5
Beer, away from home	Dec. 63	129.5	129.6	129.3	128.4	128.0	127.6	127.1	125.9	125.6	125.0	123.0	122.3	121.8	121.8
Financial and miscellaneous personal expenses:															
Funeral services, adult	Dec. 63	119.9	119.6	119.3	119.0	118.6	118.1	117.7	117.4	117.3	116.9	116.5	115.9	115.5	115.2
Bank service charges, checking accounts	Dec. 63	110.2	110.3	110.0	110.0	110.1	110.0	110.2	110.3	109.9	109.1	108.3	103.4	108.2	108.3
Legal services, short form will	Dec. 63	149.2	149.0	146.1	145.6	145.1	142.7	142.3	141.2	139.5	139.5	138.8	137.8	135.0	134.7

[1] Priced only in season.
[2] Not available.
[3] This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.
[4] This item is a replacement for dining room suites, which was discontinued after March 1970.
[5] Item discontinued.
[6] This item is a replacement for box springs which was discontinued after April 1970.
[7] June 1970 index revised.

NOTE: Monthly data for individual nonfood items not available for 1968.

25. Consumer Price Index[1]—U.S. city average, and selected areas

[1957–59=100 unless otherwise specified]

Area[2]	1970							1969						Annual avg.
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1969
All items														
U.S. city average[3]	135.7	135.2	134.6	134.0	133.2	132.5	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.7
Atlanta, Ga.	(4)	133.6	(4)	(4)	131.9	(4)	(4)	129.9	(4)	(4)	128.6	(4)	(4)	126.7
Baltimore, Md.	(4)	135.2	(4)	(4)	133.5	(4)	(4)	131.9	(4)	(4)	130.4	(4)	(4)	128.3
Boston, Mass.	139.5	137.9	(4)	137.9	(4)	(4)	136.1	(4)	(4)	134.7	(4)	(4)	132.1	131.8
Buffalo, N.Y. (Nov. 1963=100)	(4)	(4)	127.0	(4)	(4)	125.3	(4)	(4)	123.2	(4)	(4)	121.2	(4)	120.5
Chicago, Ill.–Northwestern Ind.	132.3	131.5	131.1	130.2	129.9	129.3	129.1	128.3	127.7	126.9	127.2	126.1	125.3	124.9
Cincinnati, Ohio–Kentucky	(4)	131.2	(4)	(4)	129.2	(4)	(4)	127.7	(4)	(4)	125.5	(4)	(4)	124.6
Cleveland, Ohio	(4)	134.3	134.3	(4)	(4)	132.3	(4)	(4)	129.5	(4)	(4)	127.3	(4)	126.3
Dallas, Tex. (Nov. 1963=100)	(4)	(4)	127.1	(4)	(4)	125.6	(4)	(4)	123.7	(4)	(4)	121.2	(4)	120.3
Detroit, Mich.	135.5	135.2	134.9	133.8	133.1	132.2	131.1	130.8	129.8	129.2	128.6	128.5	127.6	127.1
Honolulu, Hawaii (Dec. 1963=100)	(4)	(4)	(4)	(4)	122.0	(4)	(4)	119.7	(4)	(4)	118.1	(4)	(4)	117.0
Houston, Tex.	133.7	132.9	(4)	132.9	(4)	(4)	130.9	(4)	(4)	129.8	(4)	(4)	127.0	127.0
Kansas City, Mo.–Kansas	(4)	137.9	(4)	(4)	134.6	(4)	(4)	133.2	(4)	(4)	131.4	(4)	(4)	130.1
Los Angeles–Long Beach, Calif.	135.1	133.9	133.8	133.5	132.2	131.6	131.2	131.1	130.0	130.1	129.6	128.9	128.6	128.0
Milwaukee, Wis.	(4)	130.0	130.0	(4)	(4)	128.5	(4)	(4)	127.0	(4)	(4)	123.9	(4)	123.6
Minneapolis-St. Paul, Minn.	136.7	135.1	(4)	135.1	(4)	(4)	132.8	(4)	(4)	130.3	(4)	(4)	128.0	127.4
New York, N.Y.–Northeastern N.J.	142.1	141.6	140.7	140.1	139.1	138.1	137.0	136.0	134.6	134.1	133.5	132.5	132.1	131.8
Philadelphia, Pa.–N.J.	137.4	137.0	136.5	135.7	135.4	134.1	132.9	132.2	131.7	131.2	131.0	130.2	129.2	128.9
Pittsburgh, Pa.	134.6	132.4	(4)	132.4	(4)	(4)	129.4	(4)	(4)	128.5	(4)	(4)	127.7	127.0
Portland, Oreg.–Wash.[5]	(4)	(4)	(4)	133.4	(4)	(4)	130.7	(4)	(4)	130.1	(4)	(4)	128.4	128.4
St. Louis, Mo.–Ill.	(4)	134.1	(4)	(4)	132.4	(4)	(4)	130.7	(4)	(4)	129.2	(4)	(4)	127.5
San Diego, Calif. (Feb. 1965=100)	(4)	(4)	120.9	(4)	(4)	118.6	(4)	(4)	117.0	(4)	(4)	116.0	(4)	115.1
San Francisco–Oakland, Calif.	(4)	137.5	(4)	(4)	136.1	(4)	(4)	134.5	(4)	(4)	132.8	(4)	(4)	131.1
Scranton, Pa.[5]	(4)	(4)	136.9	(4)	(4)	134.4	(4)	(4)	127.3	(4)	(4)	130.5	(4)	129.2
Seattle, Wash.	(4)	133.9	133.9	(4)	(4)	132.2	(4)	(4)	130.0	(4)	(4)	129.5	(4)	128.3
Washington, D.C.–Md.–Va.	(4)	136.7	136.7	(4)	(4)	134.6	(4)	(4)	132.0	(4)	(4)	130.8	(4)	129.5
Food														
U.S. city average[3]	133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5
Atlanta, Ga.	131.4	131.1	130.0	130.6	130.5	130.7	129.0	128.4	126.9	126.5	126.7	126.3	124.4	123.8
Baltimore, Md.	137.6	136.7	136.5	135.9	136.2	135.4	134.9	134.1	132.3	131.5	131.8	130.8	130.1	128.8
Boston, Mass.	138.1	137.0	136.6	135.9	135.4	135.0	134.3	133.1	131.6	131.2	131.4	131.8	130.2	129.3
Buffalo, N.Y. (Nov. 1963=100)	129.5	128.6	128.1	128.4	127.3	127.0	125.4	125.1	122.8	121.9	121.8	122.5	122.4	120.6
Chicago, Ill.–Northwestern Ind.	133.8	133.6	133.1	132.6	133.0	133.2	132.8	131.3	129.4	128.3	130.2	130.5	129.0	127.2
Cincinnati, Ohio–Kentucky	130.5	129.7	129.1	128.6	127.9	127.8	127.2	126.6	125.1	124.1	123.6	123.2	123.3	122.1
Cleveland, Ohio	132.1	131.2	130.8	129.7	129.3	128.4	129.0	128.5	125.7	125.0	125.1	125.2	123.3	123.2
Dallas, Tex. (Nov. 1963=100)	125.9	125.8	126.0	125.5	125.5	125.9	125.0	124.2	122.8	121.7	122.0	121.9	120.6	119.8
Detroit, Mich.	133.3	132.2	132.1	131.2	130.9	130.2	129.8	129.3	126.8	126.1	126.5	127.3	126.5	124.3
Honolulu, Hawaii (Dec. 1963=100)	123.5	123.8	123.2	123.4	123.4	122.9	123.0	120.8	119.5	119.7	119.1	118.0	116.9	117.4
Houston, Tex.	134.3	133.3	133.4	133.8	132.7	133.3	132.3	131.2	129.2	128.7	129.2	129.0	127.7	126.9
Kansas City, Mo.–Kansas	138.3	136.9	136.8	136.4	135.9	135.8	135.1	134.4	132.9	131.2	131.9	131.3	130.7	129.4
Los Angeles–Long Beach, Calif.	128.9	127.8	128.1	127.4	126.7	127.2	126.2	125.8	124.7	124.0	124.0	123.9	124.0	122.6
Milwaukee, Wis.	130.0	129.4	129.4	129.3	130.2	130.1	129.5	128.4	127.8	127.6	127.9	127.6	126.5	125.2
Minneapolis-St. Paul, Minn.	132.3	131.4	131.3	131.2	131.2	130.6	129.5	128.2	127.2	126.5	125.9	126.4	125.4	123.7
New York, N.Y.–Northeastern N.J.	137.9	136.8	136.0	135.7	135.1	134.7	133.8	132.9	130.6	129.6	129.1	128.7	128.1	127.1
Philadelphia, Pa.–N.J.	133.1	132.4	132.3	131.5	132.0	132.0	130.7	129.7	128.0	127.0	127.2	127.2	126.0	125.5
Pittsburgh, Pa.	129.6	128.7	128.8	128.3	128.2	128.0	127.5	127.1	125.7	123.3	123.2	123.9	124.2	122.4
Portland, Oreg.–Wash.[5]	------	------	------	128.5	------	------	126.7	------	------	124.4	------	------	125.2	124.0
St. Louis, Mo.–Ill.	137.7	136.7	136.3	136.5	136.6	137.4	136.6	135.5	133.5	132.4	132.6	131.2	129.8	129.5
San Diego, Calif. (Feb. 1965=100)	123.0	122.0	122.3	121.3	120.8	121.3	120.6	120.0	119.1	117.8	118.3	118.6	118.7	117.0
San Francisco–Oakland, Calif.	130.5	129.1	129.0	128.8	128.2	128.7	128.2	127.2	126.2	125.6	124.9	124.9	125.9	123.8
Scranton, Pa.	------	------	131.3	------	------	131.3	------	------	131.9	------	------	127.5	------	125.0
Seattle, Wash.	130.6	130.3	130.6	130.1	128.5	129.2	127.8	127.6	126.2	125.2	125.9	126.2	125.8	124.5
Washington, D.C.–Md.–Va.	137.6	137.1	136.2	136.6	135.7	136.2	134.8	133.5	131.2	130.5	131.6	132.5	131.3	129.5

[1] See table 23. Indexes measure time-to-time changes in prices. They do not indicate whether it costs more to live in one area than in another.

[2] The areas listed include not only the central city but the entire urban portion of the Standard Metropolitan Statistical Area, as defined for the 1960 Census of Population; except that the Standard Consolidated Area is used for New York and Chicago.

[3] Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places beginning January 1966).

[4] All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

[5] Old series.

26. Wholesale price indexes,[1] by group and subgroup of commodities

[1957–59=100 unless otherwise specified][2]

Code	Commodity Group	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
	ALL COMMODITIES	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.0
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS	119.3	117.5	117.0	117.6	118.8	118.7	118.2	116.4	115.7	114.3	114.3	114.6	115.5	113.5
	INDUSTRIAL COMMODITIES	116.9	116.7	116.6	116.2	115.8	115.5	115.1	114.6	114.2	113.8	113.2	112.8	112.4	112.7
	FARM PRODUCTS, AND PROCESSED FOODS AND FEEDS														
01	**Farm products**	113.1	111.3	111.0	111.3	114.3	113.7	112.5	111.7	111.1	107.9	108.4	108.9	110.5	108.5
01-1	Fresh and dried fruits and vegetables	112.6	122.2	123.5	112.7	118.2	117.2	116.6	112.4	125.3	101.3	103.4	106.7	103.1	111.0
01-2	Grains	89.2	89.2	88.4	87.8	85.5	85.9	85.9	82.9	81.7	84.8	83.4	81.9	83.7	83.3
01-3	Livestock	126.2	123.0	122.2	124.8	129.6	124.9	117.3	120.2	116.6	118.7	119.2	123.6	126.8	118.3
01-4	Live poultry	81.9	77.9	83.7	82.8	90.8	87.1	94.8	86.9	86.3	85.3	89.0	92.3	90.2	89.8
01-5	Plant and animal fibers	66.1	65.7	65.6	65.4	64.9	65.4	65.3	65.7	66.0	66.1	66.4	66.9	67.7	67.1
01-6	Fluid milk	139.7	139.6	139.5	141.1	139.7	140.8	140.5	138.3	137.6	136.8	135.6	135.1	134.9	134.8
01-7	Eggs	111.2	85.3	79.7	94.9	120.1	136.9	152.2	155.8	139.8	113.8	122.5	100.5	117.0	112.9
01-8	Hay, hayseeds, and oilseeds	116.8	112.6	111.1	109.8	106.3	106.3	107.7	105.1	103.4	101.2	105.7	107.3	111.3	109.2
01-9	Other farm products	116.5	114.9	115.0	114.7	114.8	115.2	116.3	113.1	115.9	116.7	110.6	109.5	106.9	109.1
02	**Processed foods and feeds**	126.6	124.8	124.1	124.9	124.9	125.2	125.1	122.6	121.8	121.6	121.3	121.5	122.0	119.8
02-1	Cereal and bakery products	125.8	124.6	124.6	124.6	123.7	123.3	122.3	122.0	121.9	121.2	120.4	120.1	119.9	120.2
02-2	Meats, poultry, and fish	126.3	123.7	122.5	124.9	127.1	124.9	125.8	121.9	120.5	120.2	122.9	124.5	127.5	119.5
02-3	Dairy products	135.7	135.4	135.4	135.1	133.1	134.1	133.9	133.9	131.2	130.7	133.4	133.0	133.0	131.9
02-4	Processed fruits and vegetables	118.9	118.5	118.1	117.5	116.5	117.3	116.9	116.4	116.3	116.0	116.6	116.8	116.6	115.7
02-5	Sugar and confectionery	132.3	130.4	129.4	128.7	127.4	127.7	129.1	127.1	127.9	127.7	127.2	127.2	122.3	123.6
02-6	Beverages and beverage materials	120.4	120.3	120.3	118.8	118.4	118.3	117.4	116.1	116.0	115.0	113.1	112.6	112.6	112.9
02-71	Animal fats and oils	111.3	111.5	116.8	118.8	133.7	115.7	111.0	115.6	123.0	118.3	104.0	105.0	96.4	100.3
02-72	Crude vegetable oils	103.0	105.3	106.6	114.7	110.7	99.5	86.4	86.1	97.0	88.4	79.8	80.0	80.0	83.5
02-73	Refined vegetable oils	103.8	102.8	106.4	107.7	111.9	99.8	97.8	97.9	91.1	88.9	85.0	84.7	89.4	90.3
02-74	Vegetable oil end products	113.2	113.2	113.1	113.6	112.4	107.5	107.5	108.0	106.5	104.7	102.1	102.1	102.1	103.5
02-8	Miscellaneous processed foods	128.2	126.7	124.1	125.8	127.1	127.4	126.5	126.4	127.2	131.6	121.2	119.8	119.5	121.5
02-9	Manufactured animal feeds	127.4	120.8	119.4	121.4	119.0	131.3	131.7	121.8	119.5	119.9	119.3	118.2	118.7	118.2
	INDUSTRIAL COMMODITIES														
03	**Textile products and apparel**	109.2	109.3	109.3	109.3	109.5	109.4	109.5	109.2	109.2	109.1	109.0	108.7	107.7	108.0
03-1	Cotton products	105.8	105.9	105.8	105.8	105.8	106.1	106.1	106.1	106.0	105.8	105.9	105.7	105.3	105.2
03-2	Wool products	102.6	102.8	103.8	104.0	104.4	104.3	104.3	104.3	104.6	104.5	105.0	104.8	105.0	104.6
03-3	Manmade fiber textile products	88.4	89.0	89.5	89.9	90.4	91.0	91.5	91.1	91.5	91.6	92.1	92.7	92.6	92.2
03-41	Silk yarns	201.0	199.5	204.8	201.3	194.2	196.3	193.5	191.1	184.6	183.9	181.2	177.1	168.2	169.7
03-5	Apparel	118.4	118.4	118.0	117.9	117.9	117.5	117.2	116.9	116.7	116.5	116.2	115.8	113.9	114.5
03-6	Textile housefurnishings	109.8	109.7	108.7	108.6	108.6	109.0	109.1	108.1	108.0	108.0	107.3	104.7	104.2	106.7
03-7	Miscellaneous textile products	125.5	124.3	125.6	121.4	126.5	124.3	129.0	127.8	129.6	127.2	121.4	119.6	120.3	122.8
04	**Hides, skins, leather, and related products**	127.1	127.3	127.9	128.5	126.8	126.7	126.6	126.5	126.8	127.4	128.2	126.4	126.4	125.8
04-1	Hides and skins	90.8	93.8	101.8	106.6	99.4	101.1	102.8	108.9	110.4	118.0	128.7	123.1	123.0	116.9
04-2	Leather	119.8	119.8	120.4	120.4	118.2	117.3	119.6	119.7	119.6	120.3	121.7	121.0	121.2	119.9
04-3	Footwear	137.9	137.9	137.8	138.4	136.9	136.9	135.9	135.0	135.5	135.2	134.9	132.7	132.7	133.2
04-4	Other leather and related products	121.0	120.9	120.4	120.0	119.9	119.8	119.2	118.5	118.6	118.4	117.9	117.6	117.5	116.9
05	**Fuels and related products and power**	108.9	108.6	109.1	107.5	106.3	106.4	105.6	106.1	105.5	105.4	104.7	104.7	105.0	104.6
05-1	Coal	155.5	152.8	146.9	145.9	133.4	131.7	125.4	124.6	123.5	120.6	115.9	115.5	115.4	116.2
05-2	Coke	141.0	139.6	139.6	139.6	126.9	126.9	126.9	126.9	126.9	126.9	120.3	120.3	120.3	122.0
05-3	Gas fuels (Jan. 1958=100)	137.0	136.3	136.1	136.2	135.0	135.2	132.4	131.8	128.8	128.7	123.0	121.8	121.6	124.5
05-4	Electric power (Jan. 1958=100)	104.8	104.3	104.2	103.7	103.6	103.6	103.4	103.4	103.4	103.7	103.5	102.4	102.5	102.7
05-61	Crude petroleum	103.3	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	103.7
05-7	Petroleum products, refined	102.4	102.2	104.2	101.3	100.8	101.2	101.0	102.2	101.6	101.6	101.8	102.5	103.2	101.8
06	**Chemicals and allied products**	100.9	100.5	100.6	100.4	100.0	99.5	99.1	98.8	98.9	98.6	98.9	98.7	98.2	98.3
06-1	Industrial chemicals	98.8	98.0	98.2	97.9	97.3	97.7	97.9	97.8	97.8	97.6	98.2	98.2	97.7	97.7
06-21	Prepared paint	122.8	122.8	122.8	122.8	122.8	122.0	121.7	120.3	120.3	120.3	119.2	119.2	119.2	119.2
06-22	Paint materials	91.5	91.8	93.2	92.6	92.6	92.8	93.4	93.4	93.1	93.9	93.3	93.3	93.2	92.8
06-3	Drugs and pharmaceuticals	95.0	94.8	94.7	94.7	95.0	94.6	94.5	94.6	94.2	94.0	94.0	93.8	93.8	93.8
06-4	Fats and oils, inedible	107.7	108.1	106.8	107.6	102.2	94.3	95.0	92.8	100.5	98.9	102.1	99.3	90.5	88.7
06-5	Agricultural chemicals and chem. products	91.0	91.8	91.7	92.4	92.0	91.4	87.6	86.7	86.7	86.3	87.4	88.4	88.6	89.8
06-6	Plastic resins and materials	80.8	80.2	80.6	81.1	81.2	80.3	80.0	80.1	79.6	80.2	81.0	80.7	80.2	80.7
06-7	Other chemicals and allied products	118.4	117.8	117.7	116.8	116.5	115.7	115.5	115.1	114.9	114.3	113.9	112.9	112.8	112.9
07	**Rubber and plastic products**	105.6	104.1	104.2	104.2	104.4	104.6	104.7	104.5	104.4	103.5	102.7	103.0	102.5	102.1
07-11	Crude rubber	86.0	86.8	87.1	87.5	87.6	89.4	89.3	88.1	88.7	89.7	90.6	92.5	90.7	89.4
07-12	Tires and tubes	107.5	101.7	101.7	101.7	101.7	101.7	101.7	101.7	101.7	100.6	99.2	99.2	98.4	98.2
07-13	Miscellaneous rubber products	116.5	115.7	115.7	114.3	114.3	114.3	114.0	113.4	113.0	111.7	110.7	110.8	111.0	110.8
07-21	Plastic construction products (Dec.1969=100)	96.8	97.4	97.6	98.7	99.1	99.1	99.8	100.0						
08	**Lumber and wood products**	119.6	120.2	121.0	120.1	119.5	120.2	121.6	122.5	123.9	122.6	123.2	124.0	125.3	132.0
08-1	Lumber	121.8	123.0	124.3	123.5	123.3	124.1	126.9	128.2	129.3	128.0	129.5	131.1	133.4	142.6
08-2	Millwork	131.1	131.1	131.1	130.8	130.7	130.7	131.5	131.7	133.2	133.9	134.4	135.1	135.6	132.2
08-3	Plywood	98.5	98.5	99.5	97.2	94.5	96.3	95.5	96.9	99.6	95.8	94.4	93.6	93.9	109.3
08-4	Other wood products (Dec. 1966=100)	119.4	119.3	119.3	119.3	119.5	119.5	119.5	118.4	116.7	116.7	116.5	116.8	115.6	114.8

See footnotes at end of table.

26. Wholesale price indexes,[1] by group and subgroup of commodities—Continued

[1957=100 unless otherwise specified][2]

Code	Commodity Group	1970							1969						Annual average 1969
		July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
	INDUSTRIAL COMMODITIES—Continued														
09	**Pulp, paper, and allied products**	112.5	112.2	112.3	112.5	112.1	111.8	111.1	109.5	109.3	109.0	108.8	108.7	108.4	108.2
09-1	Pulp, paper, and products, excluding building paper and board	113.3	113.0	113.0	113.2	112.9	112.5	111.8	110.1	109.9	109.6	109.3	109.2	108.9	108.6
09-11	Woodpulp	109.6	105.0	105.0	105.0	104.7	104.7	103.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0
09-12	Wastepaper	95.3	99.0	104.2	108.5	108.5	108.2	107.5	106.7	107.0	107.2	108.4	110.3	111.2	108.3
09-13	Paper	121.9	121.7	121.6	121.6	121.6	121.5	120.3	117.4	117.0	116.5	116.5	117.2	117.1	116.6
09-14	Paperboard	95.5	95.5	96.7	97.0	97.0	97.1	96.0	96.0	96.0	95.9	95.9	95.8	93.7	94.4
09-15	Converted paper and paperboard products	113.7	113.6	113.4	113.5	112.9	112.2	111.9	110.7	110.6	110.3	109.8	109.2	109.0	108.8
09-2	Building paper and board	93.2	93.3	93.3	93.4	92.9	93.0	93.4	93.9	94.4	94.6	95.1	95.2	95.9	97.1
10	**Metals and metal products**	129.0	129.1	128.7	127.8	127.0	126.1	124.9	123.8	122.9	122.4	121.7	120.4	118.7	118.9
10-1	Iron and steel	120.4	120.2	118.9	117.3	117.7	117.0	114.6	113.9	113.7	113.7	113.2	112.7	111.1	111.0
10-13	Steel mill products	122.8	122.0	120.5	118.7	118.4	117.7	115.5	116.4	116.4	116.4	115.5	115.4	113.6	113.7
10-2	Nonferrous metals	152.6	155.0	157.2	157.1	153.4	152.8	152.8	150.1	146.4	144.8	143.5	139.5	136.1	137.4
10-3	Metal containers	126.1	125.0	125.0	125.0	125.0	125.0	120.6	120.6	120.6	120.6	120.3	119.7	119.7	119.7
10-4	Hardware	126.3	125.9	125.4	125.2	124.9	124.7	124.2	123.0	122.7	122.2	121.0	120.6	120.5	120.5
10-5	Plumbing fixtures and brass fittings	125.1	124.7	124.0	123.2	122.8	122.8	122.8	122.8	122.2	120.8	120.2	119.4	119.4	118.7
10-6	Heating equipment	103.3	102.4	101.7	101.3	100.5	99.9	99.7	99.7	99.3	98.7	98.0	97.7	97.7	97.6
10-7	Fabricated structural metal products	119.1	118.1	117.3	116.4	116.0	114.6	114.0	113.7	113.6	113.4	112.8	112.6	112.0	111.5
10-8	Miscellaneous metal products	131.2	130.4	128.3	127.5	127.1	125.2	124.9	124.5	124.4	124.4	124.2	123.2	121.3	122.0
11	**Machinery and equipment**	124.7	124.1	123.7	123.4	123.1	122.8	122.5	121.9	121.0	120.5	119.9	119.1	119.0	119.0
11-1	Agricultural machinery and equipment	137.4	137.1	137.4	137.3	137.1	137.2	136.7	136.4	135.8	133.2	133.0	132.3	132.3	132.8
11-2	Construction machinery and equipment	141.2	141.0	140.9	140.8	140.6	140.3	140.2	139.8	138.6	137.7	136.1	134.9	134.8	135.5
11-3	Metalworking machinery and equipment	142.2	141.7	141.3	140.3	139.8	139.3	138.6	138.0	136.5	135.4	134.4	133.5	133.3	133.4
11-4	General purpose machinery and equipment	129.8	128.2	127.9	127.6	127.1	126.5	126.1	124.8	123.7	123.4	122.6	121.8	121.5	121.4
11-6	Special industry machinery and equipment (Jan. 1961=100)	135.1	134.3	134.0	133.6	133.6	133.4	133.3	132.8	130.6	130.2	129.6	129.2	129.2	128.7
11-7	Electrical machinery and equipment	108.6	108.2	107.5	107.3	107.2	106.9	106.8	106.2	106.0	105.6	105.4	104.7	104.8	104.8
11-9	Miscellaneous machinery	123.0	123.1	122.9	122.8	122.3	121.7	121.5	121.0	120.4	120.0	119.2	118.5	118.1	118.1
12	**Furniture and household durables**	108.8	108.6	108.3	108.3	108.1	107.9	107.5	107.2	106.9	106.5	106.4	106.2	106.1	106.1
12-1	Household furniture	126.3	126.0	125.9	125.6	125.3	125.1	124.3	123.6	123.6	123.3	123.0	123.0	122.8	122.3
12-2	Commercial furniture	127.6	127.6	125.1	125.1	124.9	124.5	124.4	124.1	124.0	122.4	121.7	119.5	119.5	120.0
12-3	Floor coverings	92.7	92.6	92.8	93.1	93.4	93.5	93.5	93.1	93.1	93.1	93.2	93.2	93.2	94.1
12-4	Household appliances	94.9	94.9	94.9	94.8	94.7	94.4	94.4	93.6	93.6	93.1	93.0	93.0	93.0	93.0
12-5	Home electronic equipment	77.2	77.0	77.0	77.0	77.2	77.2	77.2	77.8	77.7	77.9	77.9	77.9	77.9	78.2
12-6	Other household durable goods	135.8	135.5	135.3	135.6	134.6	134.8	133.0	133.3	131.1	131.2	131.4	131.4	131.2	130.6
13	**Nonmetallic mineral products**	118.1	117.9	117.9	117.8	117.3	116.9	116.5	114.5	113.9	113.8	113.5	113.0	113.0	112.8
13-11	Flat glass	122.1	121.6	121.1	121.5	119.9	119.0	118.4	117.8	116.2	116.2	116.2	116.2	116.2	114.6
13-2	Concrete ingredients	122.4	122.3	122.1	121.9	120.8	120.6	120.1	116.7	116.7	116.6	116.5	116.1	116.1	115.6
13-3	Concrete products	118.3	118.1	117.4	117.2	117.0	116.4	115.9	114.2	113.6	113.5	113.2	112.4	112.3	112.2
13-4	Structural clay products exc. refractories	121.3	121.2	121.2	120.9	119.8	119.4	119.4	118.5	118.5	117.8	117.5	117.0	116.9	117.0
13-5	Refractories	125.7	125.8	126.1	125.9	125.4	125.1	123.5	120.9	117.2	117.2	117.2	117.0	113.6	115.1
13-6	Asphalt roofing	92.0	92.7	95.1	95.1	97.8	100.8	101.8	101.2	94.0	96.7	96.7	96.7	100.9	98.3
13-7	Gypsum products	100.7	100.7	104.0	105.6	107.0	108.3	107.3	104.3	109.8	105.9	106.1	103.2	104.9	106.4
13-8	Glass containers	120.9	120.9	120.9	120.9	120.9	120.9	120.9	116.1	116.1	116.1	116.1	116.1	116.1	116.1
13-9	Other nonmetallic minerals	113.9	113.7	113.7	113.5	112.4	111.0	111.0	110.6	110.6	110.6	109.6	109.2	109.0	109.1
14	**Transportation equipment** (Dec. 1968=100)	103.2	103.3	103.2	103.1	103.2	102.9	102.9	102.7	102.7	102.3	100.0	99.9	100.4	100.7
14-1	Motor vehicles and equipment	109.4	109.5	109.4	109.3	109.4	109.1	109.1	109.0	109.0	108.7	106.1	106.0	106.6	107.0
14-4	Railroad equipment (Jan. 1961=100)	119.3	119.3	119.0	118.8	118.7	117.7	117.4	115.7	115.1	115.1	114.4	114.3	114.3	112.4
15	**Miscellaneous products**	121.4	121.0	118.2	117.8	117.8	117.5	117.4	117.0	117.0	116.7	116.4	115.9	115.5	114.7
15-1	Toys, sporting goods, small arms, ammunition	115.9	115.8	115.1	115.0	115.3	114.2	114.1	112.7	112.8	112.3	112.1	111.8	111.2	111.3
15-2	Tobacco products	131.7	132.3	124.1	124.1	124.1	124.0	124.0	124.0	124.0	123.8	123.8	123.5	123.4	120.8
15-3	Notions	109.8	109.4	109.0	109.0	109.0	109.0	107.2	107.2	107.2	106.7	106.7	106.7	102.0	103.6
15-4	Photographic equipment and supplies	117.0	116.1	116.2	116.2	115.9	115.8	115.7	115.3	115.0	114.9	113.9	111.4	111.4	113.0
15-9	Other miscellaneous products	118.2	116.8	116.6	115.0	114.8	114.8	115.1	114.9	114.9	114.8	114.3	114.2	114.1	113.1

[1] As of January 1967, the indexes incorporated a revised weighting structure reflecting 1963 values of shipments. Changes also were made in the classification structure, and titles and composition of some indexes were changed. Titles and indexes in this table conform with the revised classification structure, and may differ from data previously published. See **Wholesale Prices and Price Indexes**. January 1967 (final) and February 1967 (final) for a description of the changes.

[2] As of January 1962, the indexes were converted from the former base of 1947–49=100 to the new base of 1957–59=100. Technical details and earlier data on the 1957–59 base furnished upon request to the Bureau.

NOTE: For a description of the general method of computing the monthly **Wholesale Price Index**, see **BLS Handbook of Methods for Surveys and Studies** (BLS Bulletin 1458, October 1966), Chapter 11.

27. Wholesale price indexes for special commodity groupings [1]

[1957–59=100, unless otherwise specified] [2]

Commodity group	1970							1969						Annual average 1969
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
All commodities—less farm products	118.1	117.6	117.4	117.2	116.8	116.6	116.3	115.4	115.0	114.7	114.1	113.8	113.6	113.4
All foods	124.9	123.5	122.8	123.2	124.9	124.5	125.0	123.3	123.1	119.8	120.1	119.9	120.7	119.0
Processed foods	126.7	125.2	124.6	125.4	125.7	124.6	124.5	122.8	122.1	121.8	121.6	121.9	122.5	119.9
Textile products, excluding hard and bast fiber products	99.6	99.9	100.2	100.4	100.6	101.0	101.3	101.0	101.1	101.1	101.3	101.3	101.0	101.0
Hosiery	92.2	92.2	92.3	92.3	92.4	92.8	92.8	92.7	92.7	92.7	92.7	92.7	92.7	92.7
Underwear and nightwear	117.0	116.9	116.7	116.7	116.4	116.4	116.2	115.9	115.7	115.7	115.6	115.6	115.6	115.0
Refined petroleum products	102.4	102.2	104.2	101.3	100.8	101.2	101.0	102.2	101.6	101.6	101.8	102.5	103.2	101.8
East Coast	115.0	113.2	110.2	103.6	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
Mid-Continent	104.7	101.4	111.7	98.5	99.2	102.2	101.2	103.9	102.5	98.7	98.0	103.9	98.8	102.0
Gulf Coast	97.8	97.5	99.6	98.6	99.3	99.3	98.4	100.7	99.8	101.4	101.4	101.4	104.8	100.7
Pacific Coast	92.3	94.8	94.8	94.0	92.2	91.2	92.5	92.5	92.5	92.3	94.9	94.9	94.9	93.0
Midwest (Jan. 1961=100)	101.3	100.9	101.8	99.3	96.8	98.0	98.0	99.1	98.4	97.4	97.0	97.0	97.0	97.5
Pharmaceutical preparations	97.1	96.9	96.9	96.8	97.4	97.0	97.0	97.1	96.7	96.5	96.5	96.2	96.3	96.3
Lumber and wood products excluding millwork and other wood products [3]	116.5	117.4	118.6	117.3	116.4	117.5	119.3	120.6	122.2	120.1	120.8	121.7	123.5	134.6
Special metals and metal products [4]	123.3	123.4	123.1	122.5	122.0	121.4	120.6	119.9	119.2	118.8	117.5	116.6	115.7	116.0
Machinery and motive products	119.8	119.5	119.3	119.0	118.9	118.6	118.4	117.9	117.4	116.9	115.5	115.1	115.2	115.3
Machinery and equipment, except electrical	134.9	134.3	134.1	133.7	133.3	132.9	132.6	131.9	130.6	129.9	129.0	128.3	128.1	128.1
Agricultural machinery, including tractors	139.6	139.4	139.8	139.7	139.6	139.7	139.3	139.1	138.5	135.5	135.3	134.6	134.7	135.2
Metalworking machinery	149.7	149.0	148.3	147.1	146.6	146.0	145.2	144.6	143.6	143.4	141.7	140.9	140.9	140.5
Total tractors	142.6	142.6	142.8	142.8	142.9	143.0	142.8	142.5	141.3	139.4	138.4	137.1	137.0	138.1
Industrial valves	133.7	131.8	131.2	130.1	130.0	129.4	128.5	127.3	125.8	125.8	124.8	124.8	125.8	124.2
Industrial fittings	127.7	124.2	124.2	124.2	124.2	124.2	123.2	119.4	118.6	118.0	118.0	115.3	115.3	115.9
Abrasive grinding wheels	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.0	102.6	102.6	102.6	102.6	103.3
Construction materials	118.8	118.6	118.5	118.0	117.5	117.4	117.4	116.9	116.9	116.3	115.9	115.7	115.9	117.7

[1] See footnote 1, table 26.
[2] See footnote 2, table 26.
[3] Formerly titled "Lumber and wood products, excluding millwork."
[4] Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

28. Wholesale price indexes,[1] by stage of processing

[1957-59=100][2]

Commodity group	1970							1969						Annual average 1969
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
ALL COMMODITIES	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.0
CRUDE MATERIALS FOR FURTHER PROCESSING	113.8	113.0	112.8	113.4	114.2	113.0	110.7	109.9	109.0	108.7	108.7	109.5	110.2	107.9
Foodstuffs and feedstuffs	116.6	114.8	114.4	115.3	117.3	115.5	112.9	112.2	111.0	110.5	110.4	112.1	113.8	110.4
Nonfood materials except fuel	104.4	105.9	106.9	107.0	106.6	106.9	105.3	104.2	104.0	104.0	104.8	104.1	102.6	102.0
Manufacturing	102.9	104.6	105.6	105.8	105.6	105.9	104.3	103.2	103.0	103.0	103.9	103.2	101.6	101.0
Construction	121.0	120.7	120.3	120.2	118.0	117.5	116.4	115.3	115.3	115.1	114.9	114.1	114.1	114.0
Crude fuel	135.9	134.4	131.8	131.5	125.2	124.7	122.2	121.5	121.1	119.9	118.1	117.2	117.1	117.6
Manufacturing industries	129.3	128.1	126.2	126.0	121.5	121.2	119.6	118.8	118.6	117.8	116.7	115.6	115.5	116.0
Nonmanufacturing industries	144.8	143.0	139.2	138.8	130.3	129.4	125.8	125.0	124.5	122.8	120.1	119.4	119.3	119.8
INTERMEDIATE MATERIALS, SUPPLIES AND COMPONENTS	116.4	115.9	115.7	115.3	114.8	114.7	114.4	113.5	113.1	112.8	112.4	111.9	111.4	111.8
Materials and Components for Manufacturing	115.7	115.4	115.3	115.0	114.4	113.9	113.6	112.9	112.6	112.2	111.8	111.4	110.6	110.8
Materials for food manufacturing	124.3	123.0	122.5	123.4	122.9	121.5	121.1	119.9	120.0	119.2	118.3	118.4	117.8	116.8
Materials for nondurable manufacturing	102.6	102.4	102.8	102.7	102.4	102.3	102.3	101.6	101.7	101.5	101.7	101.7	101.2	101.2
Materials for durable manufacturing	125.5	125.6	125.4	124.5	123.4	122.7	122.1	121.4	120.4	120.0	119.6	118.7	117.4	118.1
Components for manufacturing	120.3	119.7	119.0	118.7	118.3	118.0	117.7	117.0	116.7	116.1	115.1	114.3	113.9	114.0
Materials and Components for Construction	119.1	118.9	118.6	118.2	117.7	117.3	117.3	116.8	116.7	116.2	115.8	115.5	115.4	116.9
Processed fuels and lubricants	105.5	104.8	105.1	103.6	103.0	103.0	102.4	102.7	102.1	102.3	101.0	100.6	100.8	100.9
Manufacturing industries	108.2	107.6	107.3	106.7	106.1	106.0	105.3	105.1	104.5	104.8	103.2	102.3	102.4	103.1
Nonmanufacturing industries	101.3	100.4	101.6	98.8	98.3	98.3	97.8	99.0	98.4	98.4	97.6	97.8	98.4	97.4
Containers	119.1	118.7	118.5	118.5	118.1	117.6	116.2	114.8	114.6	114.5	114.2	113.7	113.3	113.3
Supplies	120.7	118.9	118.3	118.5	117.6	120.1	119.7	116.9	115.9	115.6	115.1	114.4	114.3	114.4
Manufacturing industries	122.3	122.1	121.9	121.7	121.1	120.9	120.5	119.4	118.7	118.0	117.8	117.4	116.8	117.0
Nonmanufacturing industries	119.2	116.8	116.0	116.4	115.4	119.1	118.6	115.1	113.9	113.9	113.3	112.4	112.5	112.5
Manufactured animal feeds	119.4	112.9	111.4	113.2	110.7	122.8	123.7	114.1	111.6	112.3	111.7	110.5	110.8	110.6
Other supplies	115.2	114.8	114.5	114.2	113.9	113.4	112.3	111.8	111.4	111.0	110.4	109.7	109.7	109.8
FINISHED GOODS (Including Raw Foods and Fuels)	119.7	119.0	118.7	118.6	119.0	118.8	118.8	118.0	117.6	116.5	116.0	115.7	115.9	115.3
Consumer Goods	118.0	117.3	117.0	116.8	117.4	117.3	117.3	116.5	116.2	115.1	114.7	114.4	114.8	114.0
Foods	125.9	124.2	123.6	124.1	126.0	125.9	126.4	124.5	123.9	121.2	121.6	121.2	122.3	120.3
Crude	118.3	115.4	115.0	114.3	123.3	128.0	131.6	129.5	131.0	114.2	116.9	112.4	114.9	117.5
Processed	127.3	125.8	125.2	125.9	126.4	125.4	125.3	123.5	122.5	122.4	122.4	122.8	123.7	120.7
Other nondurable goods	116.0	115.9	115.6	114.9	114.7	114.6	114.2	114.1	113.8	113.6	113.3	113.0	112.6	112.3
Durable goods	108.3	108.1	108.0	107.8	107.8	107.6	107.4	107.2	107.1	106.9	105.3	105.2	105.6	105.8
Producer Finished Goods	124.6	124.2	124.0	123.7	123.5	123.1	122.9	122.3	121.5	120.8	119.9	119.3	119.3	119.3
Manufacturing industries	130.6	129.9	129.5	129.1	128.9	128.4	128.0	127.5	126.2	125.8	125.0	124.4	124.4	124.1
Nonmanufacturing industries	119.2	119.0	118.8	118.7	118.5	118.2	118.0	117.4	117.0	116.1	115.0	114.4	114.5	114.7
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds and leaf tobacco	118.0	119.5	120.0	120.3	118.5	118.5	116.0	114.5	114.1	113.7	113.9	112.5	110.7	110.5
Intermediate materials supplies and components, excluding intermediate materials for food mfg., and mfr.'d animal feeds	115.6	115.4	115.2	114.7	114.2	113.9	113.5	112.9	112.6	112.2	111.8	111.3	110.9	111.3
Consumer finished goods, excluding consumer foods	113.1	112.9	112.7	112.2	112.1	111.9	111.7	111.5	111.3	111.1	110.3	110.1	110.0	109.9

[1] See footnote 1, table 26.
[2] See footnote 2, table 26.

NOTE: For description of the series by stage of processing, see Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final).

29. Wholesale price indexes,[1] by durability of product

[1957–59=100][2]

Commodity group	1970							1969						Annual average 1969
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
All commodities	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.0
Total durable goods	121.6	121.5	121.3	120.9	120.5	120.0	119.6	119.0	118.4	117.9	117.1	116.5	116.1	116.6
Total nondurable goods	114.8	113.8	113.6	113.6	113.9	113.9	113.4	112.4	111.9	111.2	111.1	111.1	111.3	110.3
Total manufactures	118.0	117.4	117.1	116.9	116.6	116.4	116.1	115.3	114.9	114.6	113.9	113.6	113.5	113.3
Durable	121.5	121.3	121.0	120.5	120.1	119.7	119.4	118.8	118.3	117.9	117.0	116.4	116.1	116.6
Nondurable	114.5	113.6	113.4	113.4	113.2	113.2	113.0	111.9	111.6	111.4	111.0	111.0	111.0	110.1
Total raw or slightly processed goods	115.7	114.7	114.5	114.7	116.3	116.0	114.8	113.9	113.1	111.0	111.6	111.5	112.2	110.9
Durable	124.4	128.9	131.9	131.9	134.0	133.8	128.9	125.3	124.0	122.8	123.7	119.7	114.8	115.8
Nondurable	115.2	113.9	113.6	113.8	115.3	115.1	114.1	113.3	112.5	110.3	110.9	111.1	112.1	110.7

[1] See footnote 1, table 26.
[2] See footnote 2, table 26.

NOTE: For description of the series by durability of product and data beginning with 1947, see "Wholesale Price and Price Indexes, 1957" (BLS Bulletin 1235, 1958).

30. Industry-sector price indexes for the output of selected industries[1]

[1957–59=100 unless otherwise indicated]

1963 SIC Code	Industry	Other bases	1969												1968	Annual average 1969
			Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
	MINING															
1111	Anthracite		118.4	114.9	111.4	111.4	108.0	108.0	104.2	104.2	106.2	107.4	107.4	107.0	107.0	109.0
1211	Bituminous coal		124.9	124.2	121.3	116.2	116.1	116.0	115.0	114.1	113.4	113.1	113.1	113.1	113.1	116.7
1311	Crude petroleum and natural gas		110.9	110.9	110.8	110.9	110.6	110.5	110.6	110.7	110.9	109.9	106.6	106.5	106.4	110.0
1421	Crushed and broken stone		114.5	114.5	114.2	114.2	113.6	113.6	113.6	112.6	112.5	112.5	112.5	112.5	111.3	113.4
1442	Construction sand and gravel		123.0	123.0	123.0	122.5	121.5	121.5	120.7	120.6	120.8	120.6	119.8	119.8	118.6	121.4
1475	Phosphate rock		147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4
1476	Rock salt		107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	100.8	100.8	100.8	100.8	105.5
1477	Sulfur		115.8	115.8	124.1	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	173.7	173.7	154.4
	MANUFACTURING															
2011	Meat slaughtering plants	12/66	114.0	113.5	113.8	116.2	117.4	121.7	121.2	114.8	108.0	104.6	103.9	104.2	100.1	112.8
2013	Meat processing plants	12/66	121.3	118.5	119.1	120.3	122.0	118.7	117.0	109.7	104.8	103.4	101.7	100.3	100.7	113.1
2015	Poultry dressing plants		105.7	103.3	101.7	104.0	107.8	103.3	101.7	102.3	96.1	99.6	98.5	95.9	90.4	101.7
2021	Creamery butter	12/66	106.3	105.1	105.1	105.1	104.9	104.9	104.8	104.8	104.9	103.4	103.3	103.4	105.0	104.7
2033	Canned fruits and vegetables	12/66	109.8	109.7	109.5	109.0	108.7	108.7	107.7	107.7	107.8	107.7	107.6	107.4	107.3	108.4
2036	Fresh or frozen packaged fish		150.8	154.1	146.5	145.9	143.8	146.4	139.9	140.4	136.8	141.7	141.4	140.1	139.0	144.0
2044	Rice milling		94.0	94.0	94.0	93.1	92.6	92.6	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.6
2052	Biscuits, crackers and cookies	12/66	109.7	109.7	108.0	107.1	104.5	104.4	104.4	104.4	104.3	104.3	104.3	104.3	104.3	105.8
2061	Raw cane sugar	12/66	107.0	110.1	110.5	109.6	108.9	104.5	109.5	109.5	109.0	108.5	107.7	107.5	106.8	108.5
2062	Cane sugar refining	12/66	108.9	109.3	109.2	108.4	108.1	107.6	107.6	107.2	105.8	103.9	103.6	103.6	103.2	106.9
2063	Beet sugar	12/66	106.1	106.6	106.7	106.4	106.3	105.7	106.7	104.9	105.0	102.3	102.2	102.6	102.5	105.1
2073	Chewing gum		106.2	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2082	Malt liquors		107.3	107.3	107.7	107.1	107.2	107.2	106.7	106.0	104.9	104.9	104.9	104.9	104.9	106.3
2083	Malt	12/66	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
2084	Wines and brandy		118.3	118.3	118.3	115.5	115.5	115.7	115.7	115.7	115.7	115.7	115.5	115.5	115.5	116.3
2091	Cottonseed oil mills		99.4	95.8	91.5	97.0	97.2	98.3	92.9	92.7	93.9	93.6	93.7	95.0	94.5	95.1
2092	Soybean oil mills	12/66	88.6	88.0	91.0	85.7	87.4	87.1	87.0	86.3	85.6	84.8	83.1	83.3	82.2	86.5
2094	Animal and marine fats and oils	12/66	96.4	104.9	102.1	105.8	104.6	99.6	93.8	89.0	88.9	85.1	82.9	81.3	79.7	94.5
2096	Shortening and cooking oils		108.8	107.2	105.5	102.6	102.5	102.3	103.3	103.1	103.2	103.1	102.9	101.0	100.3	103.8
2098	Macaroni and noodle products	12/66	101.9	101.9	101.9	101.9	101.8	101.9	101.8	101.8	101.5	100.4	100.3	100.3	100.3	101.5
2111	Cigarettes		125.1	125.0	125.0	125.0	125.0	125.0	124.9	117.5	117.5	117.4	117.4	117.4	117.4	121.9
2121	Cigars		107.3	107.3	106.8	106.8	105.2	103.8	102.7	102.7	102.7	102.1	102.0	102.0	101.7	104.3
2131	Chewing and smoking tobacco		141.4	140.6	138.5	138.3	138.1	138.1	137.1	137.0	136.0	134.7	134.7	132.4	132.4	137.2
2254	Knit underwear mills	12/66	107.8	107.7	107.7	107.7	107.7	107.7	106.3	106.4	106.3	106.3	106.3	106.3	105.7	107.0
2311	Men's and boys' suits and coats		142.7	142.2	140.4	139.4	138.5	137.1	135.8	134.4	134.7	134.3	134.3	134.2	133.4	137.3
2321	Men's dress shirts and nightwear		122.1	121.0	121.0	120.6	120.6	118.3	118.2	118.2	118.8	118.8	118.9	118.7	115.5	119.6
2322	Men's and boys' underwear	12/66	109.1	109.0	109.0	107.9	107.9	107.7	106.9	107.0	107.1	107.1	107.0	106.9	106.4	107.7
2327	Men's and boys' separate trousers	12/65	106.9	106.8	106.8	106.4	106.3	106.1	106.1	104.8	104.8	104.7	104.7	104.7	103.9	105.8
2328	Work clothing		119.1	119.0	119.0	118.3	117.7	117.4	117.4	116.6	116.6	116.6	116.6	116.5	115.1	117.6
2381	Fabric dress and work gloves		137.1	135.4	135.4	134.8	132.1	131.9	131.9	131.9	131.7	130.8	130.6	130.1	128.4	132.8
2426	Hardwood dimension and flooring	12/66	116.5	116.6	116.7	117.2	117.3	117.8	119.0	120.7	121.1	120.6	118.8	116.5	114.7	118.2
2442	Wirebound boxes and crates	12/67	110.7	110.0	110.0	110.0	108.6	108.3	107.4	107.4	106.5	106.4	106.4	106.3	105.6	108.2
2515	Mattresses and bedsprings	12/66	108.2	108.7	108.5	108.5	108.5	108.3	108.2	108.2	108.3	108.2	108.2	106.7	104.3	108.2
2521	Wood office furniture		139.2	138.9	137.6	135.9	134.3	134.3	134.3	133.4	132.8	132.2	131.7	131.1	131.1	134.6
2647	Sanitary paper products	12/66	115.3	115.3	113.9	113.5	113.1	112.3	111.5	111.1	111.1	111.1	110.2	108.0	108.0	112.2
2654	Sanitary food containers	12/66	101.3	101.2	100.6	100.4	100.4	100.1	100.7	100.6	100.6	100.4	100.7	100.8	100.5	100.7

See footnotes at end of table.

30. Industry-sector price indexes for the output of selected industries [1]—Continued

1963 SIC Code	Industry	Other bases	1969												1968	Annual Average 1969
			Dec. [2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
	MANUFACTURING—Continued															
2822	Synthetic rubber		96.0	96.0	96.0	96.0	95.9	95.9	95.9	95.9	95.8	95.3	95.3	94.5	94.7	95.7
2823	Cellulosic man-made fibers		95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.8	95.8	95.8	95.7	95.7
2824	Organic fibers, noncellulosic	12/66	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
2871	Fertilizers	12/66	85.0	85.0	85.4	88.3	88.5	88.7	99.2	99.2	99.2	99.4	99.4	99.6	100.3	93.1
2872	Fertilizers, mixing only	12/66	90.6	90.6	91.2	92.7	92.6	93.1	93.3	93.3	93.3	93.9	93.7	94.1	94.8	92.7
2892	Explosives		117.1	117.3	117.3	117.4	117.5	117.4	117.5	116.9	115.0	114.8	114.1	114.1	114.6	116.4
2911	Petroleum refining		97.8	97.3	97.3	97.5	98.1	98.8	98.8	98.0	98.0	97.1	95.1	94.7	95.1	97.4
3111	Leather tanning and finishing		120.4	120.5	121.2	122.3	121.5	121.7	122.1	122.2	122.8	116.7	116.7	117.0	116.1	120.4
3121	Industrial leather belting	12/66	118.3	117.2	117.4	117.6	118.2	117.5	113.5	115.4	112.0	111.5	110.5	109.7	111.0	114.9
3221	Glass containers		116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	110.3	116.1
3241	Cement, hydraulic		114.9	114.9	114.9	114.9	114.8	114.8	114.8	114.8	114.8	114.7	111.7	108.5	105.9	114.0
3251	Brick and structural clay tile		125.1	125.1	124.4	124.4	123.5	123.5	123.4	123.2	123.0	121.5	121.5	121.4	121.2	123.3
3255	Clay refractories		126.2	122.2	122.2	122.2	122.0	117.8	117.8	117.8	117.8	116.7	116.7	116.7	116.7	119.7
3259	Structural clay products, n.e.c.		116.4	116.4	115.9	115.1	115.0	114.4	114.8	115.3	115.3	115.3	115.1	115.0	114.1	115.3
3261	Vitreous plumbing fixtures		104.6	104.2	103.4	102.4	102.4	102.4	100.9	100.8	99.8	99.8	99.7	99.5	99.1	101.7
3262	Vitreous china food utensils		143.7	143.7	139.8	139.8	139.8	139.8	137.2	137.2	137.2	134.3	134.3	134.3	134.3	138.4
3263	Fine earthenware food utensils		131.2	131.2	130.9	130.9	130.9	130.9	127.0	127.0	127.0	123.3	123.3	123.3	123.3	128.1
3271	Concrete block and brick		115.4	115.0	114.9	114.6	114.5	114.5	113.7	114.2	114.2	114.5	113.4	112.9	111.7	114.3
3273	Ready mixed concrete	1958	115.7	114.9	114.7	114.4	113.7	113.5	112.7	112.6	112.3	112.0	111.8	111.7	110.3	113.3
3275	Gypsum products		104.7	110.1	106.2	106.4	103.6	105.2	108.9	108.9	106.5	106.5	106.5	106.5	106.5	106.7
3312	Blast furnace and steel mills		115.3	115.3	115.2	114.4	114.3	112.5	111.8	111.7	110.8	110.6	109.5	109.3	107.7	112.6
3315	Steel wire drawing, etc.	12/66	108.6	108.5	108.4	107.5	107.0	106.4	106.3	105.9	105.1	105.1	105.1	104.5	103.7	106.5
3316	Cold finishing of steel shapes	12/66	113.6	113.7	113.7	112.1	112.1	109.0	109.0	108.7	107.5	107.4	107.4	107.2	107.0	110.1
3317	Steel pipe and tube	12/66	110.5	110.4	110.4	108.4	107.8	107.7	107.3	107.3	107.2	105.7	105.6	104.8	104.7	107.8
3333	Primary zinc	12/66	107.7	107.7	107.4	105.6	100.9	100.6	100.5	100.4	97.1	96.9	96.9	97.2	93.9	101.6
3334	Primary aluminum	12/66	114.0	114.0	114.0	110.0	110.0	110.0	109.0	109.0	109.0	109.0	109.0	106.1	105.4	110.3
3339	Primary nonferrous metals, n.e.c.	12/66	134.8	138.9	133.9	131.8	123.8	120.5	120.1	120.1	120.3	119.5	119.8	122.3	119.4	125.5
3351	Copper rolling and drawing		171.4	166.4	166.4	165.9	160.6	154.5	152.3	151.7	147.8	144.6	142.8	142.8	134.3	155.6
3411	Metal cans	12/66	109.0	109.0	109.0	109.0	109.0	108.9	108.9	108.9	108.9	108.9	108.8	106.3	106.2	108.7
3423	Hand and edge tools	12/67	110.8	110.6	109.6	108.4	108.4	107.8	107.1	106.9	107.2	106.3	105.9	105.0	104.8	107.8
3431	Metal plumbing fixtures		100.4	100.3	99.8	99.4	98.8	98.7	97.3	96.6	95.8	95.8	95.7	95.3	95.0	97.8
3493	Steel springs	12/66	107.2	107.2	107.2	106.8	106.8	106.8	106.3	106.0	105.9	105.8	105.8	105.8	105.2	106.5
3496	Collapsible tubes	1958	103.8	103.7	103.7	103.7	103.6	103.6	103.5	103.2	103.2	103.1	103.0	102.9	101.5	103.4
3498	Fabricated pipe and fittings		130.9	130.8	130.4	130.4	130.3	130.3	129.7	129.7	129.7	123.4	123.4	123.4	122.7	128.5
3519	Internal combustion engines	12/66	110.9	110.8	110.1	109.7	109.1	108.0	108.3	108.3	107.9	107.5	106.9	106.7	106.6	108.7
3533	Oil field machinery		125.1	122.7	122.5	122.4	121.8	121.5	121.0	120.8	120.4	120.0	119.1	119.0	118.0	121.4
3534	Elevators and moving stairways	12/66	110.5	107.7	107.7	107.6	107.6	107.6	104.5	104.5	104.5	104.5	103.9	103.9	103.9	106.2
3537	Industrial trucks and tractors		134.0	133.9	133.6	132.6	131.2	131.2	130.5	129.1	128.6	128.6	128.2	128.1	127.2	130.8
3562	Ball and roller bearings	12/66	105.7	103.7	103.7	102.6	102.6	102.2	102.2	102.1	102.1	102.1	102.1	101.6	101.6	102.7
3572	Typewriters	12/66	103.9	103.8	103.2	103.1	103.1	101.5	101.4	101.3	100.5	100.6	100.6	100.6	100.6	102.0
3576	Scales and balances		133.4	133.2	133.0	133.0	129.9	129.9	128.6	127.0	127.0	126.9	126.9	126.3	126.4	129.6
3612	Transformers	12/66	100.3	99.3	100.2	101.6	101.6	101.3	101.1	100.2	100.8	102.2	102.3	104.6	104.6	101.3
3613	Switchgear and switchboards	12/66	107.1	106.7	105.7	105.9	103.6	104.4	104.9	104.0	103.6	104.3	104.9	104.8	104.4	105.0
3624	Carbon and graphite products	12/67	104.8	104.4	104.4	104.3	104.3	104.3	103.0	101.1	101.0	101.0	101.0	101.0	101.0	102.9
3635	Household vacuum cleaners	12/66	99.9	99.9	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.5	99.8
3641	Electric lamps	12/66	98.4	98.5	99.2	101.1	100.3	99.6	104.1	103.1	103.6	102.7	103.0	103.0	103.0	101.4
3652	Phonograph records		123.5	123.5	123.5	123.5	122.6	122.6	122.6	122.3	122.3	122.3	122.3	121.3	119.8	122.7
3671	Electron tubes, receiving type	12/66	121.2	121.3	121.3	121.2	117.8	117.8	117.8	117.8	117.8	117.7	109.6	105.9	105.9	117.3
3672	Cathode ray picture tubes	12/66	87.5	89.7	90.0	90.0	90.0	90.0	89.9	89.9	89.9	89.9	89.8	89.9	92.4	89.7
3673	Electron tubes, transmitting	12/66	103.2	103.2	103.1	103.0	102.9	102.9	102.1	102.1	102.0	102.0	102.0	102.1	102.0	102.6
3674	Semiconductors	12/66	92.7	92.8	92.7	92.6	92.7	92.6	92.6	92.7	92.7	92.6	92.4	92.4	92.5	92.6
3692	Primary batteries, dry and wet		115.4	115.4	115.3	115.2	115.2	115.2	115.2	115.2	115.2	114.9	113.8	112.5	111.3	114.9
3693	X-ray apparatus and tubes	12/67	117.4	115.6	115.4	113.1	112.8	112.8	112.5	112.6	111.0	111.3	111.4	111.1	107.7	113.1
3941	Games and toys	12/66	112.1	112.2	111.4	111.4	111.4	111.1	111.1	111.1	111.2	111.1	111.2	110.3	110.1	111.3

[1] For a description of the series, see **BLS Handbook of Methods for Surveys and Studies** (BLS Bulletin 1458), Chapter 12. See also. "Industry and Sector Price indexes." in **Monthly Labor Review**, August 1965, pp. 974–982.

[2] Current monthly industry-sector price indexes are not available for this issue. At the beginning of each calendar year, changes in the sample for some indexes must be made and necessary internal reweighting accomplished; this has caused the delay. Indexes beginning with January 1970 will be published in a later report.

NOTE. Beginning in January 1967, index weights and classifications are based on the 1963 Censuses of Manufactures and Minerals. They were formerly based on the 1958 Industrial Censuses.

31. Work stoppages resulting from labor-management disputes [1]

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year (thousands)	In effect during month (thousands)	Number (thousands)	Percent of estimated working time
1945	4,750		3,470		38,000	0.31
1946	4,985		4,600		116,000	1.04
1947	3,693		2,170		34,600	.30
1948	3,419		1,960		34,100	.28
1949	3,606		3,030		50,500	.44
1950	4,843		2,410		38,800	.33
1951	4,737		2,220		22,900	.18
1952	5,117		3,540		59,100	.48
1953	5,091		2,400		28,300	.22
1954	3,468		1,530		22,600	.18
1955	4,320		2,650		28,200	.22
1956	3,825		1,900		33,100	.24
1957	3,673		1,390		16,500	.12
1958	3,694		2,060		23,900	.18
1959	3,708		1,880		69,000	.50
1960	3,333		1,320		19,100	.14
1961	3,367		1,450		16,300	.11
1962	3,614		1,230		18,600	.13
1963	3,362		941		16,100	.11
1964	3,655		1,640		22,900	.15
1965	3,963		1,550		23,300	.15
1966	4,405		1,960		25,400	.15
1967	4,595		2,870		42,100	.25
1968	5,045		2,649		49,018	.28
1969	5,700		2,481		42,869	.24
1967: January	286	443	94.4	163.5	1,247.9	.09
February	292	485	104.1	159.2	1,275.8	.10
March	368	545	129.9	195.4	1,507.8	.10
April	462	638	397.6	438.8	2,544.8	.19
May	528	769	277.8	584.9	4,406.4	.30
June	472	759	211.8	405.0	4,927.4	.33
July	389	682	664.6	865.5	4,328.7	.32
August	392	689	91.3	233.1	2,859.5	.18
September	415	681	372.8	473.6	6,159.8	.45
October	449	727	178.8	458.7	7,105.6	.47
November	360	653	277.1	559.5	3,213.2	.22
December	182	445	74.4	209.5	2,546.5	.18
1968: January	314	483	187.8	275.7	2,668.5	.18
February	357	569	275.0	451.3	4,104.1	.29
March	381	618	174.5	368.7	3,682.0	.26
April	505	748	537.2	656.7	5,677.4	.38
May	610	930	307.3	736.2	7,452.2	.49
June	500	810	168.5	399.9	5,576.8	.40
July	520	880	202.0	465.1	4,611.9	.30
August	466	821	153.8	359.6	4,048.9	.26
September	448	738	169.8	349.0	3,081.1	.22
October	434	741	279.0	414.5	3,991.7	.25
November	327	617	129.9	306.1	2,430.5	.17
December	183	408	64.1	189.2	1,692.5	.11
1969: January	342	511	184.9	264.3	3,173.3	.21
February	385	578	177.1	339.9	2,565.8	.18
March	436	651	158.1	386.3	2,412.5	.16
April	578	831	309.7	462.3	3,755.0	.24
May	723	1,054	286.3	507.7	4,744.7	.32
June	565	911	214.6	500.0	4,722.7	.31
July	528	883	255.0	461.5	4,311.0	.27
August	538	915	191.2	394.8	3,634.3	.24
September	554	904	185.6	274.5	2,193.4	.15
October	531	850	337.0	420.9	3,167.5	.19
November	324	611	131.0	367.6	4,307.6	.31
December	196	446	50.8	276.0	3,881.8	.24
1970: January [p]	260	420	55	233	3,730	.25
February [p]	290	460	106	296	1,820	.13
March [p]	390	570	294	364	2,230	.14
April [p]	600	810	319	385	4,181	.26
May [p]	750	960	309	470	7,516	.52
June [p]	600	840	212	428	5,040	.31
July [p]	490	750	192	354	4,378	.28

[1] The data include all known strikes or lockouts involving 6 workers or more and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.

[p]=Preliminary.

32. Output per man-hour, hourly compensation, unit costs, and prices, private economy, seasonally adjusted

[Indexes 1957–59=100]

Year and quarter	Output		Man-hours		Output per man-hour		Compensation per man-hour [1]		Real compensation per man-hour [2]		Unit labor costs		Unit nonlabor payments [3]		Implicit price deflator [4]	
	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm
1967: 1st qtr	146.4	148.2	110.6	115.5	132.4	128.4	147.6	143.3	128.7	125.0	111.5	111.7	117.7	117.9	113.8	114.0
2d qtr	147.5	149.1	109.5	114.9	134.7	129.8	150.4	145.6	130.3	126.0	111.7	112.1	118.8	118.8	114.3	114.6
3d qtr	149.1	150.9	110.3	115.3	135.2	130.9	152.4	147.8	130.6	126.6	112.8	113.0	119.9	120.3	115.5	115.6
4th qtr	150.1	152.0	111.0	116.1	135.3	130.9	154.3	149.7	131.1	127.2	114.1	114.4	120.6	120.8	116.5	116.7
Ann. Avg	148.3	150.1	110.3	115.4	134.4	130.0	151.2	146.6	130.1	126.2	112.5	112.8	119.2	119.4	115.1	115.2
1968: 1st qtr	152.4	154.3	111.3	116.5	136.9	132.4	158.5	153.6	133.3	129.2	115.8	116.0	120.4	120.8	117.5	117.8
2d qtr	155.1	157.4	112.3	117.7	138.1	133.7	160.8	155.7	133.7	129.5	116.5	116.5	122.3	122.7	118.7	118.8
3d qtr	156.7	159.0	112.9	118.5	138.8	134.2	164.1	158.4	134.7	130.1	118.2	118.1	122.0	122.6	119.6	119.7
4th qtr	157.9	160.1	113.2	118.9	139.5	134.6	167.5	161.7	135.9	131.3	120.1	120.2	122.3	122.7	120.9	121.1
Ann. Avg	155.5	157.7	112.4	117.9	138.3	133.7	162.8	157.4	134.4	130.0	117.7	117.7	121.7	122.1	119.2	119.3
1969: 1st qtr	159.0	161.1	114.2	120.1	139.3	134.1	170.0	163.9	136.3	131.5	122.1	122.2	122.8	123.0	122.4	122.5
2d qtr	159.8	162.4	115.1	121.2	138.9	134.0	172.4	166.2	136.0	131.1	124.2	124.1	123.2	123.0	123.8	123.7
3d qtr	160.9	163.4	115.3	121.7	139.5	134.2	175.9	169.2	136.8	131.6	126.1	126.1	123.6	123.5	125.2	125.1
4th qtr	160.4	163.1	114.8	121.4	139.7	134.3	179.6	172.4	137.8	132.2	128.6	128.4	123.3	123.2	126.6	126.4
Ann. Avg	160.0	162.5	114.9	121.1	139.3	134.2	174.5	167.9	136.8	131.6	125.3	125.2	123.2	123.2	124.5	124.5
1970: 1st qtr	159.2	161.9	114.7	121.4	138.9	133.3	182.6	175.1	138.0	132.3	131.5	131.4	122.7	122.0	128.3	127.9
2d qtr [p]	159.3	161.9	113.8	120.4	139.9	134.4	184.9	177.5	137.5	132.0	132.2	132.1	125.2	124.7	129.5	129.4
	Percent change over previous quarter at annual rate [5]															
1967: 1st qtr	−1.3	−2.2	0.0	−0.3	−1.3	−1.8	3.1	4.3	2.4	3.6	4.4	6.2	−1.0	−1.6	2.3	3.2
2d qtr	3.0	2.5	−3.8	−2.1	7.0	4.6	7.8	6.3	4.8	3.4	0.7	1.6	3.8	2.9	1.9	2.1
3d qtr	4.3	4.8	2.9	1.6	1.4	3.2	5.4	6.3	1.2	2.0	4.0	3.1	3.9	5.2	4.0	3.9
4th qtr	2.9	2.9	2.5	2.7	0.3	0.3	5.1	5.4	1.6	1.9	4.7	5.1	2.3	1.8	3.8	3.9
1968: 1st qtr	6.1	6.2	1.1	1.5	4.9	4.6	11.2	10.6	6.7	6.2	6.0	5.7	−0.8	0.0	3.3	3.5
2d qtr	7.2	8.2	3.7	4.2	3.4	3.9	6.1	5.7	1.2	0.9	2.6	1.8	6.6	6.4	4.1	3.5
3d qtr	4.3	4.2	2.0	2.8	2.2	1.4	8.4	7.0	3.1	1.9	6.0	5.5	−1.0	−0.4	3.3	3.2
4th qtr	3.1	2.8	1.2	1.3	1.8	1.4	8.5	8.7	3.6	3.8	6.5	7.2	1.1	0.4	4.4	4.6
1969: 1st qtr	2.8	2.6	3.4	4.2	−0.5	−1.5	6.2	5.5	1.2	0.5	6.7	7.1	1.4	1.1	4.7	4.8
2d qtr	2.1	3.1	3.3	3.6	−1.1	−0.4	5.9	5.8	−1.0	−1.0	7.1	6.3	1.5	0.0	4.9	3.9
3d qtr	2.5	2.5	0.9	1.9	1.6	0.6	8.2	7.3	2.3	1.4	6.5	6.6	1.1	1.5	4.5	4.7
4th qtr	−1.0	−0.6	−1.8	−1.0	0.8	0.3	8.8	7.7	3.0	1.9	7.9	7.3	−0.8	−1.0	4.7	4.3
1970: 1st qtr	−3.0	−2.9	−0.5	−0.1	−2.5	−2.9	6.8	6.6	0.5	0.3	9.6	9.8	−2.0	−3.8	5.3	4.8
2d qtr [p]	0.1	−0.1	−2.9	−3.3	3.1	3.3	5.1	5.6	−1.3	−0.9	1.9	2.2	8.2	9.3	4.1	4.6
	Percent change over previous year [6]															
1969: 1st qtr	4.3	4.4	2.6	3.1	1.7	1.3	7.3	6.7	2.3	1.8	5.4	5.4	2.0	1.8	4.1	4.0
2d qtr	3.1	3.2	2.5	3.0	0.6	0.2	7.2	6.7	1.7	1.3	6.6	6.5	0.8	0.2	4.3	4.1
3d qtr	2.7	2.8	2.2	2.7	0.4	0.0	7.2	6.8	1.5	1.2	6.7	6.8	1.3	0.7	4.6	4.5
4th qtr	1.6	1.9	1.4	2.1	0.2	−0.2	7.3	6.6	1.4	0.7	7.1	6.8	0.8	0.4	4.7	4.4
1970: 1st qtr	0.2	0.5	0.5	1.1	−0.3	−0.6	7.4	6.8	1.2	0.6	7.8	7.5	0.0	−0.8	4.8	4.4
2d qtr [p]	−0.3	−0.3	−1.1	−0.6	0.8	0.3	7.2	6.8	1.1	0.7	6.4	6.5	1.6	1.4	4.6	4.6

[1] Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplementary payments for the self-employed.

[2] Compensation per man-hour adjusted for changes in the consumer price index.

[3] Nonlabor payments include profits, depreciation, interest, rental income and indirect taxes.

[4] Current dollar gross product divided by constant dollar gross product.

[5] Percent change computed from original data.

[6] Current quarter divided by comparable quarter a year ago.

NOTE: Data for 1967, 1968, 1969, and the first quarter of 1970 have been adjusted to new benchmarks and are not comparable to those published in the Monthly Labor Review prior to September 1970.

SOURCE: Output data from the Office of Business Economics, U.S. Department of Commerce. Man-hours and compensation of all persons from the Bureau of Labor Statistics.

[p] = Preliminary.

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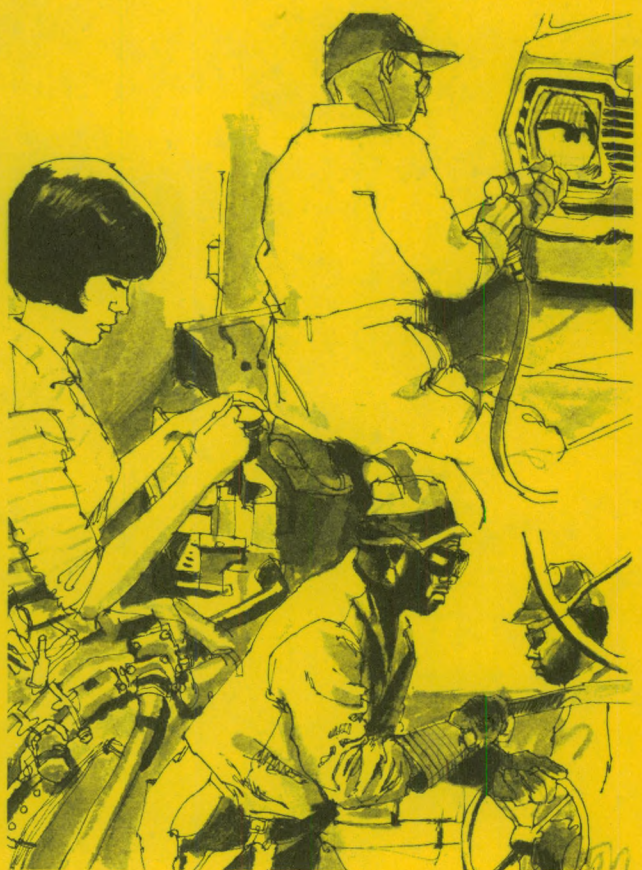

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