ONTHLY LABOR REVIEW
ril 1972
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U.S. DEPARTMENT OF LABOR
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The Monthly Labor Review is for sale by
the regional offices of the Bureau of Labor Statistics
and by the Superintendent of Documents,
U.S. Government Printing Office
Washington, D. C. 20402
Subscription price per year —
$9 domestic; $11.25 foreign.
Single copy 75 cents.
Correspondence regarding subscriptions
should be addressed to the Superintendent of Documents.

Communications on editorial matters
should be addressed to the Editor-in-Chief,
Monthly Labor Review, Bureau of Labor Statistics,
Washington, D. C. 20212
Phone: (202) 961-2327.

Use of funds for printing this publication
approved by the Director of the Bureau
of the Budget (October 31, 1967)

April cover:
Photo by
Harrison Allen

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MONTHLY LABOR REVIEW
Editor-in-Chief, Herbert C. Morton
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APRIL 1972 VOLUME 95, NUMBER 4

Labor Month in Review

MANPOWER LESSONS. The U.S. Department of Labor marked the 10th anniversary of the Manpower Development and Training Act at a 2-day anniversary conference, March 16 and 17, which took both a retrospective view of the first 10 years of manpower policy and programs and a forward look at policy for the 1970's.

The unfolding history of manpower policy is also told in the tenth annual *Manpower Report of the President,* issued in March. The 1972 report contains broad reviews of employment and unemployment in 1971 and of recent developments in manpower programs and legislation, and special chapters on the manpower implications of Government actions in many different fields, on the critical unemployment problems of teenage workers, and on the changed manpower situation in the professions.

The report cites some of the manpower lessons learned during the past 10 years:

Structural unemployment. "The contributions of manpower programs to the country's economic and social objectives are not fully tested as yet and are undergoing comprehensive evaluation. The optimum scale and composition of manpower programs and how they can be integrated most effectively with broader economic policies are issues which also need additional exploration. Nevertheless, there is mounting evidence, both inductive and deductive, that manpower measures can help to overcome the structural barriers which limit the effectiveness of fiscal and monetary policies in reducing unemployment without generating inflationary pressures."

State and local involvement. "The last decade has witnessed widespread experimentation by the Federal Government—in cooperation with State and local governments, employers, and trade unions—to provide second-chance educational and training opportunities for the hard-to-employ. In the process of establishing and expanding a wide array of manpower programs—involving classroom and on-the-job training, school-work arrangements, work experience, and income maintenance—the Federal Government has made a major contribution to institution building. The public employment service system has been strengthened, new occupational training centers established, and the Nation's manpower research potential expanded. In the past 3 years, State and local governments have been encouraged and aided in developing a manpower planning and programing capability.

"In the long run this broad institution-building effort may prove even more important than the specific training, income maintenance, and job placement assistance that the Federal Government has rendered the hard-to-employ through its diversified manpower programs."

Impact of Federal spending. "The Federal Government has come to dominate both the demand for the products and services of some industries and investment in these industries. As a consequence, changes in the rate of Government expenditures result in alterations in the demand for manpower—including scientific and other professional workers, who play a disproportionate role in the output of goods and services in which the Government has a particular interest. Forced to respond quickly to external threats or shifts in domestic priorities, the Federal Government has been directly and indirectly responsible for large-scale fluctuations in the demand for manpower."

Effect on regions. "In addition to the adverse effects on individuals displaced by cutbacks in the defense and space programs in the late 1960's and early 1970's, another relevant dimension of Government contracting policies and procedures was made evident by experience during this period. When industries doing business with the Government are heavily concentrated in a particular region or regions, and especially when the contractors' employees account for a large percentage of the local labor force (as in Seattle, Wash., or Huntsville, Ala.), a sharp reduction in Federal expenditures can have a serious impact on the community."

Program slippage. "Since support for the Federal research and educational effort is distributed among

a number of departments and agencies and since the monitoring of prospective changes in the demand and supply of professional and technical manpower has never been effectively centralized, there is much room for slippage. For instance, generous support for graduate education in science was continued even after the growth in Federal expenditures for research and development began to level off. And Federal support for teacher education went on (under the National Defense Education Act and other legislation) when a decline in the demand for teachers was clearly imminent, on the basis of data and forecasts from the Bureau of the Census regarding the size of the school-age population."

Manpower consequences of policies. "A major challenge remains—to coordinate Federal programs from the viewpoint of their manpower consequences. The Government could improve its manpower planning and achieve a more effective manpower policy by establishing better mechanisms for assessing and coordinating the manpower implications of its policies in all major fields. Recognition of this problem has begun."

The 284-page *Manpower Report of the President, 1972,* is available from the Superintendent of Documents, Washington, D.C. 20402, for $2.25.

JANICE HEDGES AND DENIS JOHNSTON WIN THIRD LAWRENCE R. KLEIN AWARD

The trustees of the Lawrence R. Klein Fund have selected two articles that appeared in the *Monthly Labor Review* in 1971 for the third annual Lawrence R. Klein award. In naming two recipients, the trustees noted that "this year's *Review* contained a large number of very high quality articles."

Authors receiving awards were Janice Neipert Hedges for "A look at the 4-day work week," in the October issue and Denis F. Johnston for "The labor market twist, 1964–69," in the July issue.

The Hedges article examines the current status of the 4-day week, trends in work time, and the outlook for the spread of the 4-day work week in American industry. Mrs. Hedges is an economist in the Office of Economic Trends and Labor Conditions, Office of Data Analysis, Bureau of Labor Statistics.

Dr. Johnston's article explores the impact of rapid economic growth in the 1964–69 period on the relative employment and unemployment positions of workers in different age, race, and education groups. Dr. Johnston is the senior demographic statistician in the Bureau's Office of Employment Trends.

The Fund trustees also cited for honorable mention Jack Alterman, for "Blue-collar/white-collar pay trends: Compensation per man-hour and take-home pay," in the June issue, and John E. Bregger, for "Unemployment statistics and what they mean," in the November issue of the *Review.*

The Alterman article describes the conceptual differences between the two series of earnings and examines their different trends during the post-war period. Mr. Alterman is Assistant Commissioner, Office of Economic Trends and Labor Conditions, Bureau of Labor Statistics.

The Bregger article places unemployment rates in perspective, describing some common misconceptions about what the data represent, along with pointers on how to interpret them. Mr. Bregger is an economist in the Bureau's Office of Current Employment Analysis.

The Lawrence R. Klein award was established by friends of Lawrence R. Klein (editor-in-chief of the *Review* from 1946 until his retirement in 1968) to stimulate greater interest in original research dealing with economic and social statistics. The annual award, which carries a prize of $100, is based on the following criteria: Originality of ideas or method of analysis, adherence to principles of scientific inquiry, and adherence to the principles of good writing.

The first annual award (1970) went to Mollie Orshansky of the Office of Research and Statistics, Social Security Administration, for her article on "How poverty is measured." In 1971 the award was presented to Hyman B. Kaitz for his article on "Analyzing the length of spells of unemployment." Mr. Kaitz is Assistant Commissioner for Current Employment Analysis, Bureau of Labor Statistics.

Marital and family characteristics of the labor force

Special Labor Force Report shows that married women accounted for a smaller share of the labor force growth in the year ending in March 1971 than in the past decade

ELIZABETH WALDMAN AND KATHRYN R. GOVER

MARRIED WOMEN, who had registered large gains in the labor force through most of the 1960's, constituted only a small part of the increase in the labor force over the year ending in March 1971. Single men led the annual rise, as cutbacks in the military draft and a steady flow of returning veterans helped boost the number of single men in the civilian population.

Single men accounted for 43 percent of the annual increase in the labor force, and married women accounted for 16 percent, down from 30 to 45 percent in recent years. Over the year, the number of married men in the labor force did not change significantly, but their labor force participation rate fell to the lowest recorded (86 percent) in 25 years. These changes took place in a year in which the overall labor force rose by a modest 975,000, less than half the increase of the previous year. (See table 1.)

This article, based on annual nationwide surveys of the marital and family characteristics of workers, examines labor force participation of minority races, married women with children, women who head families, and other groups in the population. The article also analyzes unemployment of persons who head families.[1]

Participation rates

Minority races. In March 1971, the labor force participation rate for men of Negro and other minority races continued to be lower than the rate for white men.[2] (See table 2.) This relationship, which has obtained for many years, is due partly to the different marital composition of the two groups of men. Single, divorced, separated, or widowed men usually have considerably lower participation rates than married men. Since a greater proportion of Negro men are not married, their overall participation rate is lower than that for white men. About one-third of all Negro men were single in March 1971 compared with one-fourth of all white men. The proportion of all Negro men who were divorced, widowed, or separated was nearly twice that of white men.

Unlike the case of men in the minority races, the overall labor force participation rate for Negro women was, as in the past, higher than the rate for white women. Another difference is that Negro married women have had high participation rates than white married women. To a lesser degree this also was true for women who were divorced, widowed, or separated. The participation rates for single Negro women have been consistently lower than the rates for single white women.

The difference between the participation rates of women in the white and minority races, which had been shrinking slowly through the 1950's and early 1960's, dropped considerably during the last half of the 1960's. From 1961 to 1971, the participation rate for Negro women edged up from 48 to 49 percent, while the rate for white women rose from 37 to 42 percent.

Several elements are responsible for this narrowing of the differential. In the latter 1960's, the proportion of Negro women who were single spurted upward. The larger share exerted a downward pull on the overall rates because worker rates for single Negro women were lower than for those who were married. At the same time, the proportion of white women who were single inched up, not materially affecting the overall rate for white women. Moreover, the labor force rate for widowed, divorced, or separated women decreased from 49 percent in 1967 to 43 percent in 1971 for Negro women, while the rate for white women in this category

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remained unchanged.

Underlying the higher concentration of Negro single persons in the labor force are trends in population growth.[3] Because of higher post-World War II fertility rates, the minority races have a greater concentration of teenagers and young adults than has the white race. During the 1960's, the Negro population 18 to 24 years old grew roughly 5 times as fast as the white population of the same ages. Moreover, the persistence of higher fertility rates for Negroes indicates that the population and labor force will continue to be younger for Negroes than for whites during the 1970's.

Married women. As stated earlier, married women (husband present) accounted for very little of the overall annual increase in the civilian labor force. Their labor force participation rate of 41 percent was unchanged over the year. Also failing to increase were the number and proportion of married women in the labor force who had school and preschool age children. (See table 3.) This lack of growth may be only temporary, stemming from the difficulty of finding jobs during a period of high unemployment. In March 1971, the unemployment rate for married women was 5.9 percent, the highest recorded since the recession of 1961, when it was 7.0 percent. As in other years, unemployment rates in March 1971 were highest for mothers of the youngest children—11.7 percent for wives with children under age 3; 8.3 percent, with children 3 to 5; and 5.2 percent for those with children 6 to 17 years old.

During the latter half of the 1960's, the magnitude of the increases in the labor force participation rates of young wives with or without children was affected by such elements as growth of job opportunities, an increase in the number of newlyweds who preferred two salaries in a period of rising prices, and declining fertility rates. Since 1966, the number of wives 20 to 24 years old in the population grew by about 14 percent, while the number in

Table 1. Employment status of persons 16 years old and over, by marital status, sex, and color, March 1970 and March 1971

[Numbers in thousands]

Marital status, sex, and color	March 1970						March 1971					
	Total population	Labor force					Total population	Labor force				
		Total [1]		Employed	Unemployed			Total [1]		Employed	Unemployed	
		Number	Percent of population		Number	Percent of labor force		Number	Percent of population		Number	Percent of labor force
ALL PERSONS												
Men	66,193	51,621	78.0	48,379	2,081	4.0	67,678	52,150	77.1	47,978	3,008	5.8
Married, wife present	45,055	39,138	86.9	37,103	1,020	2.6	45,443	39,058	85.9	36,620	1,441	3.7
Married, wife absent	1,729	1,065	61.6	983	70	6.6	1,864	1,239	66.5	1,103	121	9.8
Widowed	2,110	673	31.9	624	48	7.1	1,995	573	28.7	552	21	3.7
Divorced	1,577	1,200	76.1	1,117	74	6.2	1,829	1,317	72.0	1,195	115	8.7
Single	15,722	9,545	60.7	8,552	869	9.1	16,547	9,963	60.2	8,508	1,310	13.1
Women	73,261	31,233	42.6	29,581	1,652	5.3	74,580	31,681	42.5	29,515	2,166	6.8
Married, husband present	45,055	18,377	40.8	17,497	880	4.8	45,443	18,530	40.8	17,445	1,085	5.9
Married, husband absent	2,730	1,422	52.1	1,325	97	6.8	2,888	1,456	50.4	1,307	149	10.2
Widowed	9,640	2,542	26.4	2,463	79	3.1	9,788	2,516	25.7	2,423	93	3.7
Divorced	2,695	1,927	71.5	1,823	104	5.4	2,829	1,992	70.4	1,852	140	7.0
Single	13,141	6,965	53.0	6,473	492	7.1	13,632	7,187	52.7	6,488	699	9.7
NEGRO AND OTHER RACES												
Men	7,087	5,169	72.9	4,738	330	6.4	7,281	5,227	71.8	4,674	450	8.6
Married, wife present	3,757	3,264	86.9	3,045	123	3.8	3,772	3,215	85.2	2,958	163	5.1
Married, wife absent	542	347	64.0	325	21	6.1	541	366	67.7	328	34	9.3
Widowed	322	114	35.4	108	6	5.3	283	98	34.6	95	3	3.1
Divorced	224	155	69.2	148	7	4.5	230	149	64.8	132	17	11.4
Single	2,242	1,289	57.5	1,112	173	13.4	2,455	1,399	57.0	1,161	233	16.7
Women	8,120	3,935	48.5	3,614	321	8.2	8,365	4,007	47.9	3,596	411	10.3
Married, husband present	3,783	1,986	52.5	1,854	132	6.6	3,760	1,975	52.5	1,823	152	7.7
Married, husband absent	981	527	53.7	477	50	9.5	984	488	49.6	426	62	12.7
Widowed	1,128	351	31.1	336	15	4.3	1,124	312	27.8	301	11	3.5
Divorced	363	257	70.8	245	12	4.7	435	295	67.8	277	18	6.1
Single	1,865	814	43.6	702	112	13.8	2,062	937	45.4	769	168	17.9

[1] The male labor force includes members of the Armed Forces living off post or with their families on post, not shown separately.

the labor force increased by 40 percent. In 1966, 38 percent of all married women these ages were in the work force; in March 1971 the proportion was 47 percent.

Fertility, education, age of children, and husband's income are important, and often interrelated, determinants of a married woman's participation in the work force. The pronounced inverse relationship between labor force participation and fertility is shown in the following tabulation of children born during the lifetime of women ever married, age 35 to 44, as of 1969:

	Children per thousand women ever married
All women	3,141
In labor force	2,876
Employed	2,852
Full time	2,667
Part time	3,160
Unemployed	3,424
Not in labor force	3,388

Fertility was lower for women in the labor force than for those not in the labor force and for women who held full-time rather than part-time jobs.[4]

The same inverse relationship held between educational attainment and fertility. Generally women with the least education had the highest fertility. As of 1969, the number of children born during the lifetime of women ever married, 35 to 44 years old, ranged from 4.16 for women who had completed less than 8 years of school to 2.90 for high school graduates and to 2.73 for college graduates.

Educational attainment of women, as measured in years of schooling completed, is closely related to their rate of labor force participation. The more education women have, the more likely they are to be in the labor force; and the more education employed women have, the higher their earnings.

Over half of those married women who completed 4 years of college were in the labor force in March 1971. Among wives who were high school graduates, 44 percent were in the labor force, compared with 33 percent of those who completed 11 years of school or less, partly reflecting the high proportion of these latter women in older age groups. Within each income and family category, college graduates had the highest participation rates.

Women as family heads

In the first half of the 1960's, the number of families headed by women grew at about the same rate as all others, and they accounted for about 10 percent of all American families. This proportion began to inch upward in the latter 1960's, and by March 1971 it was 11.5 percent. During the year ending in March 1971, an unusually large number of families headed by women were added to the population (375,000) and labor force (270,000). These additions brought the totals to 6 million families; 54 percent of the women who headed them were in the labor force. The unemployment rate for these women stood at 7.1 percent, up from 5.6 percent in March 1970, and the highest rate since 1961.

The large increment in the number of female-headed families in 1970–71 was due to divorces and separations, rather than deaths of husbands. The number of widowed family heads in the population

Table 2. Population and labor force, by race and marital status, March 1967 and 1971

Sex and marital status	March 1967		March 1971	
	White	Negro and other races	White	Negro and other races
MEN	Percent distribution of population			
Total	100.0	100.0	100.0	100.0
Married, wife present	70.5	55.7	69.0	51.8
Single	21.6	27.9	23.3	33.7
Other marital status [1]	7.9	16.4	7.7	14.5
	Labor force participation rate			
Total	78.5	74.3	77.7	71.8
Married, wife present	86.9	87.2	86.0	85.2
Single	60.2	56.3	60.8	57.0
Other marital status [1]	53.3	61.5	54.3	58.2
	Percent distribution of labor force			
Total	100.0	100.0	100.0	100.0
Married, wife present	78.0	65.3	76.4	61.5
Single	16.6	21.1	18.3	26.8
Other marital status [1]	5.4	13.6	5.4	11.7
WOMEN	Percent distribution of population			
Total	100.0	100.0	100.0	100.0
Married, husband present	63.9	48.9	63.0	44.9
Single	16.5	19.4	17.5	24.6
Other marital status [1]	19.6	31.7	19.6	30.4
	Labor force participation rate			
Total	38.7	47.4	41.8	47.9
Married, husband present	35.8	47.8	39.7	52.5
Single	51.7	43.8	54.0	45.4
Other marital status [1]	37.5	49.0	37.6	43.1
	Percent distribution of labor force			
Total	100.0	100.0	100.0	100.0
Married, husband present	59.0	49.3	59.8	49.3
Single	22.0	17.9	22.6	23.4
Other marital status [1]	19.0	32.8	17.6	27.3

[1] Includes widowed, divorced, and married, spouse absent.

Table 3. Labor force participation rates[1] of married women, husband present, by presence and age of children, March 1960–March 1971

Year	All wives	No children under 18 years	With children under 18 years				
			Total	6 to 17 years only	Under 6 years		
					Total	3 to 5 years, none under 3 years	Under 3 years
1960	30.5	34.7	27.6	39.0	18.6	25.1	15.3
1961	32.7	37.3	29.6	41.7	20.0	25.5	17.0
1962	32.7	36.1	30.3	41.8	21.3	27.2	18.2
1963	33.7	37.4	31.2	41.5	22.5	28.5	19.4
1964	34.4	37.8	2.0	43.0	22.7	26.7	20.5
1965	34.7	38.3	32.2	42.7	23.3	29.2	20.0
1966	35.4	38.4	33.2	43.7	24.2	29.1	21.2
1967	36.8	38.9	35.3	45.0	26.5	31.7	23.3
1968	38.3	40.1	36.9	46.9	27.6	34.0	23.4
1969	39.6	41.0	38.6	48.6	28.5	34.7	24.2
1970	40.8	42.2	39.7	49.2	30.3	37.0	25.8
1971	40.8	42.1	39.7	49.4	29.6	36.1	25.7

[1] Labor force as percent of population.

did not change between March 1970 and March 1971, while the number divorced or separated increased by about 335,000. In 1970, the national divorce total (an all-time peak of 715,000) was nearly 75 percent above the 1962 level, with two-thirds of the increase occurring since 1967.[5]

The chance for divorced and separated women to be in the labor force is generally much greater than for wives or widows. In March 1971, 70 percent of all divorcees, including those who were not family heads, and 50 percent of all separated women were in the labor force, compared with about 41 percent of all wives and only 26 percent of all widows.

Among the most obvious elements that account for the differences in labor force rates are the presence and age of children, and the need for self support. In March 1971, the proportion of divorcees with preschool age children (13 percent) was considerably lower than for married (20 percent) or separated women (24 percent). Even so, with children under 6 years old, divorcees had a much greater labor force participation rate—62 percent—than the other mothers of young children—30 and 41 percent, respectively—suggesting that many either receive no child support payments or find them insufficient.

Unemployment

Between March 1970 and March 1971, the economy did not provide enough jobs to absorb the smaller-than-usual increase in the labor force, and unemployment rose.

Single persons. Single men and women, whose unemployment rates usually exceed those of persons in other marital groups, registered the highest unemployment rates in March 1971. The jobless rate for single men was 13.1 percent; for single women, 9.7 percent; and for single persons of Negro and other races, a towering 17.2 percent.

Youthfulness of single labor force participants and the substantial proportion of these young persons still in school partially explain the high unemployment rates. Two-thirds of the single men and women in the labor force are under 25 years old, and approximately 40 percent of these are students. For students, the ability to find a job is hampered by limitations on the hours they are free to work and on location.

Husband-wife families. Joblessness among men who head families rose over the year by 380,000 to 1,350,000 in March 1971, and their unemployment rate, at 3.5 percent, was the highest since the mid-1960's. (See table 4.) The higher rate represented increases in job losses rather than voluntary job leaving. Unemployment rates for the family's primary breadwinner began to rise as economic activity wound down during 1970. The number of these men who worked less than a full year had increased

Table 4. Employment status of family head in husband-wife families and labor force status of wife and other family members, March 1969–March 1971

Labor force status and relationship to head	1969, total	1970, total	1971		
			Total	White	Negro and other races
HEAD EMPLOYED					
Number (thousands)	37,523	37,667	37,146	34,196	2,950
Percent distribution	100.0	100.0	100.0	100.0	100.0
Wife or other member in labor force	51.8	53.1	53.4	52.5	63.7
Wife only in labor force	33.4	34.3	34.5	33.5	45.8
Wife and other member in labor force	8.9	9.3	9.1	8.9	11.1
Other member only in labor force	9.5	9.4	9.8	10.0	6.8
Neither wife nor other member in labor force	48.2	46.9	46.6	47.5	36.3
HEAD UNEMPLOYED					
Number (thousands)	621	972	1,350	1,197	153
As percent of heads in labor force	1.6	2.5	3.5	3.4	4.9
Percent distribution	100.0	100.0	100.0	100.0	100.0
Wife or other member in labor force	51.7	56.1	57.2	56.2	64.7
Wife only in labor force	36.2	41.8	41.2	39.8	51.6
Wife and other member in labor force	8.3	7.6	10.5	10.8	8.5
Other member only in labor force	7.2	6.7	5.5	5.6	4.6
Neither wife nor other member in labor force	48.3	43.9	42.8	43.8	35.3

by 14 percent from 1969 to 1970, to 8.1 million. The proportion who gave unemployment as a major reason for having worked part year in 1970 increased to 45 percent from 36 percent in 1969. Among the other reasons given were illness and retirement.

Long-term unemployment and part-time work for involuntary reasons rose over the year. In March 1971, one-third of all unemployed husbands had been looking for work 15 weeks or more; a year earlier, one-fifth had been jobless that long. About 485,000 employed husbands who usually worked 35 hours or more (full time) on jobs in nonagricultural industries were working part time in March 1971 because of slack work or for other economic reasons.

Rising unemployment among family heads, both men and women, affected median family income. Family income in 1970, by employment status of family head and presence of children in March 1971, is shown in table 5.

Compared with the families headed by jobholding men or women, the families whose chief provider was unemployed had considerably lower levels of living, on average, whether they were young families with small children or older ones with no school or preschool age children at home. Obviously, women whose husbands are unemployed have a greater economic need to work. In March 1971, half of the wives of unemployed men were in the labor force compared with 44 percent of the wives of employed men. The jobless rate of women with unemployed husbands, typically 2.5 to 3 times the rate of wives with employed husbands, was 14.5 percent, compared to 5.6 percent for women with employed husbands.

When wives with unemployed husbands do work during the year, their relative contribution to family income is apparently substantially higher than that of the working wives of employed men. Among fathers unemployed in March 1971, median family income in 1970 was $9,945 if a wife was in the labor force, 44 percent more than the $6,900 if she was not. In contrast, for employed fathers, median family income was $12,625 if a wife was working, only 16 percent more than the $10,840 if she was not working.

Despite the increase in unemployment among married men over the year, the overall relative contribution a working wife made to family income did not change and was about the same as it has been for at least a decade. In 1970, the median proportion of income contributed by the wife's earnings was 27 percent, ranging from 39 percent for wives who had worked full time all year to 16 percent for those who worked less than a full year or all year at part-time jobs. About half of all working wives supplied between 20 and 50 percent of their family's income, while only 2 percent supplied 75 percent or more. Median family income in 1970 was about $9,175 when the wife did not work, $11,940 if she worked at all, and $13,960 if she worked all year at a full-time job. □

Table 5. Median family income in 1970, by employment status of family head and presence and age of children, March 1971

Presence and age of children	Husband-wife families		Families with female head	
	Employed	Unemployed	Employed	Unemployed
Total	$11,567	$8,510	$6,450	$3,680
No children under 18 years	11,370	8,570	8,010	(1)
With children 6 to 17 years	12,990	10,580	6,240	4,050
With children under 6 years	10,100	7,210	4,470	2,820

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

FOOTNOTES

[1] This article is based primarily on information from supplementary questions in the March 1971 monthly survey of the labor force, conducted for the Bureau of Labor Statistics by the Bureau of the Census through its Current Population Survey. Most of the monthly data presented here relate to the population 16 years old and over, including inmates of institutions and those members of the Armed Forces living off post or with their families on post (1,164,000 in March 1971). Sampling variability may be relatively large in cases where numbers are small. Therefore, small differences between estimates or percentages based on them should be used and interpreted with caution.

This is the 13th in a series of reports on this subject. The most recent contained data for March 1970 and was published in the *Monthly Labor Review*, March 1971, pp. 46–50. It was reprinted with additional tabular data and an explanatory note as Special Labor Force Report No. 130.

[2] Unless otherwise indicated, data for all persons other than white are used in this report to represent data for Negroes, since the latter constitute about 92 percent of all persons other than white in the United States.

[3] See *Summary of Demographic Projections, Current Population Reports, Population Estimates,* U.S. Bureau of the Census, Series P–25, No. 388, March 14, 1968, pp. 8–10.

[4] See *Fertility Indicators: 1970,* U.S. Bureau of the Census, Series P–23, No. 36, April 16, 1971, pp. 53–56.

[5] See *Monthly Vital Statistics Report, Annual Summary, 1970,* Public Health Service, Vol. 19, No. 13, September 21, 1971.

Working women and the division of household tasks

With an increasing number of women in the labor force, attention focuses on how they handle their family responsibilities

JANICE NEIPERT HEDGES AND JEANNE K. BARNETT

WOMEN WITH FAMILY RESPONSIBILITIES are entering the labor force in increasing numbers. In the population as a whole, the proportion of women who are married has remained stable over the past 20 years, at about 60 percent. In the same period, however, the proportion of women workers who are married has risen by 10 percentage points, to 59 percent. While much of this increase is among married women without children, the number of working women with children has increased also. By 1971 one-third of the women in the labor force had both husbands and dependent children.

These increases, along with "women's liberation" and its call for a new look at traditional roles in the family and in the workplace, have focused increased attention on the ways in which family responsibilities are handled in homes where both husband and wife are employed outside the home. Against a background of selected data on American working women,[1] this article reports on a number of surveys that show how—and how much—women with jobs share their household tasks with other members of their families.

Family responsibilities of working women

In all, about 65 percent of the women in the labor force in March 1971 (about 20.6 million women) were living with husbands or dependent children,[2] or both. (See table 1.) In addition, substantial though unknown numbers had parents or other relatives living with them.

Husband-wife families with children and working wives averaged about 2.2 children.[3] Working mothers who headed fatherless families averaged 2.1 children. One-tenth of the white women who headed families and almost one-fourth of the black women had four children or more:

	White	*Negro*
Number (in thousands)	1,397	563
Percent distribution, by number of children:		
Total	100	100
1 child	45	39
2 children	33	22
3 children	13	15
4 children	7	10
5 children or more	3	14

An important indicator of the extent and nature of a mother's responsibilities toward her children is their age. Almost a third (31 percent) of mothers with preschool children were in the labor force in March 1971, compared with over half (52 percent) of mothers with only schoolage children.[4] The difference is largely explained by preschoolers needing more constant parental attention and care. Moreover, as children grow older, current and future needs for funds for education and training draw more mothers into the labor force. Whatever their husbands' incomes, mothers of preschool children are less likely to be in the labor force than mothers of schoolage children. (See table 2.)

Working women with particularly heavy family responsibilities include mothers who head families[5] or whose husbands are low earners or not employed. About 2.0 million of the mothers who were in the labor force in March 1971 were heads of families. About nine-tenths of them were divorced, separated, or widowed; the balance were single women. During the past decade, the number of all families headed by women with children increased by 33 percent (or .9 million), compared with an increase of only 7 percent (1.6 million) in husband-wife families with children.[6]

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This article is based on a paper prepared under the auspices of the U.S. Women's Bureau at the request of the United Nations Commission on the Status of Women.

In March 1971, 2.1 million wives in the labor force had husbands who were not working; 1.4 million of these husbands were not in the labor force because of age, disability, illness, or other reason. The remainder were unemployed.

For about 2.0 million of the wives who were working in March 1971, their husbands' incomes the previous year had been less than $3,000; for another 2.2 million, their husbands' earnings had ranged from $3,000 to $5,000.

Racial minorities

Of all women in the labor force in March 1971, a larger proportion of minority[7] women than white women had dependent children (44 and 37 percent, respectively); and a smaller proportion had a husband living at home (49 and 60 percent, respectively).

In all, about .8 million of the black and other minority women who were in the labor force in March 1971 were heads of families. But even in husband-wife families, women of the minority races are more likely to carry heavy financial responsibilities. Negro men are more vulnerable than white men to unemployment, more likely to be out of the labor force because of disability or illness, and more likely, even if working year round full time, to have low earnings.[8]

Sharing of household duties

Working women with families must achieve a balance between commitment to their jobs and to their responsibilities at home. Many working wives and mothers have difficulty finding sufficient time for the myriad of tasks associated with home and family. A number of surveys have sought out the various ways in which these responsibilities are accommodated.

Table 1. Number and distribution of women in the labor force living with husbands or dependent children, or both, March 1971

Presence of husbands or children	Number (in thousands)	Percent distribution
Total female labor force	31,681	100
With husband or children	20,633	65
Husband and children	10,098	32
Husband only	8,432	27
Children only	2,103	7
Without husband or children	11,048	35

NOTE: Numbers may not add due to rounding.

Table 2. Labor force participation of mothers, by presence and age of children, March 1971, and by income of husband in 1970

Presence and age of children	Husband's income in 1970				
	Under $3,000	$3,000–4,999	$5,000–6,999	$7,000–9,999	$10,000 and over
Number (in thousands):					
With children 6–17 only	376	576	947	1,904	2,623
With children under 6	268	441	772	1,223	965
Participation rates:					
With children 6–17 only	52	56	58	55	43
With children under 6	36	35	36	32	22
Difference	16	21	22	23	21

Household tasks or duties are variously defined. They may include, for example, chauffeuring of children and teacher conferences. Activities such as sewing and flower arranging illustrate another difficulty—that is, drawing the line between household tasks and leisure time pursuits. Umpiring a Little League game or taking children to a museum might be classified as child care or as recreation.

Measurement of time spent at household tasks also presents a problem, since more than one task may be carried on simultaneously, and the time spent on a particular task may be fragmented into short irregular units of time. Since there are no productivity norms for household tasks, judgments as to time required and time spent must be highly subjective.

The sharing of household tasks was surveyed in 1,300 husband-wife families of varied socioeconomic status in Syracuse, N.Y., and its suburbs in 1967–68.[9] The results indicate that wives employed more than 30 hours a week spent, on the average, 34 hours a week or almost 5 hours a day on household tasks. Women who were not employed reported spending 57 hours a week on household tasks. Thus, the working wives apparently substituted 30 hours or more on the job for 23 hours of household work. The survey did not reveal whether the same "output" of household work was accomplished in the lesser time, or whether (and which) household tasks were truncated or given up entirely.[10]

Paid and volunteer work plus household work in these Syracuse families averaged 63 hours a week for women and 64 hours for men. Husbands averaged about 1.6 hours a day on household jobs, whether or not their wives worked. Teenagers whose mothers were employed 15 hours or more a week (and who had no younger brothers or sisters) worked an average of 2.7 hours a day on household jobs. This constituted nearly 30 percent of the total time

spent by the family on household work. Those whose mothers were employed less than 15 hours a week (including those whose mothers were not employed) contributed on the average 20 percent of the time the family spent on household duties. In this group, at least, it would appear that when a mother takes a job, a portion of her chores are shifted to her children rather than to her husband.

A study of time budgets in 44 metropolitan areas in the United States in 1965–66[11] found that the total time spent by married workers on paid work, commuting to work, housework, and family tasks averaged 66.5 hours a week for men and 71.4 hours for women. Married men spent 2 hours a day more than married women, on the average, at paid work and commuting, but 2.7 hours less on housework and family tasks. Among working couples with children, fathers averaged 1.3 hours more free time[12] each weekday and 1.4 hours more on Sunday than mothers. Among childless married couples both of whom were employed, husbands averaged .7 hours more free time a weekday and 1.1 hours more on Sunday than wives.

Roles of family members

Family work roles of men and women may have changed less than has often been suggested. The Syracuse study mentioned earlier found that wives did most of the inside work, while husbands did home maintenance and yard work. Husbands helped with marketing, recordkeeping, and child care.

In families in which the wife is employed in a profession that requires a high level of education, the division of home tasks seems to follow that in families in which she is employed in less skilled occupations. A case study was made of 20 couples in the Boston-Amherst area in 1968–69, all of them with wives employed in a profession that typically requires a doctorate.[13] As in other families, wives were more likely than husbands to prepare dinner, shop for groceries, and do the laundry, while husbands were more likely to do repairs and heavy yard work and to empty garbage and trash. Cooking breakfast and washing dishes were most often shared. Mothers were assisted by their husbands or by hired help, or both, in child care. Usually either husband or wife had full responsibility for keeping accounts, paying bills, and figuring taxes.

Children played a very small role in household tasks in these families in which the mother worked in a highly skilled profession. Household help generally was hired on a regular basis, particularly for ironing and cleaning.[14]

Obstacles to employment

Paid employment cannot always be reconciled with family responsibilities. An unemployment rate in March 1971 of 7.0 percent for married women (husbands present) with children, compared with a rate of 4.5 percent for those without children, indicates difficulties in reconciling the needs of children with the needs of employers. The exceptionally high unemployment rate for mothers of preschoolers (10.2 percent) suggests the special problems this group faces in locating or holding jobs compatible with their home responsibilities.

Family responsibilities are a major factor also in a woman's decision to leave her job or not to seek work. In 1970, of the 6.5 million women who had stopped working during the previous 12 months, over half cited home or school responsibilities as the reason.[15] About one-third of the 2.7 million women who wanted a job but were not seeking employment also cited home responsibilities.[16]

Married women workers who are employed full time, year round are likely to have lesser family responsibilities than those employed part time or part year. For example, in 1970, 44 percent of the former, but 65 percent of the latter, had dependent children. Similarly, only 12 percent of those employed full time, year round had children under 6, compared with 31 percent of the part-time or part-year workers.

Some typical difficulties

Surveys of the attitudes of working women and the extensive literature on the subject suggest several areas in which women commonly experience difficulty in combining employment with home responsibilities.

Isolation of families. The predominance of "nuclear families"—that is, families composed only of parents and dependent children—generally precludes the sharing of household duties and child care with grandparents or other adult relatives. In March 1971, relatively few households included a nonemployed adult woman in addition to a working mother; in the case of a working mother with dependent children, 1 out of 15, and if the children were under 6, only 1 out of 25.

Task sharing. According to a Harris public opinion survey, in 1970,[17] many women feel the need for more help with household and family tasks. Almost half the working women polled felt that men should do more repair work, and more than one-third felt they should help more with childcare, cleaning, and shopping. About one-fourth of the working women surveyed wanted men to help more with dishwashing.

Child care. Lack of adequate care for the children of working mothers is not only a serious obstacle to the employment of women, it is a matter of social concern as to the welfare of the children. Results of a national survey of child care arrangements made by mothers who worked 27 weeks or more (full time or part time) in 1964 and who had children under 14 years of age[18] are shown in table 3. Eight percent of these children looked after themselves.

A nationwide survey of day care in 1970[19] reported that day care was an institution lagging far behind the social change that brought about the need for it. According to the survey, over 350,000 working mothers in families with incomes of less than $8,000 reported they were very dissatisfied with their child care arrangements. Another estimated 750,000 mothers in families at this income level found lack of child care an obstacle to their employment.

An interview survey of 6,000 welfare recipients in 1970[20] revealed that 9 out of 10 of the mothers who were working at the time of the survey believed that their children were being cared for adequately, while only 3 out of 5 of those not working believed that their children would be adequately cared for if they went to work. About three-fifths of the white mothers on welfare and half of the black mothers preferred to be at home because they believed their children needed them there. Over one-fourth of the white and one-fifth of the black mothers gave the need to care for their children as a reason for leaving their last job.

Table 3. Child care arrangements made by mothers working 27 weeks or more, with children under 14 years, 1964

Type of arrangement	Percent distribution
Total	100
Cared for by mother [1]	28
Cared for at home by other than mother	46
Cared for away from home	18
Group care	2
Other	16
No care	8

[1] Mother either cared for the children while working or worked only during their school hours.

Work schedules and practices. Present schedules and practices do not easily accommodate to family responsibilities. Opportunities for part-time work, for example, still fall short of the needs of working women. In the case of professional workers, part-time work may be associated with a reduction in status.

Sickness in the family and other family emergencies that may require a parent's presence are not routinely acceptable reasons for absence from work with—or without—pay. For some women, the problem is not only the absolute number of hours worked, but the inability to adjust work schedules to the demands of home. For example, lunch breaks may not be long enough to permit mothers to go home at lunchtime even though their school children are sent home at noon.

Transportation. Lack of convenient transportation sometimes impedes the meshing of home and work responsibilities, especially for part-time workers. Public transportation often is inadequate and erratic in off-peak hours, while in many urban areas parking space is scarce by midmorning.

The effect of role-attitudes. Husbands and wives often hold different views of women's role in marriage and in society, and these views are sometimes obstacles to employment. Studies of the labor force experience of women showed a strong correlation between husbands' attitudes and their wives' anticipation of labor force activity.[21] For example, of white married women under 25 years of age whose husbands had positive attitudes toward their working, two-thirds indicated they would accept a job offer. Of those whose husbands had strong objections, only one-fifth said they would work. The pattern for blacks was similar, but the sample was too small to generalize. Among white married women aged 30-44, women who reported that their husbands strongly favored their working were three times as likely to have permissive views about working as those whose husbands opposed their working. The relationship was even stronger among black women.

One-fourth of all married women age 30-44 were described as having permissive attitudes toward the employment of mothers with schoolage children, while two-fifths had ambivalent attitudes and slightly more than one-third were opposed. Black women

were half again as likely as white women to have permissive attitudes, and white women were 50 percent more likely than blacks to be opposed. The attitudes of husbands toward their wives working is the factor most strongly associated with the women's attitudes toward the employment of mothers.

A small study of couples where all the wives and most of the husbands were employed in professional occupations found that the women generally felt it possible to combine a profession and marriage as long as the husband was not threatened by his wife's capabilities and achievements, as long as he viewed it as adding to his stature and not as diminishing it, and as long as the wife was not ambivalent toward her role. Nonetheless, these wives were found to have limited their career ambitions in order to promote the smooth running of their homes.[22]

Solutions

The following suggestions to better accommodate the needs of working women with family responsibilities have been compiled from attitudinal surveys and other literature.

Day care. One of the most frequently mentioned needs is more day care facilities providing adequate services at feasible prices. The Administration-initiated welfare reform legislation now before Congress authorizes $700 million to provide child care opportunities for 875,000 children.

Some groups, maintaining that child care is a legitimate business expense, have long advocated extension of tax allowances for such expenses to workers at all income levels. Recent tax reform legislation substantially liberalized allowed deductions. Previously, U.S. tax laws allowed a working woman a maximum deduction of $600 for child care expenses for one child under 13 years and $900 for two or more. In order to claim the deduction, married women were required to file a joint return with their husbands and any deduction was reduced $1 for each $1 of combined adjusted gross income exceeding $6,000.

The new law permits a maximum deduction of $400 a month for care in the home of a child under 15 years. In the case of child care outside the home, up to $200 of the $400 may be used for one child, up to $300 for the care of two children, and up to $400 for the care of three children or more. The deduction is available to a single taxpayer whose annual adjusted gross income is not over $18,000 and to married taxpayers who file a joint return if the combined annual adjusted gross income is not over $18,000. The deduction is reduced by 50 cents for each dollar of income above $18,000.

Upgrading household employment. Still another means that has been suggested to promote the smooth running of households in a nuclear family situation where the wife is employed outside the home is upgrading household employment to attract more workers into that occupation. Experimental and demonstration projects in the late 1960's funded by the U.S. Department of Labor indicated that trained household employees can provide needed services that command decent wages and good working conditions.

More efficient home management. Planning and organizing housework, utilizing labor-saving devices and convenience products, determining priorities, and taking a relaxed attitude toward chores of lesser importance have also been suggested as ways to reduce the demands of housework.

Adaptable work rules. The development of more part-time jobs has been suggested, as well as time off without loss of pay for such child-related activities as teacher conferences, doctor visits, or similar obligations,[23] and liberal maternity leave.

Recognition of life-cycle pattern. The problems of working women can be eased if employers (as well as educational and training institutions) come to accept and make provision for interrupted education and employment patterns.

Fuller sharing of family responsibilities. A more egalitarian family style, one in which the careers of husband and wife are equally important and the burdens of household tasks and child care are equally shared, has been pointed out as a way to enable more women to cope with responsibilities at home and on the job. □

FOOTNOTES

ACKNOWLEDGMENTS: Task force members charged with responsibility for preparing the report to the United Nations included Isabelle Streidl, chairman, Kay Wallace, Mary G. Kramer, Women's Bureau, and Stuart Garfinkle, Manpower Administration. Louise Harned, Office of Policy, Evaluation, and Research, Carol Milner, Marion Hester, and Rod Solomon, Bureau of Labor Statistics, and Paula Howland and Joel Margolis, Women's Bureau, also contributed to the report.

[1] For further detail, see Elizabeth Waldman and Kathryn R. Gover, "Marital and family characteristics of the labor force," pp. 4–8, this issue.

[2] The terms "dependent children" and "children under 18" are used interchangeably in this article. Throughout, "mothers" refers only to those with dependent children, and "children" refers only to dependent children.

[3] For further information on the children of working women, see Elizabeth Waldman, "Children of women in the labor force," *Monthly Labor Review,* July 1971, pp. 19–25.

[4] Following the usual practice, school age is defined as 6 to 17 years.

[5] Includes those who are legally separated, those whose husbands are absent for military service or other reasons, and single women.

[6] The labor force participation rates of mother without husbands reflect their financial responsibilities. In March 1971, 69 percent of all divorcees with children and 52 percent of all widows with children were in the labor force, compared with 40 percent of all mothers with husbands present. See also Robert L. Stein, "The economic status of families headed by women," *Monthly Labor Review,* December 1970, pp. 3–10.

[7] Includes Negro, American Indian, and Oriental. Negroes constituted more than nine-tenths of this part of the population.

[8] For a further discussion of earnings and income differentials by race, see Robert L. Stein and Janice N. Hedges, "Blue-collar/white-collar pay trends: Earnings and family income," *Monthly Labor Review,* June 1971, pp. 13–24.

[9] Kathryn E. Walker, "Time-use patterns for household work related to homemakers' employment," speech, Agricultural Outlook Conference, Washington, D.C., February 18, 1970.

[10] A report on Seattle, Wash., homemakers (based on a 20-percent response from a random sample of 1,200 homemakers) found that the average weekly hours spent on all home-associated tasks ranged from 39 for those who worked for pay 40 hours or more a week, to 54 for those who were not employed. See Florence Turnbull Hall and Marguerite Paulsen Schroeder, "Time Spent on Household Tasks," *Journal of Home Economics,* January 1970, pp. 23–29.

[11] John P. Robinson and Philip E. Converse, *Summary of U.S. Time-Use Survey* (Ann Arbor, University of Michigan, 1966), Survey Research Center Monograph.

[12] "Free time" was defined as time spent in resting, education, radio, television, reading, social life, conversation, walking, sports, and spectacles.

[13] Lynda Lytle Holmstrom, "Intertwining Career Patterns of Husbands and Wives in Certain Professions," Ph.D. dissertation (Brandeis University, 1970), prepared under a grant from the Manpower Administration. (PB 191917, National Technical Information Service, Springfield, Va.)

[14] Paid help has become less and less of an option for women workers. The ratio of private household workers to all women workers has steadily declined:

1940	.169
1950	.086
1960	.079
1970	.052

[15] Paul O. Flaim, *Employment in Perspective* (BLS Report 396, 1971).

[16] Unpublished data, Bureau of Labor Statistics.

[17] Virginia Slims, American Women's Opinion Poll, 1970, a study conducted by Louis Harris and Associates. The sample included both married and single women; 29 percent were working women.

[18] *Childcare Arrangements of Working Mothers* (Washington, Women's Bureau, U.S. Department of Labor, and Children's Bureau, U.S. Department of Health, Education, and Welfare, 1965).

[19] *Day Care Survey, 1970* (Washington, D.C., Westinghouse Learning Corp. and Westat Research, Inc., 1971).

[20] David L. Thompson and Guy H. Miles, *Self-Actuated Work Behavior Among Low-Income People* (Minneapolis, Minn., North Star Research and Development Institute, 1971).

[21] Herbert S. Parnes et al, *Years for Decision,* Vol. 1, and *Dual Careers,* Vol. 1 (Washington, U.S. Department of Labor, Manpower Administration, 1971). Another study, of men in blue-collar occupations, also indicates that the ease with which a wife carries out dual roles may be influenced by her husband's attitude. Harold Sheppard, *Who are the workers with the blues?* (Kalamazoo, Mich., W. E. Upjohn Institute for Employment Research, 1970).

[22] Margaret M. Poloma, "Role Conflict and the Married Professional Women," paper presented at the annual meeting of the Ohio Valley Sociological Society, 1970. See also Margaret M. Poloma and T. Neal Garland, "The Myth of the Egalitarian Family," paper presented at the annual meeting of the American Sociological Association, Washington, D.C., 1970.

[23] The collective bargaining agreement signed in 1967 between the Preway Co. (Wisconsin Rapids, Wis.) and the Office and Professional Employees International Union provides working mothers up to 40 hours a year off without loss of pay for such purposes.

IRRA Conference Papers

THE FOLLOWING EXCERPTS are adapted from papers presented to the Twenty-Fourth Annual Meeting of the Industrial Relations Research Association, December 27–28, 1971, in New Orleans, La.

The full text of all papers will appear in the forthcoming IRRA publication, *Proceedings of the Twenty-Fourth Annual Meeting,* available from the IRRA, Social Science Building, Madison, Wis. 53706.

UNIONS, DEVALUATION, AND FOREIGN TRADE

GEORGE H. HILDEBRAND

AS THE UNIONS see the matter, the early postwar case for liberalizing U.S. trade policy has long since disappeared. Our major trading partners have long ago made good their wartime losses, to become vigorous competitors today. For the past 15 years, American industry has been helping to make them competitive, by exporting capital in its own private version of the Marshall Plan, in search of cheaper labor. While the United States, the argument runs, continues to maintain the freest market of access in the world, these partners of ours have been busily closing their own borders to our products, through quotas, preference arrangements, border taxes, and other devices. In result, over the past half decade our industries that compete with imports have experienced a surge of inflowing products, bringing about plant closures, layoffs, and disappearance of formerly expanding job opportunities. At the same time, export sales have also been constricted.

In this welter of claims there is a measure of fact. Let us consider the implications of expanding foreign trade for domestic unionism.

Clearly, one of the primary incentives to U.S. firms for acquiring subsidiaries or for setting up branch manufacturing plants in countries such as Taiwan, South Korea, or Mexico is to take advantage of far lower labor costs. Also aiding this exodus are the tariff schedules of the United States, under which duty exemption is granted on the value of American materials contained in products imported from these plants. Wages are fantastically low in these locations. Even more important, man-hour productivity is relatively high. American management, technology, and equipment have proved able to maintain U.S. standards of labor efficiency, even when using relatively untrained and inexperienced local labor.

Moreover, in these lands a large supply of excess labor continues to be available indefinitely from the agricultural and artisan sectors. In the absence of intervention by the state or by trade unions, real wages will not rise for years to come even while manufacturing employment increases. The outflow of added capital from the industrial countries does not raise wages and unit labor costs, that is to say, it fails to induce a self-cancelling equilibrating process that ultimately would check the rise in such imports. On the Mexican border, for example, the situation is found in unalloyed purity, even unto the exclusion of products from the Mexican market.

How serious is the problem? For 1966–69, the Department of Labor has estimated that increased imports involved displacement of 700,000 potential jobs that would have been required if the equivalent output had been produced domestically. In the same period, export-related employment has risen by 200,000 persons. Thus it might be concluded that

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500,000 job opportunities were lost, as the AFL–CIO has contended.

There are serious weaknesses in this line of argument. The 700,000 opportunities are phantom jobs, not real ones. They do not represent equivalent unemployed or available and employable persons. Hence they are not comparable with the 200,000 increase in persons actually employed in the export trades. Even more, this was a period of full employment: the only way that 700,000 persons could have been put to work to produce the equivalent for these imports would have been by diverting them from other jobs, with attendant loss of product in these other domestic fields. Obviously, the reason this diversion did not occur is that wages were better and workers more productive in these other fields.[1] Beyond these considerations, the putative transfer would have made an already serious inflation still worse, at the same time denying to consumers the added imports that they had revealed they had preferred at existing comparative prices and product standards.

From the standpoint of the national interest, so long as there was full employment the equivalent increase of imports implied by these 700,000 phantom jobs has significance only relative to the balance of payments. If it had not been in deficit at the time, the increased imports would have represented simply one way of disposing of the earnings of U.S. capital abroad. Increased foreign investment would have been another. By contrast, since the balance of payments was in deficit, the growth of these imports reflected inflation and increasing overevaluation of the dollar. One could say that the United States was failing to pay its way through net exports plus earnings of capital. Instead, it was using foreign credits to maintain an otherwise unsustainable rate of importation and consumption—credits provided interest-free through the dollar-pegging operations of the foreign central banks, under the Bretton Woods system.

Using Bureau of the Census trade data and Bureau of Labor Statistics input-output technical coefficients to estimate employment effects, Lawrence Krause and John Mathieson have found that 16,600 jobs were lost because of shifts in imports and exports between the first quarter of 1970 and that for 1971.[2] With a jump in unemployment of over 1.5 million persons in the same period, the estimated direct contribution of international trade to U.S. unemployment was barely 1 percent.

But the 16,600 is a net figure, obtained by estimating (1) direct job losses from decreased specific exports and increased specific imports (—182,200 persons); (2) direct job gains from specific increases in exports or decreases in imports (182,700 persons); and (3) indirect job losses and gains in supplier industries to the export and import-substitute trades (—17,100 persons). Behind these figures are some even more interesting ones: increased imports cost a direct job loss of 134,400 in domestic industries, with sharp impacts in basic steel, motor vehicles, electrical goods, and apparel and finished textiles. By contrast, increased exports directly created 181,400 jobs in the same period. However, when job losses are concentrated in certain industries or localities and when they occur in a context of rising general unemployment, then it becomes even more difficult to persuade people that trade still contributes to economic welfare.

Consider the position of a labor leader in an import-threatened industry. He heads an organization of individual sellers of labor services. The organization prospers or declines with the fortunes of its members, and they, in turn, with the domestic firms that employ them and with the continued ability of their union to control the relevant labor markets. The union's orientation is to its own members, while their mutual concern is for steady jobs, good wages and conditions, recognition of skills and experience, and ties to the local community.

Foreign trade both benefits and threatens these interests because it widens the area of effective competition, both for workers and their products. As always, the benefits are less obvious than the costs: high-wage jobs for making exports are tacitly accepted, while imports are often painful enough to cause reflection. As we know, trade can wipe out significant numbers of jobs, on occasion undermining whole communities. In such circumstances, no union can be expected to be a partisan for open markets, for to be such would be to undercut the very basis for its existence. Thus there is a natural and understandable chain of logic that starts from a primary concern for the interests of incumbent workers as producers. If those interests become adversely affected by a surge of imports—or in an export industry by direct investment overseas to develop substitute sources for domestic production—then the logic of job protection leads directly to demands for quotas, for higher tariffs, and for restraints upon export of capital and technology.

Such pressures cannot be turned aside by a showing that open markets would add to the economic welfare of the United States even if the rest of the world were staunchly protectionist, granted that the showing can readily be made. The special interests of workers as *producers,* not as consumers, are not necessarily well-served by a policy of liberalized trade.[3] As producer-oriented organizations, the unions well understand this. Their basic problems are the relative immobility of labor as compared with capital; the promotion and protection of the interests of their members; and the difficulty of extending the effective zone of bargaining power to overseas locations.

Devaluations of important currencies such as the pound and the franc helped bring about some overvaluation of the dollar well before 1965, simply because they reduced the export prices of British and French goods relative to competing American products both within the United States and in third markets. But the effects were minor: the chief factor in overvaluation was the sustained domestic inflation that set in with 1965, followed within a year by a sharp uptrend in unit labor costs. For over 6 years, U.S. exports and import substitutes experienced a growing competitive disadvantage. The firms that produced these goods, and their employees, were being whipsawed by internal inflation and the system of fixed exchange rates.

The consequences were painful. In some particularly vulnerable situations, workers lost their jobs and plants were closed down. In the most sensitive industries, the growth of job opportunities slowed down or turned negative. Less obvious but more important, direct private U.S. investment abroad began to grow rapidly. To be sure, the export of private capital in part was for the traditional purpose of developing lower-cost extractive resources overseas, or was induced to enable American firms to get over foreign barriers against their exports. However, the grounds are good for believing that the major influence at this time was the growing attractivenes of markedly lower unit labor costs in manufacturing abroad, particularly in certain of the developing countries.

Although domestic inflation and its underlying causes are generally considered as the basic source of the trouble, the contribution of Bretton Woods arrangements should not be overlooked. Under a system of fixed exchange rates, a currency can be overvalued or undervalued for some time without compelling a change in parities. If the case is one of overvaluation, then the Nation's exports are too high in price, while its imports are too cheap. This has been an increasingly acute U.S. problem over the last 7 years. Under Bretton Woods, the dollar was given a special tie to gold while other currencies were pegged to the dollar. Because the dollar was made "as good as gold" for purposes of official convertibility, it could serve as a reserve currency for other countries, incidentally helping us to finance a 20-year string of payments deficits. But there was another side to the coin: by reason of this "special position" of the dollar, the United States in effect gave up the right to alter the external value of its currency. By contrast, the rules did accord this right to other members. Each was free to peg or to change the dollar value of its own currency, in this manner to control the dollar prices of its exports to and imports from the United States.

By holding the dollar to the established parity, the dollar prices of exports to the United States could be made cheaper and cheaper relative to domestic substitutes—hence the massive invasion of certain U.S. markets. At the same time, the relative prices of U.S. exports could go higher and higher for the same reason.

On the external side, the official actions of last August 15 presaged an end to this. When the President slammed the gold window shut, the external value of the dollar now had to depend upon the exchange market, together with whatever interventions the foreign central banks cared to make. They could buy up surplus dollars to hold the old fixed parity. Or they could let the dollar float downwards until it found an equilibrium price, inducing our partners to develop a desire to negotiate a new set of rates.

Effective devaluation of the dollar means, first, a reduction in the prices of our exports, and a corresponding increase in the prices of imports. Both will aid home employment. Second, it means that the advantage to American industry of going abroad in pursuit of foreign wage differentials will also be reduced. The effect for home employment is more complex but probably will be positive for the near term. Given these advantages from devaluation, together with a more realistic approach to adjustment assistance for workers displaced from their jobs by increased imports, the pressures for quotas and other restrictions should lose force. In short, the dollar reform, together with other measures, provides the equitable compromise mentioned earlier, that between job protection on the one side and community

access to the advantages of foreign trade on the other. □

———*FOOTNOTES*———

[1] See Sanford Rose, "U.S. Foreign Trade: There's No Need to Panic," *Fortune,* August 1971, 109 ff.

[2] Lawrence B. Krause, assisted by John Mathieson, "How Much of Current Unemployment Did We Import?," *Brookings Papers on Economic Activity,* No. 2 (1971), pp. 417–428.

[3] International trade necessarily produces gains or it would not occur. However, it does not follow that completely free trade would make these gains optimal.

THE 1971 WAGE-PRICE FREEZE AND INCOMES POLICY

ARNOLD R. WEBER

THE MAJOR ELEMENTS of the President's new economic policy were the levying of the surcharge on imports, the suspension of the convertibility of the dollar for gold, and various tax measures. These measures might be expected to have a salutary effect upon unemployment; however, they offered little relief to the price predicament. Indeed, by imposing the surcharge and permitting the value of the dollar to float downward, the discipline on domestic product markets was bound to be loosened, creating a further environment for domestic price increases. Thus, an important short-term element in the New Economic Policy was the imposition of a wage-price-rent freeze.

On August 15, 1971, the Administration vaulted across ideological and historical barriers and imposed a comprehensive 90-day freeze on wages, salaries, prices, and rents.

From an American perspective, the unique aspect of this exercise in incomes policy lies in the fact that so drastic a step was taken in peacetime when the economy was operating at significantly less than full capacity in the product and labor markets. To some extent, however, this circumstance made incomes policy more viable by permitting the Government to exert downward pressure on wage and price setting in an environment in which this pressure was less likely to be neutralized by other economic forces. In addition, if incomes policies have symbolic significance, the fact that the Administration previously had engaged in tentative forms of intervention with little effect meant that much stronger measures had to be taken to realize any political benefits from the intervention.[1]

The role of a wage-price freeze as an instrument of incomes policy may be understood in terms of short-term effects and long-term implications. There should be a legitimate concern over both the temperature that prevails during the freeze and the state of the topography when the glacier recedes. To some extent, the short-term and long-term effects can be treated separately. However, the primary significance of a wage-price freeze lies in its impact on other, more durable forms of incomes policy, rather than transient changes in the course of the Consumer Price Index.

Even as a short-run phenomenon, a wage-price freeze may have several objectives. The purpose of the 90-day freeze was not to manipulate subtle interrelations between economic variables. Rather, the objective was to have a dramatic impact on the economy by putting a lid on wage and price changes. By checking the movement of wages and prices, it was further hoped that the freeze would allay fears concerning the persistence of inflation beyond the 90-day period. To the extent that wage and price increases reflected the expectation that inflation would continue in the future, the freeze would halt this self-reinforcing process. Also, the period could be used to build a consensus to implement a more durable system of restraints in what was quickly christened Phase II. It was recognized that while the public might endure a simple, stringent program for 90 days, a longer incomes policy with a longer time horizon would be more complex and would require a consensus more profound than the almost visceral enthusiasm that greeted the imposition of the freeze.

Designing a freeze

The technical aspects of a wage-price freeze also are important in understanding or modifying its application. First, it is probably correct that to be most effective, a freeze should be implemented with little

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or no warning. To be sure, there may be significant political costs in this approach, since the element of surprise curtails the opportunity for consultation with major economic decisionmakers. On the other hand, any extended discussions undoubtedly will result in anticipatory movements in wages and prices by those parties who believe that the preemptory application of a freeze will penalize them unfairly or by those who simply seek personal gain. Any extended discussion of the "rules of the game" inevitably will provide a forum for the airing of these inequities. For the political decisionmaker, the problem is one of assessing the extent and magnitude of the latent consensus that will support such surprise or preemptive actions. The problem is an especially delicate one during peacetime when appeals to patriotism or other rallying cries cannot be expected to invoke the same degree of national unity as during wartime. In the summer of 1971 there was considerable evidence that such a latent consensus for the exercise of economic activism existed.

Second, the nature of a wage-price freeze generates great pressures for universality and uniformity of treatment, even though this approach may be economically damaging or superfluous. Because a wage-price freeze literally seeks to stop the normal processes of economic adjustment, such a program is inherently inequitable. A landlord might raise rents to cover the cost of increased taxes, a producer of finished products might increase prices to cover increased labor costs, wages in one company might rise to maintain traditional relations with wages in other firms. All of these decisions based on technical adjustments or venerable considerations of self-interest would be transformed into administrative or even moral questions if they were dealt with during a freeze period which contemplates strong restraints on wage and price increases. Paradoxically, equity during a short period of severe restraint could best be achieved by treating all of the economic participants comprehensively and uniformly. If inequities are engendered in individual cases, they represent random occurrences based on the unit's status at the commencement of the freeze, rather than any frail administrative judgment.

The fact that the freeze of 1971 was scheduled to last only 90 days minimized the necessity of making the differential rules that would be required to "manage" the economy over a longer period of time. The fact that the freeze enjoyed widespread public support made this dialectical approach politically feasible. "Uniformity" became the general defense against allegations of unfairness and the guiding principle of administration. Although only a few product categories and some income shares were exempted from the freeze because of statutory limitations or policy judgments, these omissions did create a political vulnerability and pressures to exact some form of redemption in the post-freeze period.

Third, while it is not possible to formulate precise guides, it seems clear that the duration of a wage-price freeze in an economy as complex as that of the United States should not be much longer than 90 days. Initial planning for the wage-price freeze of 1971 contemplated a duration of 60 days. The decision to extend the freeze to 90 days was probably a wise one. Because of the element of surprise, the opportunity for planning is limited and administrative arrangements cannot be put in place overnight. Nor is 60 days a sufficient period of time to carry out the complex negotiations within the Government and with various interest groups to develop the consensus necessary to the formulation of a longer-run incomes policy. Conversely, the extension of so stringent a program as a freeze for more than 5 or 6 months is likely to leave enduring damage to the economy and the various instiutional arrangements for price and wage decisions. As the freeze progresses, the technical problems of control become greater and the rules must become more specific. As contracts expire, collective bargaining is bound to suffer as a result of the uncertainty or suspension of needed adjustments. Moreover, the effects on the allocation of resources cumulate and the inequities inherent in a freeze become more difficult to bear. One of the added advantages of a short-term freeze is that it does not provide the time nor the incentives for the emergence of an industry of consultants, advisers, and miscellaneous finaglers who seek to finesse the system of controls and thus, ultimately, to subvert it.

Fourth, the need for sanctions to enforce a short-term wage-price freeze is not conclusive. The availability of sanctions, as was the case in 1971, undoubtedly has some positive effect on compliance. On the other hand, the availability of sanctions makes the program more susceptible to accusations of ineffectiveness based on the publicizing of scattered cases of noncompliance. Obviously, a key measure of a wage-price freeze is its impact on the overall rate of price increase. But to the extent that individ-

ual instances of noncompliance are identified, the consensus and broad commitment that are necessary to the success of the program will be eroded, even though the violations have a *de minimus* impact on price levels.

During the freeze of 1971, the Administration essentially tried to cover both bases; underneath the iron glove was a velvet fist. Heavy reliance was placed on voluntary compliance, while efforts were made to use the available sanctions so as to retain the broad support for the program. Thus the primary objective of the compliance program was not so much to have a direct impact on the economic effectiveness of the freeze, but to preserve the sense of equity and uniformity necessary to maintain the underlying consensus. The continued high level of support for the program registered in national opinion surveys indicated that on a short-term basis this strategy worked; however, the fact that a significant number of people questioned the effectiveness of the program in controlling prices constituted a danger signal.[2]

The freeze and thereafter

Perhaps the greatest significance of a wage-price freeze for incomes policies is the extent to which it may condition the post-freeze economic stabilization program. To the extent that a freeze is comprehensive, "tough," and appears to be "successful," a virtually irresistible expectation is created that the post-freeze mechanisms will be equally comprehensive and "tough." This expectation will limit the discretion of economic policymakers in developing a post-freeze incomes policy that can provide for the discrimination that is necessary to deal with a particular set of economic problems. Although the theory and practice of incomes policy may not be as advanced as that of acupuncture, it is clear that a different mix of policies and mechanisms will be appropriate for different circumstances. A "tough," comprehensive system of direct controls may be appropriate to situations in which price inflation is the consequence of persistent demand pull, but greater discrimination and flexibility should be exercised in dealing with price inflation that reflects cost factors and developments in international trade or monetary affairs. Hence, one of the consequences of a wage-price freeze may be to determine a post-freeze program that is overelaborate for the problems that demand attention. To allay a growing concern that the post-freeze program would be "soft," Administration officials gave early indication that it would be comprehensive and would "have teeth."

The imposition of a freeze creates a set of conflicting forces which introduces considerable instability into the post-freeze program. On the one hand, a freeze creates pressures for the development of an elaborate and restrictive post-freeze program. On the other hand, by damming up many wage and price adjustments that must take place subsequently, conditions have been created which make it virtually impossible to maintain a "tough" approach. An effort to maintain a "tough" program will preserve inequities and inevitably will have misallocative effects; to permit these adjustments in the immediate post-freeze program will act to undermine control of wages and prices over a longer-run period. Under these circumstances, the policymakers are forced to seek some middle ground that is not readily perceptible. Another, prior alternative may be to impose a partial freeze even though there are short-term political consequences. If incomes policies have any substantial effect, these effects should be realized over a longer term.

Last, a less obvious consequence of a wage-price freeze is its effect on the nature of economic decisionmaking. Private economic decisionmaking is essentially the exercise of individual liberty in a framework of due process supported by law. Normal government interventions into the product and labor markets are also conditioned by the requirements of due process arduously developed over many years. Because of time constraints and the sweeping application of a wage-price freeze, important elements of this due process are eroded in the course of administering the program. These administrative exigencies may create a strong sense of grievance on the part of individual parties that will undermine the cooperation necessary for a more durable program.

This helps explain the negative attitudes that often have been associated with efforts to implement an incomes policy in England and Canada as well as the United States—all are countries with a strong sense of due process. In any assessment of incomes policy in general and a wage-price freeze in particular, the terms of the trade-off must be expanded to include not only price stability, free collective bargaining, and orderly wage movements, but the preser-

vation of basic protections from arbitrary actions as well. □

FOOTNOTES

[1] For an analysis of incomes policies as political symbols, see Murray Edelman and R. W. Fleming, *The Politics of Wage-Price Decisions* (Urbana, University of Illinois Press, 1965), pp. 308–322.

[2] A special survey taken by the U.S. Bureau of the Census at the request of the Cost of Living Council, 1 month after the beginning of the freeze, showed that about 40 percent of the respondents doubted that the freeze was restraining prices effectively. The results of the survey were made public.

DISPUTE SETTLEMENT IN THE ELECTRICAL CONTRACTING INDUSTRY

DONALD J. WHITE

THE COUNCIL ON INDUSTRIAL RELATIONS for the Electrical Contracting Industry (CIR) is a national bipartite tribunal of the International Brotherhood of Electrical Workers (IBEW) and the National Electrical Contractors Association (NECA). The CIR renders final and binding decisions in contract and grievance disputes, and its jurisdiction extends to virtually all agreements (95 percent) in the electrical branch of the industry.[1]

A contractual Council clause specifies that "There shall be no stoppage of work either by strike or lockout because of any proposed changes in this agreement or disputes over matters relating to this agreement." It establishes a local labor-management committee consisting of three employers and three union representatives, with all matters to be determined by majority vote. Should that committee fail to adjust the dispute, the clause provides that "such shall then be referred to the Council on Industrial Relations for the Electrical Contracting Industry. Its decision shall be final and binding on both parties hereto." The clause continues to bind the parties without limitations of the time, unless it is removed by agreement of the local union and its employing contractors. It may not be excised unilaterally.

The Council mechanism is supplemented by an informal arrangement between NECA and the IBEW, under which the chairman or secretary of the local committee is to notify the appropriate IBEW vice president and NECA regional director of an unresolved dispute, so that their representatives may assist the local committee toward an agreement. This procedure has resolved disputes in an unknown but significant number of cases. Those not resolved have gone to the Council. The Council meets quarterly in Washington, D.C. It operates with panels of 12 members, 6 appointed by the international president of IBEW and 6 by the president of NECA, and the two presidents serve as cochairmen of the Council. All decisions are by unanimous vote. The Council has never utilized outside neutrals.

Historically, the CIR owes its origin to a small group of large traveling contractors in the East, the Conference Club. Led by L. K. Comstock, a farsighted electrical engineer who headed one of the largest firms, the club found the IBEW leadership in 1917, particularly International President F. J. McNulty and International Secretary Charles P. Ford, enthusiastically responsive to the idea of developing an all-encompassing standardized national agreement which would stabilize the industry's labor relations. By 1919, however, IBEW and Conference Club leaders realized that a national agreement embodying wages and working conditions was impractical in an industry characterized by local product markets involving almost infinite variations in structure and circumstances. Instead they saw as the starting point the expression of a commonly held industrial philosophy, which they worked out and incorporated in a Declaration of Principles. The declaration stressed, among other things, "close contact and a mutually sympathetic interest between employee and employer," the avoidance of strikes and lockouts as "detrimental to the interests alike of employees, employer and the public," the elimination of waste, and the improving of standards of work by fixing an adequate minimum of qualifications for engagement in the industry. The document further expressed the view that "Cooperation between employee and employer acquires constructive power, as both employees and employers become

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more completely organized."[2] The 1919 conventions of the brotherhood and the national contractors' association to which the Conference Club members took the declaration ratified it.

At the outset, the CIR adopted 11 precepts to guide its decisionmaking, including the following: Sudden wage changes and retroactive wage advances were to be discouraged because of employer construction contract commitments with owners; regularity and continuity of employment were to be sought to the fullest extent possible; the right of workers to organize local unions was to be fully recognized; agreements were to contain provision for a means to obtain interpretation; restriction of output by workers or by negotiated conditions was to be regarded as harmful; and continuing agreements were to be recommended, provided they contained provision for settling disputes. It was the latter precept which led to the development of the Council clause in local agreements, beginning in 1922.

The Council handled each of the 45 cases heard up to 1940 on its own merits, but two principles of particular importance emerged from the decisions. First, the Council would not countenance obstruction to technological progress. Thus, it ruled that New York IBEW Local 3 could not refuse to install prewired equipment. Second, in wage cases, it looked particularly to the extent of organization and the union-nonunion differential. For example, in a Salem, Mass., case, it observed that the local represented less than one-half the electrical workers in the territory; and it pointed out that much of the work locally had been performed by union labor, "but the increased cost of the same has resulted in the displacing of union employees with nonunion employees." Wages higher than nonunion rates are justified, the Council ruled, if they do not increase the cost of production, but this in turn requires that the employer of union labor must improve his management and the worker his skill if the higher wage was to be justified.

With the onset of World War II, the Council became inactive, but key NECA figures took full advantage of the war period to build the Labor Relations Section of the organization. Also, in 1945 and 1946, the brotherhood's "1-percent plan" was worked out, under which local contractors pay 1 percent of their gross payroll to a National Employees Benefit Board to support the national pension plan of IBEW and NECA.

A study committee set in 1966 found the CIR arrangement to be basically sound. It did suggest modification in the rules that would reduce, if not eliminate, the possibility of a gap between the effective date of a wage increase and the expiration date of the previous wage period. This modification would provide an effective remedy against complaints that the CIR had often caused members to lose wages because of its traditional reluctance to grant retroactivity. A 1970 study committee has not yet reported its findings.

The significance of the CIR is that it appears to allow for dispassionate joint decisionmaking in a broader perspective when local negotiators fail to agree, even after assistance from representatives of their national organizations. It is a species of voluntary arbitration, even though it involves no neutrals, and it yields a decision which is influenced by consideration of broad criteria and specific data relevant to the economic health of the industry and to the aspirations of the contending parties. But it is also a species of bargaining taking place away from the din of the local scene. At the Council, a unanimous decision can be reached within broad parameters without requiring full agreement on the individual ingredients that led to that decision. In this fashion, it is a flexible instrument not requiring major modification. □

FOOTNOTES

[1] There are Council clauses in agreements in all sections of the country and in all major cities except Chicago and Los Angeles.

Apart from numerous articles in the IBEW monthly *Electrical Worker's Journal* and the NECA monthly *Qualified Contractor,* the following contain information on the Council: James J. Healy, editor, *Creative Collective Bargaining* (Englewood Cliffs, N.J., Prentice-Hall, Inc., 1965), pp. 89–95; Remarks of Senator Wayne Morse and article by John D. Pomfret of the *New York Times, Congressional Record—Appendix,* May 24, 1962, p. A3876; M. A. Mulcaire, *The International Brotherhood of Electrical Workers* (Washington, Catholic University of America, 1923), Studies in the Social Sciences, Vol. V, pp. 146–156; M. H. Hedges, *A Strikeless Industry* (New York, John Day Co., 1930); *The Council on Industrial Relations for the Electrical Contracting Industry* (Washington, the Council, 1968), 9th ed.; Derek Bok and John Dunlop, *Labor in the*

American Community (New York, Simon and Schuster, 1970), p. 242. James D. Shaughnessy, "Some Aspects of Collective Bargaining in the Electrical Contracting Industry," unpublished dissertation, Catholic University of America, June 1949.

[2] IBEW Convention Proceedings, 1919, pp. 271–272.

REMOVING ROADBLOCKS TO MINORITY HIRING

ALFRED W. BLUMROSEN

OUR PERSISTENT FAILURE to curb racial discrimination in hiring casts doubt on the ability of the Federal Government to provide, in fact, for those civil rights which are so clearly guaranteed by the Constitution, statutes, and courts.

And so we must go back to the drawing board, to think our way through the problem to the optimum solution. This necessity has given rise at Rutgers Law School, in Newark, N.J., to some interesting industrial relations research in the last few years.

The first premise is that much discrimination results from the operation of industrial relations systems, not from evil motives or bad intent. This type of discrimination has now, in the *Griggs* v. *Duke Power Co.*[1] decision, been declared illegal. We have designed programs to identify such systems in recruitment and in the construction field.

The second premise is that, once a system is identified as discriminatory, there must be the exercise of broad rulemaking power by administrative agencies that will clearly inform all concerned of what conduct is required and what standards will satisfy the law.

The third is that the rule should be practical and enforceable.

Utilizing these general principles, we have developed a variety of programs to identify and deal with discrimination in recruitment by employers; to require landlords to report on the racial and ethnic composition of their tenants; to require landlords to solicit minority tenants; to develop the methods of fact-gathering in individual cases of discrimination in the construction trades; to develop programs dealing with discriminatory discharges in private employment.

One aspect of our research has been to seek methods of more effective enforcement of the antidiscrimination obligation in the construction trades. This is the extent of our thinking on the matter at this time:

1. Minority employment goals for the construction industry cannot be set by the process used in the Philadelphia Plan, which requires some kind of hearing in every community. A more efficient formula must be evolved. We have developed the following theory.

We may assume that, but, for the discrimination in the construction industry in a given labor market area, the percentage of minority journeymen and apprentices, taken together, would be roughly similar to the percentage of skilled and semiskilled minorities in the rest of the industry in the area. This is a general standard, which appears reasonable. It is possible to compute the percentage of minority craftsmen and operatives in the latter category by an analysis of reports to the Equal Employment Opportunity Commission. Therefore, we can set a goal for minority participation in the construction trades in any labor market area. This goal would automatically take account of local conditions of labor supply. We need not wait for evidentiary hearings in every city in the land.

2. The obligation to meet the goals is a continuing one, which does not terminate when construction begins. This principle involves some understanding of the operation of industrial relations in the construction industry. If the union is not able to supply sufficient workers, the employer is permitted to find his own. But they are temporary employees and may be replaced when and if the union produces a worker. The temporary employment concept is imbedded in the industrial relations system in construction. It can be useful in the situation where, at the beginning of a project, the employer has not been able to find sufficient minority workers to meet his goal. Other workers may be considered temporary until minority workers can be found. This would end the present practice of assuming that once workers have started on the job the allocation of employment opportunity is final. This concept is more nearly related to in-

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dustrial than to construction employment.

3. To meet his goal, the employer must be clearly advised that if the union cannot supply the workers, he is to disregard the hiring hall provision of the contract and seek workers elsewhere, through the State Employment Service, through private or other public agencies, or through general public recruiting.

4. For this to work, there should be a certification procedure by which minority persons would have their eligibility for employment or for an apprenticeship program determined without going through union-dominated procedures. For example: Workers certified by the Armed Forces or by city agencies, or who have been given permits by unions to work as journeymen, should likewise be certified by a Federal agency, to help an employer fulfill his minority manpower goal. Similarly, where an employer is willing to attest that a minority worker does work of journeyman quality, that certification should become the basis of an official qualification statement, which would entitle the worker to employment opportunities under the goal program.

Now, obviously, there are many difficult and complex technical problems in connection with the implementation of these principles. But Government agencies frequently lack the technical understanding to develop programs which will work. The industrial relations community has much understanding which can be of value in solving the problems of discrimination of our time. It should be put to that use. □

———*FOOTNOTE*———

[1] 401 U.S. 424 (1971).

DISCRIMINATION, MONOPSONY, AND UNION POWER IN THE BUILDING TRADES

JOHN LANDON AND WILLIAM PEIRCE

THIS PAPER examines some of the interrelationships among wages, racial discrimination, market concentration, and union power, using cross-sectional data for the building trades in 27 cities to test the consistency of labor market theory with the observed phenomena.

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Hypotheses

Discrimination. In Gary S. Becker's analysis of discrimination in competitive labor markets, the relative wages of blacks and whites adjust to accommodate the employers' tastes for discrimination.[1] In the building trades, however, the union typically controls entry. Since the union will not permit anyone to work for a substandard wage, discrimination will be manifest in exclusion.

The ability to exclude is dependent on "labor slack" (that is, an excess supply of potential workers), which results from the existence of a wage rate in excess of equilibrium and necessitates some criteria for rationing membership. We can thus take the exclusion of blacks as an indicator of labor slack, and hence of union power to raise wages. We hypothesize, therefore, that the ratio of the wage rate for electricians to that for construction labor will be correlated with the relative degree of exclusion in a given labor market. We use the difference between the percentage of construction laborers who are black and the percentage of construction craftsmen who are black as our primary measure of the degree of exclusion by different occupations drawing from the same labor market.

Union power. Electricians and plumbers often derive great power from controlling occupational licensing.[2] Laborers have no such advantage. Since their skills are not specialized, the supply of laborers to the construction industry is highly elastic in the absence of a strong union. Bargaining environment and degree of unionization should be critical in determining the economic power of laborers. We hypothesize that laborers' wages will be positively related to the degree of unionization in a State, and that the relationship will be stronger for laborers than for electricians.[3]

Market concentration. The relationship between market concentration and wage changes has been the subject of considerable attention. The hypothesis that makes the most economic sense is that greater concentration is associated with higher wages. However, when the product market and the labor market are coterminous, one might argue that greater concentration implies greater monopsony power, hence lower wages.

Empirical results

We tested the above hypotheses by using various combinations of the variables in the following basic equation:

$$R = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu.$$

Where: R = Average of union scale rates for electricians divided by the average of union scale rates for laborers.

X_1 = percent of laborers who are black (in the building trades).

X_2 = percent of craftsmen who are black (in the building trades).

$X_3 = X_1 - X_2$.

X_4 = the percentage of nonagricultural employees in the State who are unionized.

X_5 = the natural logarithm of the calculated index of employment concentration (monopsony).

μ = residual (assumed to be well behaved).

Since this paper focuses on the impact of monopsony and discrimination on relative wages, we include in each regression equation a measure of these parameters and vary the other inclusions to test their effect on these values. The complete specification of a single equation to describe these ratios was not attempted. Indeed a single equation model would be inappropriate for this task. Table 1 presents the results of the cross-sectional regressions for our 27-city sample.[4]

Our measure of monopsony relates positively, and in most cases significantly, to the ratio of the electrician's to the laborer's wage. In every equation in the table its coefficient exceeds its standard error, and in four of the six is statistically significant at the 99-percent confidence level. The addition of the union variable reduces the size of the monopsony coefficient and increases its standard error.

The positive influence of monopsony on the ratio (R) may reflect the strength of the more tightly organized electrical workers in exploiting ability to pay where the industry is relatively monopolistic and/or monopsony has a greater effect on the wages of the less well organized laborers.

The negative effect of the addition of the unionization variable on the significance of monopsony may indicate that unionization acts as an offset to monopsony. That is, laborers benefit more from an environment favorable to union power than do electricians.

The percentage of laborers who are black is highly and positively correlated with R. Since electricians are generally white, with token integration if any, the implication is that laborers are paid a higher proportion of the electricians' rate when they are white than where there is a large black component. This variable is significant at the 99-percent confidence level in each equation in which it appears.

This result is consistent with a hypothesis that unions and management tend to negotiate lower relative pay for black than for white workers. This may indicate either discrimination against blacks in areas where they compose a large segment of laborers or the relative weakness of the unions outside the electrical trade. This also explains why the percentage of the unionized workers in a State is highly and negatively related to R—reflecting the greater ease of organizing the laborers where unions are strong in the State. The unionization variable, however, does not lessen the significance of the percentage of blacks.

Equations 2 and 4 use the percentage of craftsmen who are black as the measure of integration in the building trades. The results are essentially similar, with a strong positive relation to R. One explanation for this finding is that, of all the construction trades,

Table 1. The influence of discrimination, unionization, and monopsony on wages: cross-sectional analysis, 27 cities

Electrician's wage divided by laborer's wage	Constant	Black laborers, percent of total (X^1)	Black craftsmen, percent of total (X^2)	$X^1 - X^2$ (X^3)	Unionized employees in State, percent of total (X^4)	Logarithm of monopsony index (X^5)	Coefficient of determination (R^2)
1. R=	1.588	+.0055[a] (.0017)				+.206[a] (.056)	0.59
2. R=	1.733		+.029[a] (.077)			+.262[a] (.049)	.66
3. R=	1.903	+.0043[a] (.0013)			−.015[a] (.003)	+.087[c] (.051)	.77
4. R=	1.989		+.018[b] (.007)		−.012[a] (.004)	+.159[a] (.058)	.73
5. R=	1.617			+.006[a] (.002)		+.205[a] (.060)	.55
6. R=	1.617			+.005[a] (.002)	−.016[a] (.003)	+.072 (.053)	.77

NOTE: Letters a, b, and c represent significance at the 99-, 95-, and 90-percent confidence level, respectively. Standard errors are in parentheses.

SOURCE: Percentages of laborers and craftsmen who are black, Equal Opportunity Commission, Equal Employment Opportunity Report No. 1: Part III, **Job Patterns for Minorities and Women in Private Industry, 1966**; unionization, U.S. Department of Labor, **Directory of National and International Labor Unions in the United States** (Bulletin 1596, 1967); monopsony index, data from the U.S. Department of Commerce, Bureau of the Census, **County Business Patterns**; and union wage, U.S. Department of Commerce, **Construction Review**, September 1969.

electrical workers are among the least likely to have significant black membership.[5]

As our preferred measure of discrimination, we use the difference between the percentage of black laborers and the percentage of black craftsmen. Equations 5 and 6 provide a strong confirmation of the negative relationship between integration and relative pay. As the percentage of black laborers becomes large relative to that of black craftsmen, the latter receive a higher proportion of the laborers' wage rate.

The percentage of a State's nonagricultural work force that is unionized is highly significant and negative in each equation in which it appears. This reflects the ability of the unions to effectively organize construction laborers in States where unions in general are relatively strong. Without the legal sanctions of State or municipal licensing, or the high skill level of the crafts, laborers apparently need this kind of support to increase their relative wage. Discrimination, however, retains significance when unionization is taken into account, thus indicating that discrimination on racial grounds may be related to wages even where unionization occurs.[6]

Conclusion

The empirical findings of this study confirm the suspicion that relative wage rates of construction trades are sensitive to racial composition of the work force. In particular, we find a consistent association between high absolute and relative black participation among laborers and low relative pay for this trade. A relative increase in the black composition of the crafts is associated with lower relative wages for laborers. This indicates to us a tendency of union power to be associated with both exclusion of minority groups and relatively high pay for unskilled laborers.

Relative wages among construction trades are also sensitive to product market concentration and the extent of union influence in the State. We find a consistent tendency of monopsony (which in this industry accompanies product market concentration) to result in lower relative wages for laborers, and for union strength in the State to relate positively to their relative compensation. From this we conclude that laborers lack the bargaining strength to offset monopsony (or take advantage of monopoly) and that union strength in the State facilitates organization of this trade. □

———FOOTNOTES———

[1] Gary S. Becker, *The Economics of Discrimination* (Chicago, University of Chicago Press, 1957).

[2] Simon Rottenberg, "The Economics of Occupational Licensing," in *Aspects of Labor Economics* (Princeton, N.J., Princeton University Press for the National Bureau of Economics Research, 1962), pp. 3–20.

[3] Stephen P. Sobotka ("Union Influence on Wages: The Construction Industry," in *Journal of Political Economy*, 1953, p. 134) found "a significant degree of correlation between the extent of organization and the relative wages of skilled building trades workers." In contrast to the skilled craftsmen, however, the proportion of construction laborers who were organized was not significant in explaining laborers' wages. This is consistent with our hypothesis that the laborers, lacking any inherent sources of strength, will be very sensitive to the bargaining environment. H. G. Lewis reworked Sobotka's data without significantly altering the conclusion regarding laborers. See his *Unionism and Relative Wages in the United States: An Empirical Inquiry* (Chicago, University of Chicago Press, 1963), pp. 63–73.

[4] Although information on market organization was obtained for 59 cities, racial composition of the labor force was available for only 27 of these. The cities included in this study are Chicago, Detroit, Los Angeles, New York, Philadelphia, Baltimore, Cincinnati, Cleveland, Houston, New Orleans, St. Louis, Atlanta, Columbus, Denver, Indianapolis, Kansas City, Louisville, Memphis, Newark, Tampa, Tulsa, Charlotte, Jacksonville, Little Rock, Richmond, Birmingham, and Dallas.

[5] Ray Marshall, *The Negro Worker* (New York, Random House, Inc., 1967), p. 64.

[6] It is, of course, possible that the significance of the unionization variable is purely illusory, reflecting merely the differences between regions of the country which are the real causal variables. While this is possible, we think it rather unlikely. When we tried substituting such other regional variables as income per capita for unionization, the results were much less significant. We conclude from this that strong unions in a State provide a significant degree of support for the laborers, which raises their wages relative to electricians. With the addition of this variable, our equations explain about 75 percent of the variation in R.

What happens when everyone organizes?

Experience in Sweden, Austria, Israel points to new strains on industrial relations structure, and need for adaptation by labor, management, and government

EVERETT M. KASSALOW

MODERN TRADE union movements, without exception, have as one of their goals the widest possible organization of the labor force. This has been achieved in only limited degree, however, in some major industrial nations like the United States and West Germany, where the percentage of organization barely reaches 30 to 35 of wage and salary employment. In other developed countries, the rate of organization is more than double that figure—in Denmark, Belgium, and Norway, for example, the degree of unionization has gone beyond 60 percent; it approaches 70 percent in Austria, exceeds that in Sweden, and is over 80 percent in Israel.[1] Experience in these very highly organized countries suggests that other nations, as they move toward higher levels of unionization, may encounter special types of industrial relations problems.[2] It further suggests that, with high unionization, interunion conflict may become almost as important as union-management conflict.

Experience in highly organized countries

The high levels of unionization prevailing in these countries have in general developed amid sustained high levels of employment. Indeed, the fact that, in a tight labor market, highly unionized manual workers can exploit their organizational strength may be part of the pressure motivating other groups, notably professional workers, to organize in self-defense against the effective manual presence. In several countries, too, "routine" white-collar employees also have unionized, thereby placing additional pressure on the professionals. The recent movement toward unionization on the part of teachers and nurses in the United States might be similarly explained, although in this case new organizing appears more as part of a general effort by public sector employees to keep up with highly organized production workers in basic manufacturing and construction.

Sweden. The Swedish model for labor peace, which was the object of worldwide interest for many years, is breaking down to some extent. One reason is that the high level of union organization rests on several different labor federations: manual workers (Swedish Federation of Trade Unions, LO); white-collar workers (Central Organization of Salaried Employees, TCO); and academics or professionals (Central Organization of Swedish Professional Employees, SACO).[3] Competitive struggle between these groups has contributed heavily to labor difficulties in Sweden in the past 5 years.

Indeed, some who have experienced this struggle suggest that union pluralism based on religious or ideological differences (such as that encountered in the Low Countries, France, Italy, or Switzerland) would be easier to live with than the occupational pluralism of Sweden, which almost creates a new kind of class struggle based on separate, occupational federations.

In this kind of class struggle, control over timing —who negotiates when—appears to be a necessity to prevent whipsawing. The Swedish Federation of Trade Unions, which has in the past found itself outflanked by later settlements negotiated by other federations, has adjusted its tactics to try to prevent this. These new tactics can include the right to reopen an agreement if a more favorable settlement is made later, the refusal to give final signature to an otherwise acceptable agreement until all other groups have settled, and so forth.

Employers and employer associations, who fear being pulled in different directions by competing labor federations, may come to prefer the consolidation of these unions into one federation, or may at

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least try to induce the unions to develop effective coordination of their bargaining activities. This represents a change from traditional attitudes in most countries, where employers have found it to their advantage to keep unions more divided.

Austria. The industrial relations scene seems to have been less turbulent in Austria than in Sweden, with few or no serious strikes. Here virtually the entire unionized labor force is within the Austrian Federation of Trade Unions, ÖGB. Whatever conflicts may arise between different groups in the labor force, the ÖGB seems able to compose them with relative success.

It cannot be overlooked, however, that inflation has been almost as severe in Austria as in Sweden for the past decade, according to National City Bank estimates of annual rates of inflation:[4]

	1960-70	*1970*	*1971*
Austria	3.5	4.2	4.0
Israel	5.5	5.7	10.7
Sweden	3.8	6.6	7.2
United States	2.6	5.6	4.4

Wage price movements in Austria have been somewhat more even in character, however, and, more important, the country has largely been free of the kind of strike crises and social tensions that have recently occurred in Sweden.

There are still no special signs of union organizational activity on the part of professional workers in Austria. Their generally low profile regarding labor market activity and organization may be explained by the less developed state of that country's economy and labor force, compared with other European countries. While comparable data are difficult to obtain, a 1967 ILO study showed that the proportion of professional workers in the labor force in Austria was well behind most other developed, democratic countries. (See table 1.)

Table 1. Professional workers as percentage of labor force, selected countries, selected years

Country	Year surveyed	Professional workers as percent of labor force
Australia	1961	8.4
Austria	1961	6.8
Belgium	1961	8.0
Canada	1965	11.2
Denmark	1960	7.8
West Germany	1961	7.6
Netherlands	1960	9.2
New Zealand	1961	9.4
Norway	1960	8.0
Sweden	1960	12.9
United Kingdom	1961	8.6
United States	1960	10.8

SOURCE: **Report of the Director General, Part I: Non-Manual Workers, Problems and Prospects** (Geneva, International Labor Office, 1967), appendix, table I.

The Austrian ÖGB has much more power over its affiliates than do any of the Swedish federations, and perhaps this also helps account for the relative smoothness of recent Austrian labor relations. The ÖGB, for example, is the only labor body in Austria that can sign collective agreements. This kind of power can be crucial when it comes to the timing of demands by different groups of workers.

Israel. The Histradrut is largely unchallenged on the union side in Israel. But in recent years its ability to control some of its affiliates seems to have been reduced by the economic boom and other events.

Histradrut's failure or inability to curb its affiliates seems puzzling in light of its very great formal power over them—such as the power of the central organization over the right of its affiliates to sign collective agreements; however, this power has been waning in recent years.

The unionization of professionals goes well back to Israel's labor history, when Israeli professionals were in the somewhat unusual labor market position of being in excess supply. Also, they were confronted by a highly unionized manual work force.

Part of the labor difficulties in Israel in recent years can be attributed to non-Histradrut affiliates, such as the secondary school teachers. Here again it was a professional group whose strike helped trigger the difficulties. Strikes by professionals affiliated to Histradrut—nurses and high level technicians, for example—helped fan the economic fires. Doctors, also a source of special pressure, are only partially organized within Histradrut, with some being organized independently.

United States. Paradoxically, the United States—even with organization at less than one-third of the wage and salary force—is already experiencing some of the problems associated with very high levels of unionization. This flows from the nature of union organization in the United States.

In manufacturing, for example, it is quite uncommon for the white-collar employees to be organized; but it is common for employers to pass along to their white-collar employees benefits equivalent to those negotiated by the unions of blue-collar workers. (One objective, obviously, is to help forestall the

unionization of the white-collar work force.) While the rate of unionization in manufacturing is a little less than 50 percent, the largest plants are much more highly organized, and in key industries such as automobiles, steel, and rubber tires the blue-collar workers are over 90 percent unionized. Union-management settlements in these industries often have great impact on the wages and working conditions of millions in other industries.

Again, the rate of public employee unionism in the United States is less than one-third, substantially below that in most other developed democratic countries. Most of this unionism, however, is of recent origin and like most newly formed unionism it tends to be aggressive and thus has an impact on the public employee labor market far beyond its numbers. Moreover, because of the system of adjusting Federal pay scales on the basis of studies of comparable pay in the private sector,[5] union settlements in industry have considerable impact on Federal pay scales. It should also be noted that the very highly organized Federal postal unions are usually in the forefront in determining wages and benefits for all Federal employees.

In addition, there has been some tendency to underestimate the numbers of union members. In the United States such figures usually do not include the literally hundreds of thousands of employees who are organized into "associations" at the State and local levels. These associations, in varying degrees, are caught up in a variety of collective bargaining relationships.[6]

Professional efforts to retain superior position

The unionization of professional workers poses some special problems in industrial relations. They have arrived on the union scene late, and are likely to feel the need to flex their new union muscles—a change from the period when strikes were regarded by many as incompatible with "true professionalism."

Professional workers, generally, are also resisting the very deep and powerful drive toward equalization of status that has characterized Western societies for most of the 20th century. The development of the welfare state (including the general leveling up, though by no means equalization, of education levels of the labor force) and the spread of heavy progressive taxation systems have probably borne most heavily on the employed professional classes. To some extent, their new union activities seem to represent resistance—conscious or unconscious—to this equalization process.

While the incomes of professional workers are still higher than average, the combination of steady inflation and heavy, marginal tax rates pinches their relative income position more severely than other groups. As a consequence, they tend to resist general wage settlement formulas. These general formulas, however, seem to be the inevitable need of a highly organized society if it is to avoid whipsawing (one union's using an early union's settlement to boost its own settlement higher than the earlier one, leading to an ascending spiral of wages).

These formulas are usually worked out between employers and the larger, traditionally more powerful manual workers' unions. A 7- or 8-percent increase for everyone might mean no real wage increase for professionals, caught up by marginal tax rates approaching or exceeding 50 percent and a 4- or 5-percent inflation rate. In Sweden, the professional union federation has insisted that in any national bargaining settlements, management and government must consider the tax effects on real income.

Difficulties in the public sector have two main roots, in the context of this discussion. In the first place, the government is directly involved in wage-setting for its own employees, and it seeks to avoid granting them any wage increase that might exceed the limits prescribed under its anti-inflation control policies. These policies typically include a national wage formula for the entire economy, which the government seeks to impose on all labor market "partners." It often proves easier to hold the line on its own employees than to make the private sector toe this same line. Indeed, with its own employees, the government often is tempted to be even more stringent and to make them a case for extra or special sacrifice. The temptation stems from what seems to be the ease with which government can tighten its own pursestrings. This "ease" is often illusory. Public sector strikes in the past decade have frequently had behind them the public employees' desire to "catch up" with the wages of private sector workers.

Even if the government's anti-inflation wage line is held throughout the economy, so far as both private and public collective agreements are concerned, wage drift soon appears in the private sector and private employees pull away from public workers. A growing sense of inequity eventually overtakes the

more "frozen" public employees, and a wave of strikes may then occur in the public sector in order to restore relative wage standings.

Professional workers have often been in the vanguard of these public sector strikes. Teachers, nurses, and even some groups of doctors—emboldened by their strong position in the labor market—have taken the lead in many recent public sector conflicts.

Their strength in the labor market has resulted from a large growth in demand for their services, as economic progress has moved the developed, democratic societies into a situation where services are in inceasing demand: as a rule of thumb, the more advanced the society, the larger the demand for professional services. This heavy demand has collided with limits on the supply side, imposed by the long training period required for most professional jobs.

The pressures toward unionization of the professional come at a time when the sense of "relative deprivation" seems to be mounting on the part of blue-collar workers, also.[7] The average blue-collar worker today has from 1 to 2 years more education than his counterpart 10 or 15 years ago. This, coupled with an ever-surer sense of his own union's strength, may be leading the blue-collar worker more and more to resent those relatively few privileges and symbols of status which are left to professional and white-collar employees.[8] The demands of young industrial workers today include such items as personal leave privileges and rest breaks on the job—generally, relief from the time clock—the kinds of benefits in which professionals and white-collar workers have always enjoyed superior status.

The public sector as the source of conflict

Israel's strike problems in the past few years point up what seems to be a common trouble spot in countries with a high rate of unionization—increased activity not only among professionals, but in the public sector as a whole. (It should be noted that in most of the countries studied, professionals are employed primarily in the public sector of the economy. The United States is still something of an exception with a large proportion of professionals in the private sector.)

This so-called "honeymoon" labor market position may be coming to an end in some countries. In the United States, notably, and to some extent in Sweden and France, the recent great expansion of university education may reduce some of the labor market strength of professionals, as we move further into the era when "everyone is organized."

Israel may be something of a special case as regards professionals in the labor market. Outmigration of some professionals in the past few years, as well as the less educated background of some recent newer immigration, may have reduced the relative supply in some key professional occupations and thus strengthened their bargaining position. However, the earlier Israeli experience, when the differentials between professional salaries and those of other workers were sharply compressed in the face of a very large supply of professionals,[9] may indicate a pattern for other countries in the matter of keeping professionals' income in balance with wages of other groups. Some of the Western European countries, as well as Canada and the United States, are either entering or on the verge of labor market situations where the great increase in the number of university graduates should be enlarging the supply side of the professional labor market and thereby reducing the labor market power of the professional group.

Package settlements

The criss-crossing of different groups' needs and aspirations, as well as the relevance of taxes and cost of living to wage settlements, is likely to broaden the economic basis for bargaining settlements. In Denmark, for example, in several instances since World War II, union, management, and government officials have been compelled to bring about a "total" (or "block") national bargain that included not only wage changes but also government agreement on new tax legislation and food subsidy arrangements.

In Israel, too, one notes the tendency in recent years for government to join labor and management in working out a package deal that combines new tax and cost of living programs with the general wage settlement. And the New Economic Program in the United States, begun in August 1971, involves a combination of tax changes and temporary wage and price controls to combat inflation.

Redistributive effects of bargaining

The very nature of collective bargaining is called into question when a society becomes highly unionized. The traditional union view is that collective

bargaining is a tool for redistributing income to exploited workers and away from the propertied and higher-income classes. Some economists, on the other hand, question the redistributive possibilities of the bargaining process, arguing that at best it only redistributes income in favor of organized as against unorganized workers, without influencing overall income distribution as between labor (as a whole) and other groups.

In any event, it is clear that when the level of unionization reaches 60 or 70 percent of the labor force the bargaining process may be one that takes place between different groups in the labor force as much as between labor and management. The concept of bargaining as redistributing income to the working class becomes somewhat obsolete at this point, particularly since the 20 or 30 percent of workers still unorganized are likely to include many of the lowest paid workers in the economy, often those in service jobs.

For the unions, it may take time to readjust their traditional philosophies in this regard. Some of them will doubtless continue to seek advantage for their own membership, with little or no regard for the organized (or unorganized) sector as a whole. However, as government is increasingly confronted with the phenomenon of extensive labor union pressure on the economy as a whole, it will be driven to compel unions, and management, to partake of "total" settlements.

The need for national consensus

As noted above, the cohesion of the Austrian Federation of Labor seems better preserved than that of the Histradrut of Israel. This points up another important aspect of labor-management stability in a highly unionized society: the necessity for the nation's work force, management, and government to achieve some reasonable consensus on goals and standards, built on a degree of mutual self-discipline.

The Austrians have had the advantage of a series of social and economic institutions (the Chambers of Labor and Industry, the Joint Commission on Wages and Prices, the State Economic Commission for Nationalized Undertakings, the Advisory Branch on the Anti-Dumping Act, the social security system, and so on) in which union and management representatives share in important decisionmaking roles. In most areas of social intercourse, it is generally easier to negotiate with counterparts whom one encounters in many different meetings and settings, and this carries over into the industrial relations field. In Austria these same forces are also presented in the parliament by political parties representing fairly clear-cut interest groups, and decisions reached in social and economic bodies are effectively implemented, or often not challenged, in political life. This articulation of economic and social interests at virtually all levels of national life is less developed in other countries. Indeed, it may only be possible in small countries, with more homogeneous populations. (It is, incidentally, only in relatively small countries that unionization rates have, as yet, reached or exceeded 50 percent of the wage and salary force.)

In Sweden, on the other hand, the militant pursuit of group interest—whether this be blue-collar equalization,[10] professional safeguarding of older privileges, or special forms of business interest—has recently produced a more divisive situation, with less will to restrain and avoid confrontation.

AS UNIONIZATION SPREADS in a modern, democratic, industrial society, it places severe new strains on the structure of labor-management relations, and it appears that some old labor-management practices, attitudes, and institutions will have to be modified or abandoned. It is difficult to judge what must go and what must replace it; but one thing that seems clearly necessary is a means to knit together more effectively the various labor unions, to achieve acceptable, centrally-agreed-upon decisions. In the United States and Great Britain, where individual national unions have traditionally enjoyed full autonomy in negotiating their economic conditions, the labor movement may be hard put to make these adjustments.

Still, one need not be wholly pessimistic in this regard. The British Trades Union Congress, several years ago, undertook the task of reviewing in advance and passing on the wage demands of the affiliates, to make these accord with the TUC's own incomes policy. While it may not have achieved spectacular results, such a step was nevertheless a significant indicator of the possibility of major structural change in British unionism. And in the United States, while George Meany and the AFL-CIO have denounced President Nixon's New Economic Policy, their principal complaint seems to be that it lacks equity. The AFL-CIO seems willing to accept the

principle of some central controls (at least in some periods), if it can participate in the decisionmaking processes and if equal sacrifice of all groups is assured.

As the net of union organization spreads in a country, a substantial increase in the national federation's central power over its affiliates becomes increasingly necessary. A curious paradox accompanies a high rate of unionization: namely, that its very size calls for greater responsibility and control from the center, and for limits on the union's traditional expression of power, the strike. The paradox suggests that when "everyone" is organized, "everyone's" freedom to strike is likely to be inhibited. For a strike by one organization, unless accepted by the others, raises the possibility of counterstrikes to prevent any single group from gaining special advantage.

The very spread of organization raises the possibility of a single strike of enormous size. Yet the growth of centralized power and control may also produce a greater sense of isolation and frustration at the job and plant level. This in turn may increase the likelihood of smaller strikes, often unauthorized by the central group, at the lower levels of the hierarchy.

The widening of union organization, approaching the point where "everyone" is organized, will also accentuate the need for more central controls on the employers' side of the bargaining table. To a degree, too, the problem of engaging managerial groups in a wider consensus will also be posed.

As for governments, the need for consensus will force them into a more interventionist role, even in countries which have until now prided themselves on the voluntarism of their industrial relations systems. The greater the levels of unionization, the less realistic the view that labor market conditions can be self-regulated by management and labor. The major economic responsibility of government will, of course, be its role in helping sustain conditions of full employment; in the absence of these conditions, any general economic consensus becomes virtually impossible in modern democratic society. □

———*FOOTNOTES*———

[1] Estimating procedures regarding unionization vary from country to country, as do surveys of the labor force and the percentages suggested are only rough approximations. Unionization rates are expressed as percentages of wage and salary employment.

[2] The discussion in this article relates only to developed, democratic countries and excludes the soviet-style countries where unionism tends to be of a special state-related nature.

[3] A fourth, much smaller federation organizes some of the higher civil service employees and commissioned officers in the armed services.

[4] *First National City Bank Newsletter,* September 1971, p. 9.

[5] See Thomas W. Gavett, "Comparability wage programs," *Monthly Labor Review,* September 1971, pp. 38–42.

[6] A recent release by the U.S. Bureau of Labor Statistics indicates that agency is beginning to include figures on association membership in its overall estimates of unionism in the United States. See U.S. Department of Labor release, "Labor Union and Employee Association Membership, 1970," Sept. 13, 1971.

[7] See W. C. Runciman, *Relative Deprivation and Social Justice: A Study of Attitudes in Social Inequality in Twentieth Century England* (London, Routledge and Kegan Paul, 1966).

[8] See Harold L. Sheppard, "Discontented blue-collar workers—a case study," *Monthly Labor Review,* April 1971, pp. 25–32; Peter Henle et al, "Blue-collar/white-collar pay trends," *Monthly Labor Review,* June 1971, pp. 3–36; and Peter Henle, "A further look at the blue-collar blues," *Monthly Labor Review,* June 1971.

[9] Other factors, such as the highly extolled position of manual labor—and especially kibbutz farm labor—may also have helped account for the compression of wage differentials, to the disadvantage of professionals, earlier in Israeli history. The problem of wage differentials, particularly for professionals, has been a continuing one in Israel. See Milton Derber, *Israel's Wage Differentials, A Persistent Problem* (Urbana, University of Illinois, Institute for Labor and Industrial Relations, 1963), Reprint Series No. 125.

[10] While this paper stresses labor-management relations and especially wage problems, among the different Swedish labor federations there are also important differences in tax and educational policies. In politics the largest, manual federation is closely related to the Social Democratic party; the others practice a strict political neutrality.

Unions and local government: A review essay

First two volumes of a five-part study of public sector unions raise challenging issues regarding the use of power and impact on the political process

ELI ROCK

ALTHOUGH UNIONS OF PUBLIC EMPLOYEES have existed in the United States since the 1930's and earlier, the real growth in this field began in the fifties and went into truly high gear during the sixties —some 20 or 30 years after the comparable growth period of the private sector. Only a tiny minority of the practitioners in the public sector in the fifties had come to that field from labor relations in the private sector. To them it was quickly evident that there were major and obvious differences between the two fields and that the formulation of an adjusted approach for the public sector was urgently required. Efforts to launch a major interdisciplinary research project—one which might provide some national guidance in this largely uncharted field at a time when growth was in its early stages—met with total failure.[1]

Not surprisingly, the growth in the public sector in both the fifties and sixties proceeded from the private sector rules and experience. Where it was impossible to utilize private sector concepts, adaptation took place on a largely hit-or-miss basis. At the same time, significant individual research—previously in distressingly short supply—burgeoned as scholars commenced, particularly in the 1960's, to recognize the public sector as a "hot item." Not until 1967, however, was the broad-range, team-type of study that had earlier been envisaged finally undertaken. The occasion was the launching of a five-volume, interdisciplinary project by the Brookings Institution, with Ford Foundation assistance. Out of that program, the first two volumes have now appeared—*The Unions And The Cities,* by Harry H. Wellington and Ralph K. Winter, Jr., and *Managing Local Government Under Union Pressure,* by David T. Stanley with the assistance of Carole L. Cooper.[2]

The focus of the Brookings project is, as had earlier been recommended, unionism at the level of local government. Here the problems are most acute and can be clearly differentiated from those at the Federal and even the State level. The Wellington-Winter study addresses primarily the direction which the *law* can or should take in *regulating* local collective bargaining, while the Stanley book focuses on the *effects* of collective bargaining on local government *administration.* The subsequent three volumes in the series will provide an analysis of the structure of the collective bargaining process, a study of the nature of public sector unions and unionism, and a study of the effects of unionism on pay levels.

Of the present two volumes, the Wellington-Winter one, with its greater emphasis on basic policy questions and its closely reasoned style, is plainly the more profound and challenging work. The authors, both on the faculty at Yale Law School, make no bones about their leanings—they are clearly concerned with the "distorting" effects of collective bargaining on the "political process"—but for the most part they make their points well, however controversial some of their conclusions.

As reflected in particular by their analysis of the strike and scope-of-bargaining issues, the authors contend that the unions in the public field hold the potential for too much power; that a combination of political power plus an unchecked strike weapon—in an area where the restraining effects of product competition and the trade-off effects between job security versus economic benefits are lacking—can result in a disproportionate share of the public pie for the public employee, as opposed to the legitimate needs of competitively disadvantaged other groups; that on noneconomic issues also, union power can skew the normal political process, which requires discretionary exercise of judgment by government officials based on the interplay of various community interests, of which the public employee's should be only one; and that fundamental to the whole issue

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is the mistaken assumption by many that the concepts and practices of collective bargaining in the private sector can and should be *fully* transplanted to the public sector.

With the above conclusions in mind, the book goes on to offer, in detail, various suggestions and alternatives towards establishing an improved equilibrium of power—ranging from such practical matters as preparing for and coping with strikes where they do occur to lengthy evaluation and recommendation regarding the forms and content of State and municipal collective bargaining laws.

From informational samplings produced by their own and others' research, the authors also probe into such diverse subjects as the highly important problem of appropriate bargaining units in the public sector—for which they suggest a breakdown between primary and secondary criteria for unit determination; unionism among supervisors; special problems of grievance procedures in the public sector; internal fragmentation of the government "employer;" and impasse procedures as a substitute for the strike. In the latter connection, they lay emphasis on the "choice-of-procedures" technique—as adapted to the public sector—and offer new and creative proposals for its use.

Even on the book's basic message, the authors approach the problem for the most part with practicality. Overly repressive legislation is criticized. There is full awareness that no matter what, strikes will still occur in some States and that a recommended program of improvement must operate from that assumption. For those situations where the strike ban is likely to be effective, a separate type of program is offered.

Since the authors display healthy willingness to plunge in with both evaluations and recommendations on virtually all of the important problems exposed, much of the book will be controversial; and in a number of areas, the study leaves some disturbing questions.

To cite only a few examples, the important question of supervisory unionism is dealt with much too cursorily. In their proposed ban of any unionism among supervisors—as opposed to the more conventional public sector attitude that the primary need is to bar supervisors from membership in unions of those supervised—the authors overlook the special problems of "management loyalty" in the public sector, where supervisors often obtain their positions through competitive examinations rather than by favor of those above them; and they also overlook the all-too-frequent tendency to allot a disproportionately small share of the economic pie to the supervisory group, when it is not represented—a fact pointed out, incidentally, by the Stanley study. Nor is the special "esprit" question, as regards officers and men in the police and fire services, in any way dealt with in this connection.

On the book's major premise of abuse of power by public sector unions, distortion is also possible if the perspective is limited to a few glaring examples like New York City or Hartford, Conn. On the larger national scene, or even in upstate New York, examples abound for the proposition that the public sector unions have—in response to the inflationary cycle and in keeping with private sector wage patterns—obtained little more than is supportable under traditional criteria of wage setting. A more selective approach—for example, a recognition that the "urban problem" city is a depressed industry, which might be regarded as having departed from the normally lower wage pattern of a depressed industry in the private sector—could conceivably have made more sense on this subject. By the same token, however, the case of the teacher and the policeman in the wealthy suburban community, and the problem of wage relationships with the adjoining depressed city, would then have required separate recognition and treatment.

The whole wage question, it is recognized, is the major subject of one of the later studies in this series. Nevertheless, since abuse of power appears to be an underlying assumption of the present book, it would appear that a more detailed documentation of that assumption would have first been in order.

All of this is not to overlook that abuse is unquestionably possible and that, in the approaching showdown between forces in our now virtually bankrupt cities, disproportionate power by any group may complicate greatly the ultimate goal of mutual sacrifice and accommodation. In any event, there appears little likelihood that the right to strike in the public sector will ever achieve the same legitimacy and scope which attach to it in the private sector. On that all-important question, on the weighty question of scope of bargaining and on a great many other significant areas of uncertainty that now characterize public sector labor relations at the local level, the Wellington-Winter book presents an extremely comprehensive analysis; and it offers a set of proposed guideposts and alternatives, for the future shaping of

the law on these subjects, which is probably unmatched anywhere in terms of both breadth and perception.

The Stanley study is considerably more modest, both as to objectives and results. In organized fashion, the authors have undertaken to amass data regarding the collective bargaining experience of 15 selected cities and four urban counties. The techniques include questionnaires, plus interviews in each of the communities by the authors themselves or outside practitioners and scholars.

Owing perhaps to a variety of factors, there is clear evidence of inaccuracy and superficiality regarding findings in a number of the communities; and a portion of the sampling selected has already been reported on elsewhere. Also, much has happened since the date of these studies—the first half of 1969. Nevertheless, with particular reference to the present book's primary focus, there is little question that the informational aspects of the study represent a new contribution.

Based on examples among the communities surveyed, as well as utilization of an extensive bibliography, the larger part of the book attempts a qualitative analysis in terms of the stated emphasis regarding bargaining effects on everyday public administration. The perspective is that of the administrator and, not surprisingly, the book points up that life will never again be the same for those in the executive branch of local government, as well as those in the legislative. A great variety of individual working conditions and personnel practices—relying on cited specific cases—are examined in terms of the effect of bargaining on both the level of benefits and the nature of the decisionmaking processes. The matter of division of power and authority on the employer side in the collective bargaining process is also examined here, as in the Wellington-Winter study; and specific questions such as the stepchild treatment of supervisors when the pie is divided, use of grievance procedures and grievance arbitration, and the experience of the department heads are dealt with. The role and function of the legislative body and the Civil Service Commission, and the fundamentally changed nature and timing of such fundamental governmental processes as preparation and approval of the budget and general personnel administration, are examined in terms of the far-reaching effect of the collective bargaining idea and some of the new impasse-resolving machinery. Experiences long ago encountered by management in the private sector—the foregoing of unilateral authority, the painful and time-consuming experience of sharing decisionmaking with representatives of employees—are found to prevail in the unionized local governments studied. But the latter experience is greatly complicated by the fact that the public employee exerts not only the economic power of a unionized group but also that of a taxpayer and a political pressure group.

The authors do not, however, share the same concern as Wellington and Winter regarding abuse of power and distortion of the political process by public sector unions. A number of aspects of personnel administration are found to be of little interest to the local unions—at least up to the date of the study, and for the blue-collar employees who appear to be the primary subject of interest. Although pointing out repeatedly that the effects of collective bargaining on wages is the subject of another study in this series, the authors observe on numerous occasions that collective bargaining may only have produced the level of wages that would have obtained otherwise. The same conclusion emerges regarding at least most of the secondary items of compensation such as overtime payments as well as fringe benefits. Nor are they overly concerned regarding a usurping role by the unions on noneconomic, "public" issues. At the same time, there is something less than total consistency in these areas, and expressions of concern regarding abuse and potential for abuse also appear at a number of points.

Part of the explanation for the difference of emphasis and viewpoint between the two studies here considered may lie in the fact that the Stanley volume excludes almost entirely an examination of professional unionism, particularly that of teachers. While attention is paid to social workers in New York, the study clearly understates the whole, major phenomenon exemplified by teacher union participation in such "policy" or claimed "management prerogative" matters as curriculum, class size, and the like. The omission is not serious given the book's stated, primary emphasis on administrative processes and functions—for which, at least in a narrow sense, unionism of professionals may offer little that is unique. Within that framework, however, the book's findings are to a large extent only confirmatory and predictable—although offering some evidence and guidance in terms of individual cases and subject matter that may be useful to the practitioner.

Understandably, the authors find it impossible to

avoid consideration of larger policy implications. In that connection, among others, there is duplication of subject matter with the Wellington-Winter study and inconsistency in some of the conclusions. In terms of a meaningful, in-depth attack on the problems that still lie ahead, the latter volume is far more profound, however more controversial in tone.

From the evidence now available, and pending appearance of the final three studies in the series, certain preliminary observations are in order regarding this all-important Brookings series. As in any major study in an area of evolving public policy, and where a stated goal is to assist those with the decisionmaking responsibility, timing can be all important. Unquestionably, attitudes have now formed and practices have become ingrained. The earlier period of both labor and government-employer uncertainty regarding concept and the potentially mutual receptivity to new ideas are not likely to recur. Most of the major States have now enacted laws on the subject of local collective bargaining, and those will not be easily changed. Nevertheless, the problem is far from resolved, and a later study holds the opportunity to evaluate much that would, under any circumstances, have been experimental in the initial stages of a new development such as this. Assuming more rather than fewer crises in the future, and a reexamination of existing legislation and practices, a significant number of the Wellington-Winter proposals will clearly merit weighty consideration. Equal attention may be justified for some of the individual later studies, assuming reasonably early publication.

As always, much depends, and will depend, on the quality and competence of the individual research and the organization of the project as a whole. The latter at least, judging from these first two volumes, may leave room for improvement. New policy, in an untried new area such as this, should clearly depend on the separate and often differing views, for similar areas of subject matter, of the scholars of law, public administration, and labor economics who are represented in this series. Nevertheless, this cannot explain all of the organizational shortcomings that appear to characterize the study thus far.

Reference has already been made to the subject of one of the yet-unpublished later studies (effects of collective bargaining on pay levels), whose findings might well have had an important influence on some of the basic assumptions of the present two volumes, had that volume preceded these in time. As for the present volumes themselves, there is some not inconsiderable duplication of factual subject matter that could, in a number of instances, have clearly been left to one of the volumes and disciplines alone.

While hindsight is always easy, questions must now arise as to whether the separate five teams of geographically separate scholars who are being used will be as productive, qualitywise, as a single integrated team in one location might have been—with a final collective set of recommendations that would have represented the distilled essence of the total team. It is possible also that the field research, had it been conducted on a single team basis, would have minimized delays and informational shortcomings flowing from the three separate visitations to some of the same communities under the present format, and would have resulted in an improved research product.

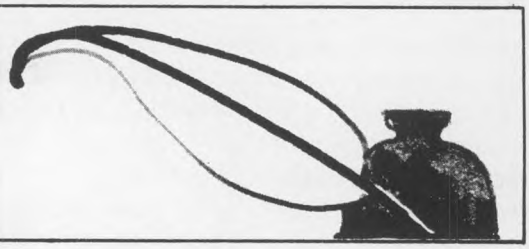
Much of the above may be conjectural, however, and the major portion of the series is yet to appear. Recognizing the unavoidable difficulties in any study of this type, there is reason to anticipate that the series will constitute a major and unparalleled contribution to the literature and experience in this vastly important new field of labor relations. □

FOOTNOTES

[1] For a description of a 1959 effort in this direction, see Eli Rock, "Municipal-Collective Bargaining: New Areas for Research," in Gerald G. Somers, editor, *Collective Bargaining in the Public Service: Proceedings of the 1966 Annual Spring Meeting, Milwaukee, Wis., May 6–7, 1966* (Madison, Wis., Industrial Relations Research Association, 1966), pp. 70–80. An abbreviated version of this paper was published in the June 1966 *Monthly Labor Review*, pp. 615–616.

[2] Harry H. Wellington and Ralph K. Winter, *The Unions and the Cities*. Washington, Brookings Institution, 1971, 226 pp., $7.95; David T. Stanley, *Managing Local Government Under Union Pressure*. Washington, Brookings Institution, 1972, 177 pp. $6.95.

Communications



ADDITIONAL THOUGHTS ON THE DUAL LABOR MARKET

BENNETT HARRISON

THE CONCEPT of labor market dualism has fueled a growing number of inquiries into the nature of urban poverty, including recent studies funded by the Manpower Administration. Moreover, the insights of the dual labor market construct underlie much new manpower legislation. In the November 1971 *Monthly Labor Review,* Robert E. Klitgaard [1] criticizes the Doeringer-Piore theory of the dual labor market [2] as an explanation of the existence of "working poverty" in the United States.

Recirculating the poor

One of the central postulates of the dual labor market theory concerns the "artificial confinement" of the poor to the secondary labor market: a class of jobs characterized by "low wages and fringe benefits, poor working conditions, high labor turnover, little chance of advancement, and often arbitrary and capricious supervision." Klitgaard argues that there is no evidence for concluding that this confinement is outside the control of the working poor themselves. Rather, "workers who are motivated to work and display regular work habits can be assimilated in the primary labor market." Indeed, the confinement arguments "were strongly undermined by the events of the last half of the 1960's. Strong demand for labor led to the employment of a great number of persons previously considered qualitatively 'unemployable'."

Recent studies of the Manpower Development and Training Act and antipoverty programs such as Boston's ABCD program concluded that the placement function succeeded in helping the disadvantaged to find new jobs, but not in increasing their wage rates, which tend to remain below $2 to $2.25 an hour.[3] Other researchers report that over 60 percent of recent nonagricultural placements made by the U.S. Employment Service were in positions paying less than $1.60 per hour.[4] In 1966, in the ghetto areas of the Nation's 12 largest metropolitan areas, the expected difference between the weekly wages of black high school graduates and black sixth grade dropouts, after controlling for age, sex, training experience, city of residence, and industry of employment, was less than $8. Between high school graduates and high school dropouts—again black and residing in the ghetto—the average difference in annual unemployment rates was only .7 percent.[5] All these findings suggest that many public institutions tend to *recirculate* the working poor among the very secondary jobs which are responsible for their poverty.

Klitgaard's assessment that "the major 'barrier' excluding the poor from primary employment is their own lack of motivation to work" ignores what is surely the centerpiece of the dual labor market theory: that motivation in particular and worker behavior in general are formed in response to confinement. By acclimating themselves to 'local' work arrangements, workers find it psychologically as well as technically difficult to move from one stratum of the economy to another. Embedded in the dual labor market theory is the hypothesis that productivity and stability increase as wages increase. Thus, at the low wages prevalent in the secondary labor market, poor productivity and lack of motivation might be expected.[6]

Klitgaard cites evidence that unemployment rates among the working poor fell during the last half of the 1960's. An expansion of the demand for labor *within* the secondary labor market would certainly show up as a reduction in measured unemployment. This ambiguity of the conventional unemployment

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rate is precisely why many policymakers are calling for the development of new measures of labor force activity, such as "subemployment."

Benefit to employers

"It is hard to see," writes Klitgaard, "how the 'active perpetuation' of a secondary labor market can be in the interest of both primary and secondary employers." By tending to create a surplus of labor in the secondary market, confinement depresses wages; hence, secondary employers benefit. But primary employers may also benefit: existence of these external cheap labor markets (1) allows primary employers to subcontract to secondary employers the production of various items, or to "internalize" these pools of low wage labor by creating strata *within* the primary firm itself;[7] (2) pits lower-class whites against lower-class blacks in a struggle for a share of the jobs, hence defusing union and political organization and preserving the status quo;[8] (3) facilitates the secular maintenance of a Keynesian deflationary gap—considered necessary for long-term economic stabilization—by creating a class of labor which has accommodated itself to periodic unemployment.

Ghetto employment problems

Dual labor market theorists argue that the "paradox" of simultaneous high ghetto unemployment and high turnover among ghetto workers is anomalous in terms of the conventional neoclassical model, but becomes a "normal puzzle" within the alternative framework. "It is *secondary* labor shortages that employers bemoan and lack of *primary* jobs that appalls ghetto residents." Klitgaard replies that the new theory is not very useful because "the empirical work backing up the dual market explanation is somewhat scanty."

Lack of empirical evidence makes a theory neither incorrect nor implausible, but only unproven; the same might as easily be said of utility theory. In any case, a growing body of quantitative research has clearly demonstrated that interindustry and interoccupational distribution of wages and employment stability—the principal variables in the theory—*are* bimodal.[9] Klitgaard argues that the paradox *can* be explained without resorting to a new theory, but only "*given* the lack of work incentives and motivation among the poor" (emphasis added). But one has not really solved a problem by assuming it away. Scientific reasoning requires balancing the desire for the most simple explanation possible with the need to make realistic assumptions.

Importance of underemployment

One of the most important insights of dual labor market theorists has been their rediscovery of underemployment as an important phenomenon in the American economy. Klitgaard rejects this attempt to redirect our policy and research priorities: "Unemployment can still be defended as the primary problem for public policy. . . . The emphasis on the quality of jobs as the central manpower problem is open to serious criticism."

Unemployment, asserts Klitgaard, leads to increased welfare dependency, while (by implication) underemployment does not. But if workers are restricted to secondary jobs, which pay wages which do not permit them to support their families at even a modest level of comfort, they will still require supplementary income, even though they are technically "employed." Many of the people who work in low-wage "secondary" jobs, who receive welfare payments, who participate in manpower training programs, and who engage in one or another form of illegal or quasi-legal "hustle" are the same people, moving back and forth among these various "peripheral" activities in an attempt to make ends meet.[10] In 1969, for example, among those AFDC families who worked at all during the year, the average family received $135 a month from other sources—primarily earnings.[11] The Manpower Administration itself has pointed out that:

> the division of the poor between those with jobs and those depending on welfare is by no means stable or clear cut. Women may receive assistance in some months of the year and work in other months, or they may be on welfare and at the same time work openly or covertly.[12]

The very real shortcomings of traditional definitions of labor force activity that the dual labor market theory points up have prompted the development of new legislation and new indicators that take into account the quality of work. The Emergency Employment Act of 1971, for example, makes underemployment as well as outright joblessness a sufficient condition for eligibility; the Community Corporation Act of 1970 uses "subemployment rates" in ghetto areas as a criterion for regional allocation of Federal subsidies; the Bureau of Labor Statistics and the Manpower Administration have devoted large

amounts of time, money, and manpower to developing indicators of underemployment. Senate hearings also addressed to the measurement of underemployment will be held this year.

Conclusion

The theory of the dual labor market is proving itself to be a fertile source of intellectual inspiration to an increasing number of social scientists. It provides part of a new explanation of such phenomena as the simultaneous presence of unemployment and inflation. Perception of the structural foundations of ghetto poverty provided by the insights of dual market theory have helped to influence Senators, Congressmen, and their staffs to begin to design public service employment programs of the "first resort" rather than "last resort" kind. Evidence on the stratification of labor markets has led some researchers and policymakers to a new appreciation of the importance of minimum wages.

The pathbreaking work of Doeringer, Piore, and their students has defined a long and exciting agenda for theoretical and policy research, an agenda which may provoke innovative approaches to persisting problems. It is difficult to imagine what more could be expected of a new theory in labor economics. □

———*FOOTNOTES*———

[1] Robert E. Klitgaard, "The dual labor market and manpower policy," *Monthly Labor Review,* November 1971, pp. 45–48.

[2] Peter B. Doeringer and Michael J. Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, Mass., D.C. Heath, 1971); and Michael J. Piore, "Jobs and Training," in *The State and the Poor,* Samuel H. Beer and Richard E. Barringer, editors (Boston, Winthrop Publishers, Inc., 1970).

[3] Olympus Research Corporation. *The Total Impact of Manpower Programs: A 4-City Case Study* (Washington, U.S. Department of Labor, Manpower Administration, 1971); Earl Main, "A Nationwide Evaluation of MDTA Institutional Job Training," *Journal of Human Resources,* Spring 1968, pp. 159–170; Peter B. Doeringer, "Manpower Programs for Ghetto Labor Markets," *Proceedings of the Industrial Relations Research Association, December 1968,* May 1969, pp. 9, 17.

[4] Lawyers' Committee for Civil Rights Under Law and the National Urban Coalition, *Falling Down on the Job: The United States Employment Service and the Disadvantaged* (Washington, National Urban Coalition, 1971), p. 45.

[5] Bennett Harrison, "Education and Underemployment in the Urban Ghetto," *American Economic Review,* forthcoming.

[6] Doeringer, "Manpower Programs for Ghetto Labor Markets," pp. 10–11.

[7] A. A. Alexander, *Structure, Income, and Race: A Study in Internal Labor Markets* (Santa Monica, Calif., RAND Corporation, 1970), R–577–OEO.

[8] Without any increase in the stock of jobs, elimination of occupational discrimination by race would cause a 6- to 9-percent reduction in the incomes of white men lacking an eighth grade diploma—14 percent of all white men. The displacement of white women would be even greater. See Barbara R. Bergmann, "The Effect on White Incomes of Discrimination in Employment," *Journal of Political Economy,* March–April 1971, pp. 294–313.

[9] Barry Bluestone, et al., *Low Wages and the Working Poor,* University of Michigan-Wayne State University (Ann Arbor, Institute of Labor and Industrial Relations, 1971); Bluestone, "The Tripartite Economy: Low-Wage Industries and the Working Poor," *Poverty and Human Resources,* July-August 1970; Bluestone, *The Wage Determinants of the Working Poor,* unpublished Ph.D. dissertation, University of Michigan, 1972; David M. Gordon, *Class, Productivity, and the Ghetto,* unpublished Ph.D. dissertation, Harvard University, 1971; Gordon, *Economic Theories of Poverty and Underemplyoment* (Lexington, Mass., D.C. Heath, 1972); Bennett Harrison, *Education, Training, and the Urban Ghetto* (Baltimore, Johns Hopkins Press, 1972), especially the distributions in chapter four; Howard M. Wachtel and Charles Betsey, "Employment at Low Wages," reprinted as an appendix to Bluestone et al., *Low Wages and the Working Poor.* A major research project is now underway at the National Bureau of Economic Research, supported by the Manpower Administration, to study the structure of labor market segmentation.

[10] Harrison, *Education, Training, and the Urban Ghetto,* chapter five.

[11] *Aid to Families With Dependent Children: Selected Statistical Data,* U.S. Department of Health, Education, and Welfare, Social and Rehabilitation Service, National Center for Social Statistics (Washington, U.S. Government Printing Office, June 1971), Report H–4, tables 60–61.

[12] *1971 Manpower Report of the President* (U.S. Department of Labor, 1971) p. 97.

Research Summaries

LABOR REQUIREMENTS FOR PUBLIC HOUSING

JOSEPH T. FINN

CHANGES IN COSTS and in the amount of labor required for public housing construction during the 1960's are shown in the preliminary results of a new Bureau of Labor Statistics study. During this period—characterized by rising costs and increasing emphasis on apartments for the elderly—the study shows a decline in man-hour requirements per unit of output, measured in constant dollars.

Man-hour requirements, based on the preliminary data, reveal that in 1968 each $1,000 of contract construction required 177 man-hours. These man-hours were distributed among the various economic sectors, as shown in table 1. More than half of the total man-hours were expended in the construction industry (80 hours at the construction site); the remainder were spent in manufacturing, distribution, and selling the materials and equipment used.

The survey of 48 projects indicates that public housing construction during 1968 created 32,990 full-time jobs onsite and 5,129 jobs for contractors' offsite personnel. The latter include administrators, appraisers, engineers, architects, secretaries, and clerks. In addition, based on the preliminary estimate shown in table 1, production and distribution of the materials provided 30,249 full-time jobs.

Project characteristics

The average apartment in a public housing project completed in 1968 contained 811 square feet of livable space and cost $12,346 to construct, or $15.22 per square foot. In 1960, the average apartment was considerably larger (992 square feet) and cost substantially less to build. The cost per dwelling unit has increased significantly less than the cost per square foot, reflecting a decline in living space in the average public housing apartment.

A major cause of this decline in apartment size was the shift in emphasis toward providing more housing for the elderly. Fifty-eight percent of the apartments in the projects surveyed in 1968 were reserved for the elderly, compared with 9 percent in 1960.[1]

The average size and cost of the projects surveyed in 1960 and 1968 are shown below.

	1960	*1968*	*Percent change, 1960 to 1968*
Number of projects ...	31	48	..
Number of dwelling units	124	90	—28
Livable space (1,000 square feet)	125	73.3	—41
Square feet per dwelling unit	992	811	—18
Cost per dwelling unit ..	$10,598	$12,346	16
Cost per square foot ...	$10.68	$15.22	42

The predominant structural types in both surveys were reinforced concrete, load bearing masonry, and wood. A comparison of the dwelling units by structural type for the two surveys indicates no change in the use of reinforced concrete (45 percent) and load bearing masonry (30 percent). However, the incidence of dwelling units of wood frame structure increased from 13 to 20 percent.

The survey

The study was designed to measure the number of man-hours per $1,000 of construction contract for public housing. Forty-eight projects were selected to represent 354 projects scheduled to be completed between January 1967 and March 1968. These projects were sponsored by the Housing Assistance Administration of the Department of Housing and Urban Development. The onsite man-hour requirements were tabulated from weekly project payrolls

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provided by local housing authorities. Material requirements and construction costs were obtained (by BLS field interviewers) directly from the contractors.

Change in onsite man-hours

Onsite man-hours per $1,000 of contract cost declined substantially between 1960 and 1968. In 1960, 114 man-hours were required for each $1,000 of cost; in 1968 the comparable figure was 80 man-hours (table 1).

To a large extent, this decline in onsite man-hours reflects the impact of rising construction costs during the period. When a comparison is made between the two surveys, using square footage as a measure of output, onsite man-hours per 100 square feet remained unchanged.

In evaluating these figures, note should be taken of the lack of homogeneity in a measure of livable space (square feet) between 1960 and 1968. Although the average apartment size declined during the period, it appears that the reduction in space had no effect on the requirements for kitchen fixtures and appliances and bathroom facilities. Thus, the cost per dwelling unit rose less than the cost per square foot.

To test the sensitivity of the change in unit labor requirements, an alternate measure of output was used, based on a deflated measure of value.[2] When calculated in this fashion, onsite man-hours declined over 2 percent a year, as shown below.

	1960	*1968*	*Average annual percent change*
Man-hours per 100 square feet	122	122	...
Man-hours per 1,000 constant dollars	114	96	2.2

This discrepancy between the estimates of unit man-hour requirements points up the problems of measuring productivity in construction when significant changes occur in product mix. A more appropriate measure of output would account for all of the characteristics associated with real value, not just space alone. Although the price index used to derive man-hours per 1,000 constant dollars only approximates a true price index for public housing, it is nevertheless considered superior to a measure based on space alone.

Distribution of onsite man-hours

Sixty-four percent of the onsite hours were worked by skilled tradesmen (table 2). Carpenters were credited with the major portion, or 32 percent of these skilled hours. The fact that 29 percent of the houses studied had wood frames was a major fact contributing to the dominance of the carpenters. They were followed in descending order by plumbers, bricklayers, electricians, and painters. The five trades accounted for 48 percent of the onsite hours.

Thirty percent of the onsite man-hours were performed by laborers, helpers, and tenders. The South led the other regions in the use of these unskilled and

Table 1. Man-hour requirements, 1960 and 1968

Industry	1960 [1]			1968		
	Per $1,000	Per 100 square feet	Percent	Per $1,000	Per 100 square feet	Percent
All industries	241	257	100.0	177	269	100.0
Construction	132	141	54.8	94	143	53.1
Onsite	114	122	47.3	80	122	45.2
Offsite	18	19	7.5	14	21	7.9
Other industries	109	116	45.2	[2] 83	[2] 126	[2] 46.9
Manufacturing	62	66	25.7	46	70	26.0
Wholesale trade, transportation and services	29	31	12.0	25	38	14.1
Mining and all other	18	19	7.5	12	18	6.8

[1] Revised from data as published in **Labor and Material Requirements for Public Housing Construction** (BLS Bulletin 1402, 1964).

[2] Preliminary estimate developed by processing a 1963 bill of goods through the interindustry growth model. The final estimate of man-hour requirements reflecting the 1968 bill of materials will be included in a bulletin to be published in a few months.

Table 2. Percent distributon of onsite man-hours, by occupation and type of contractor, 1968

Occupation	Percent distribution	Contractor	Percent distribution
Supervisory, professional, technical and clerical	3.6	General	42.3
Skilled trades	64.3	Special trades	57.7
Asbestos workers	0.4	Carpentry, millwork	2.6
Bricklayers	7.8	Concrete	6.8
Carpenters	20.3	Electrical	5.9
Cement finishers	2.6	Masonry	6.9
Electricians	5.8	Painting	4.6
Elevator mechanics	0.5	Plastering and lathing	4.2
Glaziers	0.2	Plumbing, heating, and air conditioning	13.0
Lathers	1.4	Roofing and sheetmetal	0.9
Operating engineers	3.1	Site preparation and excavation	2.6
Ornamental ironworkers	0.6	Structural and ornamental iron	1.5
Painters	4.9	All other types	8.6
Plasterers	1.6		
Plumbers	9.3		
Reinforcing ironworkers	2.3		
Roofers	0.7		
Sheet-metal workers	1.0		
Soft-floor layers	0.6		
Structural ironworkers	0.6		
Title and terrazzo setters	0.6		
Laborers	23.4		
Helpers and tenders	6.8		
Truckdrivers and miscellaneous workers	1.9		

NOTE: Individual figures may not add to total 100, due to rounding.

semiskilled workers. This contributed heavily to the fact that the South had the lowest average hourly earnings.

Skilled trade apprentices accounted for 6 percent of the onsite hours for their occupations. However, electricians and plumbers showed a significantly greater than average use of apprentices—15 and 11 percent respectively. This is a reflection of the active apprenticeship programs in these two crafts.

Man-hours by type of contractor

The distribution of onsite man-hours by type of contractors shows a pattern that differs from the occupational distribution (table 2). For example, carpenters accounted for 20.3 percent of the man-hours, whereas, carpentry contractors supplied only 2.6 percent of the onsite man-hours. The majority of the carpenters are employed by other specialty trades contractors or the general contractors. For instance, concrete contractors will employ carpenters to build the wooden forms. Also, flooring contractors often hire carpenters.

Construction time

The average project required 64 weeks for completion, compared with 58 weeks for projects in the 1960 survey. In order to develop a typical employment pattern, the construction time for each project was divided into 10 equal parts or deciles and the onsite hours were allocated to these deciles. This distribution was as follows:

	Percent of onsite hours	
	1960	*1968*
1st decile	3.6	3.6
2d	8.7	7.6
3d	12.0	10.9
4th	13.2	13.1
5th	13.8	14.8
6th	14.0	14.6
7th	12.4	12.4
8th	10.5	10.4
9th	7.5	8.2
10th	4.3	4.4

The above tabulation discloses that the distribution of onsite hours during the construction period has not changed significantly from 1960 to 1968.

Final figures and a more detailed analysis will be published later this year in a BLS bulletin. □

FOOTNOTES

[1] *Consolidated Development Directory* (U.S. Department of Housing and Urban Development, Report S–11A, June 1967).

[2] The Bureau of the Census single-family housing price index, adjusted to exclude land and linked to the Boeckh Residential cost index, was used as a deflator.

WAGES IN TEXTILE DYEING AND FINISHING

JOSEPH C. BUSH

WAGE LEVELS in the nonwool textile dyeing and finishing industry vary widely by region, according to a Bureau of Labor Statistics survey. Production workers in the Southeast (slightly over three-fifths of the 60,378 covered by the December 1970 survey) averaged $2.43 an hour in straight-time earnings. In New England and the Middle Atlantic States, the two other major regions in the industry, workers averaged $2.62 and $3.11, respectively. The industrywide average was $2.59 an hour.

Between the winter of 1965-66, when the Bureau previously surveyed the industry, and December 1970, the nationwide average rose 32 percent—the same percentage increase recorded for average hourly earnings (exclusive of overtime) in all nondurable manufacturing industries.

During the same period, average hourly earnings advanced 33 percent in cotton textile dyeing and finishing plants, compared with 27 percent in manmade-fiber establishments. The manmade-fiber establishments accounted for approximately one-half of the work force in 1970—up from slightly more than one-third five years earlier.

In December 1970, workers in the cotton sector averaged $2.53 an hour—12 cents less than those in manmade-fiber mills. The same relationship held in the Middle Atlantic region but was reversed in the Southeast, where nearly four-fifths of the cotton workers and slightly less than one-half of the manmade-fiber workers were employed. In New England, the averages for these two groups were separated by

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Table 1. Average straight-time hourly earnings [1] of production workers in textile dyeing and finishing plants, by selected characteristics, United States and major regions,[2] December 1970

Characteristic	United States	New England	Middle Atlantic	Southeast
All establishments [3]	$2.59	$2.62	$3.11	$2.43
Type of finisher:				
Commission mills	2.68	2.64	3.21	2.30
For own account	2.51	2.56	2.67	2.49
Type of material:				
Cotton textiles	2.53	2.62	3.00	2.47
Manmade-fiber textiles	2.65	2.63	3.13	2.37
Size of community:				
Metropolitan areas [4]	2.76	2.56	3.17	2.45
Nonmetropolitan areas	2.46	2.73	2.57	2.43
Size of establishment:				
20–249 workers	2.70	2.58	3.11	2.15
250 workers or more	2.53	2.68	3.09	2.49
Labor-management contract status:				
Establishments with—				
Majority of workers covered	2.85	2.72	3.19	2.54
None or minority of workers covered	2.42	2.44	2.69	2.40
Selected occupations: [5]				
Color mixers	2.70	2.67	3.39	2.53
Continuous bleach range operators	2.48	2.66	2.68	2.46
Dyeing-machine tenders, cloth	2.78	2.69	3.21	2.39
Dyeing-machine tenders, yarn	2.69	2.50	3.16	2.47
Finishing range operators	2.68	2.56	3.12	2.41
Inspectors, cloth, machine	2.42	2.58	2.58	2.35
Janitors	2.14	2.39	2.76	2.02
Layout men, grey goods	2.61	2.62	2.93	2.32
Maintenance men, general utility	2.96	2.86	3.43	2.73
Mechanics, maintenance	3.20	2.93	4.02	3.06
Packers, shipping	2.52	2.52	2.85	2.30
Printers, machine	5.59	5.39	6.16	5.52
Printers, screen	2.91	2.79	3.20	2.68
Printing machine helpers	2.65	2.51	3.36	2.42
Winders, yarn	2.21	2.18	2.24	2.19

[1] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

[2] The regions comprise: **New England**—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; **Middle Atlantic**—New Jersey, New York, and Pennsylvania; and **Southeast**—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

[3] The survey did not cover establishments primarily engaged in dyeing and finishing wool textiles, but it included establishments primarily processing other types of fibers in addition to cotton and manmade; such mills employed 538 workers.

[4] Standard Metropolitan Statistical Areas, U.S. Office of Management and Budget, January 1968.

[5] The forthcoming bulletin will provide information for other occupations, in addition to those shown here.

only 1 cent an hour. (See table 1.)

Among the occupations selected to represent the various wage levels of production workers in the industry, averages ranged from $2.14 an hour for janitors to $5.59 for machine printers. Cloth dyeing machine tenders, numerically the most important group, averaged $2.78 an hour. Occupational averages were usually highest in the Middle Atlantic region and lowest in the Southeast.

Paid holidays, paid vacations, and at least part of the cost of life, hospitalization, and surgical insurance were provided for over 95 percent of the production workers. At least three-fourths of the workers were covered by sickness and accident insurance, basic medical insurance, and retirement plans.

A comprehensive report on the study is expected to be issued by mid-1972. Separate releases were issued earlier for the New York and Philadelphia areas and for Georgia, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, and South Carolina. Copies are available upon request to the Bureau or any of its regional offices. □

EMPLOYMENT OF SCIENTISTS AND ENGINEERS IN 1970

MICHAEL F. CROWLEY

THE GROWTH of employment of scientists and engineers in private industry experienced during the 1960's came to a halt in 1970, according to a Bureau of Labor Statistics survey. In 1970 it stood at 1,075,000, about the same number as in 1969. Employment of engineers leveled at about 855,000 and of scientists at nearly 220,000. Little or no growth occurred in each science occupation surveyed. Even employment of mathematicians, which showed a very rapid average annual growth rate of 8 percent over the 1960 decade, did not increase between 1969 and 1970. Employment of technicians also remained relatively constant at 785,000. (See table 1.)

Despite this lack of change for private industry as a whole, significant changes took place within industries. Increases ranging from 5 to 13 percent occurred in instruments, machinery, public utilities, engineering and architectural services, and transportation equipment other than aircraft and automobiles.

Decreases in employment occurred in industries that reflected the cutbacks in defense and aerospace expenditures over the year. The greatest decline among scientists and engineers took place in the ordnance industry, where these jobs decreased by 16.7 percent and those of technicians fell by 19.4 percent; in the aircraft and parts industry, the corresponding declines were 6.5 and 9.2 percent, respectively. Other significant declines were noted in the primary metals (7.2 percent) and fabricated metals (3.2 percent) industries.

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Table 1. Estimated employment of engineers, scientists, and technicians in private industry, 1970

[In thousands]

Industry	Scientists and engineers	Engineers	Scientists								Technicians
			Total	Mathematicians	Chemists	Physicists	Metallurgists	Earth	Other physical scientists	Life scientists	
All industries	1,074.1	856.7	217.4	39.6	92.2	21.0	15.5	16.2	8.8	24.1	786.3
Manufacturing	732.9	583.1	149.8	20.7	77.6	13.5	14.1	1.0	6.1	16.8	422.8
Durable goods manufacturing	558.5	493.8	64.7	17.2	18.0	10.8	13.1	.4	3.7	1.5	345.6
Ordnance and accessories	52.5	45.4	7.1	3.0	1.2	2.2	.3	.1	.1	.2	16.2
Primary metals	29.8	19.6	10.2	.4	2.4	.2	6.8	---	.4	---	20.6
Fabricated metals	30.2	27.6	2.6	.4	.9	.3	.9	---	.1	---	25.8
Machinery	94.1	85.1	9.0	3.8	2.0	1.1	1.3	---	.6	.2	78.2
Electrical equipment	163.4	149.0	14.4	4.3	3.0	3.5	1.4	---	1.9	.3	110.2
Transportation equipment	131.7	120.2	11.5	4.3	2.9	1.9	1.9	.1	.3	.1	57.6
Instruments and related products	37.5	31.5	6.0	.7	3.3	1.3	.3	---	---	.4	23.4
Nondurable goods manufacturing	174.0	89.3	85.1	3.5	59.6	2.7	1.0	.6	2.4	15.3	77.2
Chemicals and allied products	107.3	46.4	60.9	1.9	42.8	2.3	.9	.2	.8	12.2	46.8
Mining	32.5	17.8	14.7	.3	1.0	.1	.3	12.9	.1	---	13.5
Contract construction	51.3	50.3	1.0	.5	.1	---	---	.4	---	---	32.4
Transportation, communications, and public utilities	58.3	55.4	2.9	1.3	.7	---	---	.4	.4	.1	72.3
Business services	157.8	123.6	34.2	7.9	9.6	7.0	.8	1.5	2.0	5.4	197.7
Commercial laboratories	75.2	48.3	26.9	6.0	8.6	5.8	.6	.9	1.5	3.5	53.0
Engineering and architectural services	80.1	74.9	5.2	1.8	.7	1.2	.2	.6	.5	.2	119.3
All other industries	41.3	26.5	14.8	8.9	3.2	.4	.3	---	.2	1.8	47.6

NOTE: Individual figures may not add to total due to rounding.

Employment of scientists and engineers in research and development declined from 1969 to 1970 by slightly less than 4 percent, from about 390,000 to 375,000, generally following the pattern of total employment of these workers. There were, however, some significant patterns in the over-the-year changes. Of major importance was an increase in research and development employment of scientists and engineers of over 11 percent in commercial laboratories; Federal cutbacks evidently did not affect these establishments as much as they did other industries. The most significant cutbacks were in the ordnance industry, where research and development employment declined by 30.9 percent, and in aircraft and parts, where it dropped by 16.5 percent. In general, research and development employment declined in durable goods manufacturing and increased slightly in nondurable goods industries. As a proportion of the total, the employment of scientists and engineers in research and development declined from 36.7 percent in 1969 to 34.9 percent in 1970.

Detailed tabulations showing the results of the 1970 survey of scientific and technical personnel in industry are available on request from the Bureau of Labor Statistics as long as the supply lasts. Similar data for 1969 and 1968 are published in *Scientific and Technical Personnel in Industry, 1969* (BLS Bulletin 1723). □

EMPLOYMENT GROWTH GREATEST IN SOUTHERN AND WESTERN STATES

NONAGRICULTURAL EMPLOYMENT grew more rapidly in the Southern and Western States than in the Northeastern and Midwestern States during the past three decades, with Nevada posting the highest rate of employment growth during the period—increasing its 1939 level of 35,000 by an average of 5.8 percent a year. Arizona and Florida followed closely, with average annual rates of about 5.7 percent.

The rate of employment growth was slowest in West Virginia and Rhode Island, each of which scored annual gains of less than 1.2 percent over the 31-year period. For the Nation, the average annual rate of growth was 2.7 percent.

Employment and Earnings, States and Areas, 1939–70, a new statistical report from the Bureau of Labor Statistics, provides historical data on employment, hours, and earnings for each State, the Dis-

trict of Columbia, and 216 metropolitan areas. The 672-page report (BLS Bulletin 1370-8) is available for $4.50 from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or from any of the BLS regional offices listed on the inside front cover.

In all regions except the West North Central, employment in the service-producing industries grew at a faster rate than in the goods-producing sector. Goods-producing employment grew by an average of about 2.0 percent a year, whereas service-producing employment climbed by about 3.1 percent a year.

Nonagricultural employees in the Pacific States more than doubled between 1939 and 1970, with services employment accounting for 74 percent of that increase. The Mountain region, second only to the Pacific region in rate of employment growth, had an even larger proportion (79 percent) of its employment growth in the service-producing industries.

The East North Central States, while having the third slowest rate of employment growth, nonetheless were the frontrunners in the actual number of new jobs. The region gained 7.7 million employees since 1939, 67 percent of whom were in the service-producing sector.

During 1970, the average weekly earnings of production workers in manufacturing ranged from $191.99 in Alaska to $97.69 in Mississippi. The national average in the 1939–70 period climbed six-fold, from $23.64 to $133.73, while prices nearly tripled.

Bulletin 1370-8 is also available on microfiche, for 95 cents, from the U.S. Department of Commerce, National Technical Information Service, Springfield, Va. 22151. Make check or money order payable to the National Technical Information Service, and refer to item PB-206709. □

Impact of public sector unionization on the private sector

Public sector unions are apparently able to organize workers who have resisted organizational effects by private sector unions—professionals, clericals, technicians, et al. Proportionately, there is a different mix in public and private employment—the public sector has relatively greater numbers of professional and clerical employees and fewer people in blue-collar occupations. Public sector unions could not have achieved the successes of the past decade without the ability to organize professional and clerical employees. I suggest that the potential for spillover into the private sector is substantial.

There is one major difference between the collective negotiations of professional employees and those of nonprofessionals. Professional employees are not content to negotiate the so-called "bread and butter issues"—wages, pensions, vacations, health insurance, and similar benefits. Teachers want to negotiate curriculum, disciplinary systems, grievance procedures, faculty-student ratios, class size, and so forth. Other professionals feel that their professional training and experience should be utilized in a system of participatory management to develop the policy decisions which affect them. These employees have been in the vanguard of the new "relevance and involvement" —in short, to be actively involved with the decisionmaking process which governs their work life. This is an increasingly important element in job satisfaction and it is bound to spread to other types of employees in both the public and private sectors.

—ROBERT D. HELSBY,

Chairman, New York State Public Employment Relations Board, at the White House Conference on the Industrial World Ahead, Washington, February 7–9, 1972.

Foreign Labor Briefs

COST-OF-LIVING INDEXES FOR U.S. EMPLOYEES ABROAD

BEGINNING WITH THIS ISSUE, the *Monthly Labor Review* will publish quarterly the latest living cost indexes for selected foreign cities. The indexes are used by private business organizations to calculate cost of living allowances for their employees stationed in those cities.

U.S. Government employees stationed abroad receive "post allowances" if their living costs are significantly higher than those in Washington, D.C. The allowances are based on indexes prepared by the Department of State, comparing the costs of representative goods and services in foreign cities with the costs of equivalent goods and services in Washington.

The "local index," listed in table 1 for selected cities, is a comparison of the prices of goods and services at local retail outlets in the foreign city and in Washington, D.C., weighted by the expenditure pattern of a Washington-based Federal employee and adjusted by "use factors" to reflect modifications in consumption necessary to maintain an American pattern of living in the foreign city. Business firms and other organizations often use the "'local indexes" to establish cost-of-living allowances for their employees stationed abroad. The State Department emphasizes, however, that the indexes exclude housing and education, which the Department covers with separate allowances. Foreign income tax and social security payments are also excluded.

Government "post allowances" are based on the "U.S. Government index," which differs from the local index in that it reflects the prices of goods imported to the foreign post and price advantages available only to U.S. Government employees. The allowances are calculated by applying the index to estimated spendable income less housing expenditures. Spendable income is base salary less income taxes, retirement deductions, life insurance payments, gifts, contributions, and savings. Spendable income less housing expenditures for the average married couple with children is estimated to range from 62 percent of a $5,000 base salary to 55 percent of a $20,000 base salary.

The indexes are not appropriate for comparing living costs of Americans in the United States with those of nationals of a foreign country. Average compensation to U.S. nationals frequently is not similar to average compensation in the foreign country, and the expenditure pattern of such personnel differs from that of nationals of the host country. Also, because the indexes are place-to-place comparisons, they cannot be used to measure cost changes over time in the foreign cities.

Basic price data for the indexes are obtained from a price report from the post and a similar price report completed by the Bureau of Labor Statistics for Washington, D.C. Prices are reported for about 100 items, covering food, clothing, household operations and equipment, transportation, medical and personal care, recreation, and food away from home. The average price of each item in the foreign city is compared with the average price of the corresponding item in Washington, D.C., to obtain item price ratios. The final index is a combination of the item price ratios, each weighted by the relative importance of the expenditure category it represents.

The local indexes are calculated as of the survey date and at the exchange rates of foreign currencies shown in the table. Price surveys are conducted annually in cities where the U.S. Government pays a post allowance; it usually makes only biennial surveys in cities where an allowance is not paid. If currency is converted at a different rate than the rate shown in the table, the local index may be adjusted by applying the following formula (with the

Table 1. Indexes of living costs abroad, excluding housing

[Washington, D.C. = 100]

Country and city	Survey date	Monetary unit	Rate of exchange per U.S. $1	Local index
Argentina: Buenos Aires	May 71	Peso	[1] 4.20	99
Australia: Canberra	Oct. 71	Dollar	0.8540	100
Belguim: Brussels	June 71	Franc	[1] 49.65	126
Brazil: Sao Paulo	Nov. 70	Cruzeiro	[1] 4.8	90
Canada: Ottawa	Oct. 71	Dollar	1.00	98
France: Paris	Dec. 70	Franc	[1] 5.52	131
Germany: Bonn	Dec. 71	D.M.	3.22	140
Hong Kong	Mar. 71	Dollar	6.00	92
India: New Delhi	Oct. 71	Rupee	7.6	[2] 86
Italy: Milan	April 71	Lira	[1] 622	122
Japan: Tokyo	Feb. 71	Yen	[1] 360	120
Mexico: Mexico, D.F.	April 70	Peso	12.5	88
Netherlands: The Hague	Feb. 71	Guilder	[1] 3.61	113
Philippines: Manila	Feb. 71	Peso	6.40	73
S. Africa: Johannesburg	Mar. 71	Rand	[1] 0.7092	95
Spain: Madrid	Oct. 68	Peseta	[1] 69.6	83
Sweden: Stockholm	May 71	Krona	[1] 5.17	132
Switzerland: Geneva	April 71	Franc	4.08	118
United Kingdom: London	April 71	Pound	[1] 0.4167	111
Venezuela: Caracas	Aug. 71	Bolivar	4.49	115

[1] Current exchange rate differs from the rate shown by at least 5 percent.

[2] U.S. Government index reflecting the higher cost of imported goods generally used by Americans in place of local goods.

SOURCE: U.S. Department of State, Allowances Staff.

exchange rate expressed in units of local currency per U.S. dollar):

$$\frac{\textit{State Department exchange rate}}{\textit{other exchange rate}} \times \textit{local index} = \textit{new index}$$

This conversion shows what the local index would have been as of the date of the State Department survey had all prices been converted at the different rate of exchange. If the new exchange rate is the result of a currency revaluation, however, the revaluation alone would have automatically affected the prices of any goods imported into the country and sold locally. Similarly, any other action which significantly alters price levels in either the foreign city or in Washington, D.C., will affect the relative price comparisons. Therefore, any interim adjustments to the indexes between surveys should be based on the new exchange rate, the relative change in prices in the foreign city in comparison with Washington, D.C., since the last survey by the Department of State, and the probable effect of the revaluation on prices.

The complete list of indexes of living costs abroad for all cities, as well as the U.S. Department of State living quarters allowances, is published quarterly and is available upon request from the Office of Publications, Bureau of Labor Statistics. □

MALAYSIA STRIVES FOR ETHNIC EQUALITY

SOCIAL AND ECONOMIC equality with justice in a multiracial society are the goals of an experiment in one of the youngest states of the world, Malaysia. The effort is intended to benefit primarily the Malays, the most disadvantaged major ethnic group of the new nation.

Rectification of the socioeconomic imbalance of the areas now constituting Malaysia had been the objective even of colonial administrations, and subsequently it became the goal of the new country's government. The current Second Malaysia Plan for the period 1971–75 is primarily designed for the promotion of economic and social equality among the various ethnic groups. J. P. Arlès of the International Labor Office has reported[1] that measures have been taken to develop a class of Malay entrepreneurs. Stimulation of the country's economic growth is the obvious need, and the Second Plan boldly aims at a 6.5-percent rate of increase of the country's gross national product. But, said the author, "while the plan favours the Malay ethnic group in order to help it to catch up, it declares that no particular group must experience any loss or feel any sense of deprivation thereby." □

FOOTNOTE

[1] J. P. Arlès, "Ethnic and Socioeconomic Patterns in Malaysia," *International Labor Review*, Geneva, December 1971, pp. 527–553.

MANPOWER ACTIVITY AS AN ECONOMIC INSTRUMENT

It is well to ask why [the manpower] field, so pregnant with good ideas, is experiencing such difficulty in their realization. I suggest there are three reasons, one focused on "what we do" and two on "how we do it." The "what" reason has to do with policy. The more I examine our activity in the manpower field the more I am convinced it suffers from an absence of policy focus.

The structure of American government and the pragmatic tradition of American politics have too much defined public policy in forms of program, and in consequence have inhibited the development of true policy. In effect, a collection of programs is put together, and it is hoped these will somehow add up to a policy. There is little regard for system. Programs related to a single part of a system; policy seeks to respond to the system in its entirety.

Certainly in earlier and simpler times a programmatic approach was an effective way to go about public business. The problem, it seems, comes with complexity. If gears are to mesh in a complex society, government programs must *fit in* rather than *stand out*. It is a wise program that knows its place and does not aspire beyond its station.

Certainly our manpower programs have grown topsy-like in the last 10 years. The result is that today we have an impressive accumulation of program, but little in the way of cohesive policy focus.

When I discussed manpower policy recently with Kenzaburo Hara, the Japanese Labor Minister gave me a one-sentence statement of that nation's manpower policy. He said it focused on "grasping of talented people and rediscovery of human capacities, cultivation of rewarding job opportunity, and the recovery and enhancement of humanity through it." Quite simply, this means that Japan endeavors to cultivate and capitalize on the strengths of its manpower resource. If anything, our policy is the opposite, we seek to remedy weaknesses. But we do not do it with cohesive breadth or adequate impact.

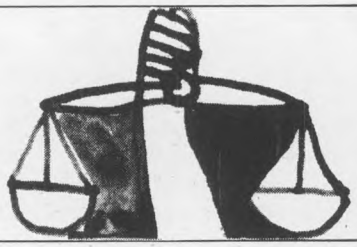
There are two reasons limiting our manpower progress that fall in the "how we do it" category. First, we have too much program control and concentration at the national level. And second, we have not devised a suitable system to bring the citizen and his government together for effective manpower service at the community level.

The first deficiency we hope to remedy in substantial measure with a revenue-sharing approach to manpower programs—to let local communities use uncategorized funds to respond to local needs. The remedy for the second deficiency is more elusive. We need to bring together, both physically and administratively, such diverse services as unemployment compensation, labor exchange activity, training and related services, and certainly the contemplated new effort to get welfare recipients into jobs.

From a bureaucratic view we may be doing these things reasonably well now. From the view of the citizen, our activity is fractionated and unresponsive. A winning wager would be that the next 10 years will produce widespread system changes.

—SECRETARY OF LABOR J. D. HODGSON,
Interstate Conference of Employment Security Agencies,
October 1971, San Juan, P.R.

Significant Decisions in Labor Cases



Church and labor law

AS AN EMPLOYER, a church is not entirely exempt from the application of labor law. The National Labor Relations Board recently stressed that labor-management relations in commercial enterprises owned and operated by a church for profit are subject to the Board's jurisdiction if the operations substantially affect interstate commerce, even if the profit is ultimately used to further religion. (*First Church of Christ, Scientist.*[1])

The case involved the Christian Science Church, whose center is in Boston; the NLRB refers to it here as "a nonprofit religious organization, the 'Mother Church' of the Christian Science religious denomination." The Church disputed the Board's authority to order representation elections among electricians and carpenters in its employ.

In addition to the church edifice, the Boston properties of "Mother Church" consist of a whole complex of buildings, including some containing stores and apartments, as well as numerous publications, among them the daily *Christian Science Monitor* of worldwide circulation. The Church owns and operates these properties pursuant to its bylaws and subject to the authority of its board of trustees. Apartments and other buildings are rented for profit, grossing an amount of over $500,000 a year; the publishing enterprises also are operated on a profit basis, with the gross annual income of the *Monitor* alone exceeding $1 million a year, and its across-State-line purchases approximating the same amount. Net profit from the publishing operations goes to the Church's treasury. Some of the publications are limited to strictly religious material, others—including the *Monitor*—carry world news and other secular material, although they usually contain also articles on religion and church.

The Church maintained that "all of [its] activities . . . are totally involved with the furtherance of the Christian Science religion and there is no evidence of any outside 'commercial enterprise.' " Further, it held that "as its publishing activities are required by church bylaws, they are not commercial in nature. . . . [T]he fact that the *Monitor* accepts advertising does not make its publication a commercial enterprise, as it is designed to spread religion and to present the news from the standpoint of the Christian Science religion." (As related by the Board.)

Challenging the Board's intervention in its labor relations, the Church argued that:

First, application of the National Labor Relations Act to a purely religious institution would violate the First Amendment to the Constitution. Since such application "would bring an excessive government entanglement with religion, imposing a full range of liabilities and obligations directly controverting the official doctrine of the Church and, inevitably, infringing upon the free exercise of religion by the Church through its board of directors, [the Church] could not be true to the dictates of [its] rules and still engage in good-faith collective bargaining under the National Labor Relations Act." (Board's language.) Second, the Church's real estate and publishing enterprises are not commercial businesses in the sense used by the Board, hence the Board should not assert jurisdiction over them. Third, even if some of the Church's operations were to be considered as commercial, the employees in question spend little time on them.

Regarding the constitutional issue, the Board said:

> It is well settled that there is a distinction under the First Amendment, between the freedom to hold religious beliefs and the freedom of conduct based on religious beliefs. The former is absolute, the latter may be curtailed for the protection of society and has been so curtailed in a wide range of areas including the labor relations area. The act has as its objective the protection of society by the avoidance or minimization of industrial strife which interferes with the flow of commerce.
>
> . . . The societal interest in requiring conformance

"Significant Decisions in Labor Cases" is written by Eugene Skotzko, Office of Publications, Bureau of Labor Statistics.

with the statutory commands is sufficiently compelling to warrant the resultant interference in a person's freedom to conform his conduct to his religious beliefs. It is on this basis that we have previously held that an employer must comply with the provisions of the act and bargain with a union despite claims that such bargaining would violate the employer's religious conviction.

The enterprises in which the Church engaged, the Board held, were "substantial [and] in the normally accepted sense commercial" operations in interstate commerce, and they affected commerce. As such they warranted the Board's intervention. The amount of time the employees spend on those operations (as distinguished from the work connected strictly with church activities) is large enough to entitle them to self-organization under the law.

The Church also argued that previous NLRB decisions[2] against exemption of churches from the act did not govern the present situation because they involved application of the act to individuals, not to churches as institutions. An individual, the argument went on, "may have a particular interpretation of his own religious beliefs and [his] sincerity may be difficult to determine. On the other hand, the Church's beliefs are well established and widely disseminated and not subject to attack for lack of sincerity." (As restated by the Board.) To this the Board replied, "we know of no case which holds that the First Amendment provides greater protection in the exercise of religious beliefs to churches than to individuals. We perceive no reason why the application of the act would be constitutional when applied to an individual and yet unconstitutional when applied to a church under essentially the same circumstances."

Election was directed. Member Kennedy dissented, saying that asserting jurisdiction in this situation will not effectuate the policies of the act. He cited as authority the Board's contrary decision of 1954 in *Lutheran Church, Missouri Synod.*[3]

(The 1954 case involved a church that owned and operated a radio station to further the teaching of the gospel. It made out-of-State purchases and subscribed to news services. Its expenditures were relatively small. The Board ruled: "Without deciding whether in its operation of [the radio station] the employer falls within the jurisdiction of the act, we find that it would not effectuate the policies of the act to assert such jurisdiction over a religious organization which operates the station on a nonprofit and noncommercial basis in connection with and in furtherance of its religious objectives." At p. 860.)

Union limits on production

Once again the validity of a union rule setting a production ceiling came before a court of appeals for judgment. This time, however, the rule failed to obtain approval. (*Painters District Council No. 9.*[4]) The court's decision was contrary to the 1969 ruling of the Supreme Court, in a seemingly identical situation (in *Scofield*[5]), that a union had the right to establish a work limit and to collect fines from the members who exceeded it.

In the present case, a union of painters in the New York City area established a production quota for its members—painting no more than 10 rooms per week, with penalty for violation. The purpose, it alleged, was "to relieve the pressure on painters to work quickly so as to reduce the number of violations of trade rules, increase the health and safety of union members, and improve the quality of their work." (As stated by the appellate court.) But the results were less than satisfactory to all concerned. The union's contract with an employer association called for a 35-hour week, yet some of the painters reached their 10-room quota and stopped working in less than that time and were, in some instances, either discharged or docked for the time not worked. And production declined to below the usual rate of 11.5 rooms per week. The association charged the union with unilaterally modifying the contract, a violation of section 8(b)(3) of the Labor Management Relations Act, and the NLRB found the union guilty as charged.

In upholding the NLRB, the appellate court ruled: ". . . By enforcing the rule, the union is in substance modifying [its collective bargaining agreement's] term to stipulate that journeymen are not to work a 5 day, 7-hour per day workweek, but are to work only so long as it takes them to paint 10 rooms." This modification required bargaining with the association, the court said.

The basic issue involved in this case, as it was in *Scofield,* was the scope of a union's authority to impose rules on its members and to levy and collect fines for their violation. The law (section 8(b)(1)(A) of the LMRA) permits unions to promulgate rules for the regulation of "internal affairs." As the Supreme Court has ruled, particularly in *Scofield,* the effectiveness of such a union rule ends where a member's status as employee begins and where the rule begins to "frustrate the overriding policy of labor laws."[6] Setting a produc-

tion limit, if it is designed to protect the members' health and to safeguard their other interests—including freedom from exploitation on the job—obviously is within the range of legitimate union actions.

A factor in job discrimination

Is a doctor's racial segregation of patients an evidence that he also practices racial discrimination in employment? It may be, said a Federal court of appeals recently, and this is why the Equal Employment Opportunity Commission should have access to a doctor's records of his patients when investigating an employee's charge that segregation of patients is used as a form of job discrimination. (*Rogers* v. *EEOC.*[7])

The case involved a firm of optometrists whose former employee, a Spanish-American woman, charged that she had been discharged because of her ethnic origin. She cited "segregating the employees" as one evidence, or form, of unlawful discrimination in employment on the part of the optometrists.

The stubborn question during the litigation was, how can racial separation of patients in the course of treatment constitute a crime under a statute—Title VII of the Civil Rights Act of 1964—which bans discrimination in employment without cause but is not concerned with the segregation of patients on any basis? Overruling a lower court, the circuit judge who delivered the appellate opinion said:

> . . . I think that the relationship between an employee and his working environment is of such significance as to be entitled to statutory protection.
>
> Section 703(a)(1) of Title VII . . . provides that it shall be an unlawful employment practice for an employer [among other things] 'to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment' [because of race and for other reasons]. This language evinces a congressional intention to define discrimination in the broadest possible terms. . . .
>
> We must be acutely conscious of the fact that Title VII . . . should be accorded a liberal interpretation. . . . [E]mployees' psychological as well as economic fringes are statutorily entitled to protection from employer abuse, and . . . the phrase 'terms, conditions, and privileges of employment' in section 703 is an expansive concept which sweeps within its protective ambit the practice of creating a working environment heavily charged with ethnic or racial discrimination. . . . One can readily envision working environments so heavily polluted with discrimination as to destroy completely the emotional and psychological stability of minority group workers. . . .
>
> . . . As patently discriminatory practices become outlawed, those employers bent on pursuing a general policy declared illegal by congressional mandate will undoubtedly devise more sophisticated methods to perpetuate discrimination among employees. . . .

Since separation of patients may be a form of job discrimination, the judge said, "the Commission should have the right to investigate and employ its expertise to determine whether . . . the facts in the particular enterprise give rise to an unlawful employment practice. Thus, the *possibility* that the [firm's] segregation of its patients could encompass an unlawful employment practice justifies an EEOC investigation. . . ."

Owner-drivers as employees

An old and vexing issue in labor litigation is that of relationship between a carrier and a truckdriver who uses his own truck to do the carrier's work. Is the truckdriver an employee or an independent contractor? A recent decision of the NLRB made it clear that mere ownership of a truck does not necessarily make the owner-driver an independent businessman. (*The Aetna Freight Lines.*[8])

In this decision, the Board reaffirmed its traditional right-of-control test as the formula for determining this relationship. Under the test, the Board said, "an employer-employee relationship exists when the employer reserves the right to control not only the ends to be achieved, but also the means to be used in reaching such ends." The facts in a given situation determine whether the employer has such control. In this case, the many facts testifying to the carrier's effective control of the owner-drivers and their equipment included the following (as established largely by an NLRB regional director):

- The Interstate Commerce Commission's regulations required the carrier to have "extensive control over the operation of the leased vehicles during the term of the leases" (regional director's language), with responsibility for making the drivers comply with the applicable ICC regulations.
- "The lease agreements place[d] the leased equipment under the exclusive possession, control, and use of the employer who assume[d] full responsibility for the equipment to the public, the shipper, and the ICC. . . ." (Regional director's language.)
- The leased trucks exhibited the carrier's name and bore a series number assigned by him.
- The carrier provided fuel, lubrication, and maintenance for the vehicles, and made cash advances for the procurement of equipment and parts and for other reasons—even for the license tags.
- The carrier provided cargo insurance and carried

liability and property insurance on the leased trucks.

- The owner-drivers received compensation (occasionally on hourly basis) according to a schedule determined by the carrier.
- All drivers had to file employment applications and produce medical certificates that remained with the carrier.
- All drivers were under the same supervision.
- The carrier set age and experience qualifications.

In the Board's opinion, these facts clearly showed that the employer had a full "right to control not only the ends . . . but also the means" toward them. The owner-drivers were the carrier's employees.

The case involved a union's efforts to gain representation of the carrier's drivers, including the owners of the leased trucks. The company argued that the owner-drivers were independent contractors.

Re: simultaneous bargaining

Separate contracts cover the bargaining units of Shell Oil Co.'s employees represented by various unions, but the company also maintains uniform fringe benefit plans (such as pension and life insurance programs) not written in the contracts. Changes in fringe benefits are formulatd by the company's central office and communicated to employees and their unions by mail. They are identical for all employees and go into effect on the same date unless a union objects and requests negotiation —separately for each unit.

In 1968, the company announced certain changes to which the Oil, Chemical and Atomic Workers, which represents 19 units of the company's employees, took exception and requested bargaining—but bargaining for all 19 units at the same time and place. "Inherent in our proposal," read the union's letter to the company, ". . . is the concept of simultaneous bargaining for all of the affected bargaining units." The letter stipulated that "[a]ny agreement reached . . . would be applicable to and binding upon each of the separate bargaining units represented."

When the company refused to engage in such negotiations, pointing to the existence of separate contracts, the union filed refusal-to-bargain charges. Joined in by the NLRB General Counsel, the union maintained that Shell's rejection of its request was "unreasonable, and served only to frustrate meaningful bargaining." The benefit plans, the changes proposed by the company, and the union's counterproposals were identical for all employees, it said; under these circumstances, Shell's refusal was indicative of its desire to perpetuate the "ineffective bargaining" on a unit-by-unit basis that had allegedly occurred in the past.

The company replied that, if accepted, the union's proposal would have brought about a single bargaining unit, at least for the purpose of bargaining over fringe benefits, while the company was obligated to bargain only on the basis of the individual units established by the NLRB.

An NLRB trial examiner agreed with the company, and was subsequently upheld by the Board. (*Shell Oil Co.*[9]) He conceded that, "[o]n equitable considerations and without regard to existing law, the union's position [was] not without considerable appeal." If it was proper for the company to effect changes "on the basis of a collective judgment, centrally arrived at" and to offer them to all units "on common basis," it should be also proper "to meet and bargain with all . . . units on the same basis," he said.

But, "[e]quitable considerations aside, . . . the applicable principles of law, as they have heretofore been declared by the Board with court approval, appear to support Shell's position. . . ." He added that, of course, the parties may voluntarily agree to alter the existing unit. In the present situation, however, the union's proposal that "all units were to be treated as a single combined group" (trial examiner's language) amounted to no less than a proposal for unit alteration to which the employer refused to agree.

A thwarted devotion

A union won a representation election among employees of a motel, but the NLRB set the election aside because the union's victory came largely through "active and outspoken support" of a supervisor of the voting employees. Under the law, a supervisor is identified with management. (*Flint Motor Inn Co.*[10])

In the NLRB's words, the supervisor in question "had the major supervisory role" at the motel, with "authority to hire, train, discipline, schedule work, including overtime, and supervise the motel's entire complement of kitchen employees [in addition to other important responsibilities]. These responsibilities brought [him] into contact with approximately 60 percent of the motel's staff each day. [H]e was a salaried employee . . . and the second highest paid employee in the motel."

The Board explained: There was a possibility that the supervisor's ardent and active support of the union during the election campaign "could coerce an employee into supporting the union out of fear of future retaliation by a union-oriented supervisor." The superior's "opportunities for affecting the employment status of regular employees in the unit were considerable. . . ." Although there was no indication that he would do so, the possibility was there, nevertheless. "Consequently," the Board held, "there is a reasonable basis for concluding that possible fear of supervisory retaliation destroyed the employee's freedom of choice and constituted interference with the laboratory conditions which the Board seeks to maintain during an election campaign. . . ." A second election was ordered. □

———*FOOTNOTES*———

[1] *The First Church of Christ, Scientist in Boston* and *Local 103, Brotherhood of Electrical Workers, and Local 33, Brotherhood of Carpenters,* 194 NLRB No. 174, January 13, 1972.

[2] The decisions cited were: *Western Meat Packers, Inc.,* 148 NLRB 444 (1964)—enforcement denied on other grounds, 350 F.2d 804 (C.A. 10, 1965); *A. C. Rochat Co.,* 150 NLRB 1402 (1965); *Cap Sante Vue, Inc.,* 172 NLRB No. 176 (1968); and *Campbell,* 172 NLRB No. 174 (1968). Decisions in the two companion cases of *Cap Sante Vue* and *Campbell* have been enforced, 424 F.2d 883 (1970)—see *Monthly Labor Review,* April 1970, pp. 75–76.

[3] *Lutheran Church, Missouri Synod,* 109 NLRB 859 (1954).

[4] *New York District Council No. 9, Brotherhood of Painters* v. *NLRB* (C.A. 2, Nos. 71–1272 and 71–1560, December 27, 1971).

[5] 394 U.S. 423; see *Monthly Labor Review,* June 1969, pp. 64–65.

[6] See discussion of *Scofield,* ibid.

[7] *Dr. N. Jay Rogers* v. *EEOC* (C.A. 5, No. 30651, December 21, 1971).

[8] *The Aetna Freight Lines, Inc.* and *Association of Special Haulers, Local 100,* 194 NLRB No. 120, December 23, 1971.

[9] *Shell Oil Co.* and *Oil, Chemical and Atomic Workers,* 194 NLRB No. 166, January 13, 1972.

[10] *Flint Motor Inn Co.* and *Local 794, Hotel and Restaurant Employees,* 194 NLRB No. 115, December 23, 1971.

Precedent cases were cited: *Stevenson Equipment Co.,* 174 NLRB No. 128 (1969); and *Turner's Express, Inc.,* 189 NLRB No. 23 (1971). Both cases involved minor supervisors, with limited opportunities for affecting employment status of the regular employees, or supervisors who had been terminated well in advance of the election. In each case the election was affirmed and the union certified.

Changes in Wage Calendar information

The following changes should be made on page 11 of table 7, "Expiration, reopening, and wage-adjustment provisions of selected collective bargaining agreements, January–December 1972," in the January 1972 *Monthly Labor Review:*

Kaiser Aluminum and Chemical Corp., under *Deferred wage increase,* change to: "June: 12½ cents. Increment increases to 24½ cents."

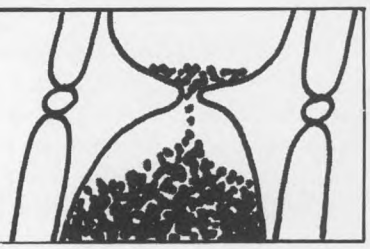
Nine major basic steel companies, under *Automatic cost-of-living review,* change to "August 1"; under *Deferred wage increase,* change to "August 1, 12½ cents. Increment increases to 24.9 cents (25.7 cents for Inland Steel Co.)."

American Can Co., under *Deferred wage increase,* add: "Increment increase to 20.9 cents (hourly); to 22.1 cents (salaried)."

Continental Can Co., under *Deferred wage increase,* change to: "Feb. 15: hourly employees, 12½ cents; salaried employees, $5 a week. Increment increase to 20.9 cents (hourly); to 24½ cents (salaried)."

The complete *Wage Calendar 1972* (BLS Bulletin 1724) is available for 50 cents from any of the regional offices listed on the inside front cover or from the Superintendent of Documents, Washington, D.C. 20402.

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in May 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
Allied Construction Employers' Association (Wisconsin):			
Carpenters' Agreement	Construction	Carpenters	4,000
Machinery Moving and Rigging and Reinforcing Bar Setting Agreement	do	Iron Workers	1,000
Sewer, Water and Tunnel Agreement, Area 1	do	Operating Engineers	1,000
Allied Construction Employers Association and Mason Contractors Association (Wisconsin).	do	Bricklayers	1,650
Associated Brick Mason Contractors of Greater New York, Inc. (New York, N.Y.)	do	Laborers	4,000
Associated General Contractors of America, Inc.:			
Central Ohio Chapter (Ohio)	do	Carpenters	1,850
Cincinnati Division, Building Chapter (Ohio and Kentucky)	do	do	3,500
Cincinnati Division and 2 other associations (Ohio and Kentucky)	do	Laborers	1,600
Memphis Chapter (Memphis, Tenn.)	do	Carpenters	2,000
Oklahoma Builders Chapter; 2 agreements (Oklahoma)	do	Carpenters	1,200
		Laborers	1,000
San Diego Chapter, Inc., and 2 other associations (San Diego, Calif.)	do	Operating Engineers	3,500
West Central Ohio Chapter (Ohio)	do	Carpenters	1,300
Associated Steel Erectors of Chicago (Illinois)	do	Iron Workers	2,650
Building Contractors and Mason Builders' Association of Greater New York (New York, N.Y.).	do	Laborers	6,650
Building Contractors Association of Indianapolis Inc. (Indiana)	do	Carpenters	2,600
Building Contractors Employers Association, Inc., and 1 other association (New York, N.Y.).	do	Laborers	4,000
Building Owners and Managers Association of San Francisco (California)	Real estate	Service Employees	1,500
Building Trades Employers' Association of Boston and 1 other association (Massachusetts)	Construction	Laborers	18,000
Builders Association of Chicago, Inc.; 2 agreements (Illinois)	do	Carpenters	17,000
		Plasterers	1,900
California Bakery Employers Association (San Francisco, Calif.)	Food products	Bakery Workers	1,300
Calumet Builders Association, Inc. and 3 other associations (Indiana and Michigan)	Construction	Carpenters	2,800
Cinch Manufacturing Co. (Chicago, Ill.)	Electrical products	Seafarers	1,050
Construction Industry Employers Association; 4 agreements (Western New York area)	Construction	Carpenters	2,100
		Laborers	2,950
		Operating Engineers	2,100
		Iron Workers	1,000
Erwin Mills, Inc. (Durham, N.C.)	Textiles	United Textile Workers	1,300
General and Sub-Contractors' Association (Pennsylvania)	Construction	Laborers	1,350
Georgia-Pacific Corp., Williams Furniture Division, Plywood Plant-Door Plant (Sumter, S.C.).	Lumber	Furniture Workers	1,650
Glass Management Association (California)	Stone, clay, and glass products	Painters	1,000
Great Atlantic and Pacific Tea Co., Inc. (Ohio)	Retail trade	Retail Clerks	1,150
Great Lakes Fabricators and Erectors Association and 1 other association (Michigan)	Construction	Iron Workers	2,500
Great Western Sugar Co. (Interstate)	Food products	Teamsters (Ind.)	1,000
Hamilton Technology, Inc. (Lancaster, Pa.)	Instruments	Watch Workers (Ind.)	1,100
Harley-Davidson Motor Co., Inc. (Milwaukee, Wis.)	Transportation equipment	Allied Industrial Workers	1,300
Heil Co. (Milwaukee, Wis.)	Machinery	Steelworkers	1,000
Hospital Service Plan of New Jersey, Medical-Surgical Plan of New Jersey (New Jersey).	Insurance	Office Employees	1,450
Hotel Industry Agreement (Hawaii)[2]	Hotels	Hotel and Restaurant Employees	3,000
Houston Lighting and Power Co. (Texas)	Utilities	Electrical Workers (IBEW)	2,000
Industrial Contractors & Builders Association of Indiana and 2 other associations (Indiana).	Construction	Iron Workers	1,600
Keystone Consolidated Industries, Inc., Keystone Steel and Wire Division (Bartonville, Ill.).	Primary metals	Independent Steel Workers' Alliance (Ind.).	2,500
Kimberly-Clark Corp., Neenah Mill (Neenah, Wis.)	Paper	Papermakers and Paperworkers; and Pulp, Sulphite Workers.	1,200
Labor-Management Agreement, Plumbing and Pipefitting Industry (Idaho and Oregon).[2]	Construction	Plumbers	4,000
Mechanical Contractors Chicago Association (Indiana and Illinois)	do	do	8,000
Metropolitan Detroit Plumbing and Mechanical Contractors Association, Inc. (Detroit, Mich.).	do	do	1,800

MAJOR AGREEMENTS EXPIRING NEXT MONTH—Continued

Company and location	Industry	Union [1]	Number of workers
Metropolitan Detroit Plumbing and Mechanical Contractors Association, Inc. and 1 other association (Detroit, Mich.).	do	do	2,400
Millwright, Conveyor and Machine Erector Contractors (Michigan)[2]	do	Carpenters	1,050
Minneapolis Association of Plumbing Contractors (Minneapolis, Minn.)	do	Plumbers	1,000
National Airlines, Inc., Clerical (Interstate)[3]	Air transportation	Air Line Pilots	3,600
National Electrical Contractors Association:			
Los Angeles Chapter (Los Angeles, Calif.)	Construction	Electrical Workers (IBEW)	5,600
Puget Sound Chapter (Seattle, Wash.)	do	do	1,650
Southeast Texas Chapter (Texas)	do	do	2,000
Southeastern Michigan Chapter (Detroit, Mich.)	do	do	3,500
Nestle Co., Inc. (Fulton, N.Y.)	Food products	P.C.K. Employees Union (Ind.)	1,100
New England Road Builders Association, Massachusetts Heavy and Highway Construction Agreement (Massachusetts).	Construction	Laborers	10,000
Niagara Mohawk Power Corp., Eastern, Central, and Western Divisions (New York)	Utilities	Electrical Workers (IBEW)	7,150
Northern California Ready Mixed Concrete & Materials Association (California)	Wholesale trade	Teamsters (Ind.)	1,200
Ohio Contractors Association and 1 other association (Ohio)	Construction	Carpenters	1,400
Owens-Corning Fiberglas Corp. (Newark, Ohio)	Stone, clay and glass products	Glass Bottle Blowers	1,700
Packaging Corp. of America (Rittman, Ohio)	Paper	Pulp, Sulphite Workers	1,100
Painting and Decorating Contractors of America, Inc., Detroit and Wayne Chapters (Michigan).	Construction	Painters	3,250
Pennsylvania Electric Co. (Pennsylvania)	Utilities	Electrical Workers (IBEW)	1,750
Plumbing and Air Conditioning Contractors of Arizona (Arizona)	Construction	Plumbers	2,000
Plumbing Contractors Association of Chicago and Cook County (Illinois)	do	do	5,600
Potomac Electric Power Co. (Washington, D.C.)	Utilities	Electric Utility Employees' Union of Washington, D.C. (Ind.).	3,000
Public Service Co. of Colorado (Colorado)	do	Electrical Workers (IBEW)	2,100
Quad-City Builders Association, Inc. (Illinois and Iowa)	Construction	Carpenters	1,500
Restaurant Association of the State of Washington and Seattle Hotel Association (Washington).	Restaurants	Hotel and Restaurant Employees	8,500
San Francisco Retailers' Council (California)	Retail Trade	Retail Clerks	4,000
Seattle Department Stores Association, Inc. (Seattle, Wash.)	do	do	5,000
Simpson Timber Co. (Mason and Grays Harbor, Wash.)	Lumber	Woodworkers	1,700
South Central Employers; Field Construction (Interstate)[2]	Construction	Boilermakers	5,500
Steel Fabricators Association of Southern California, Inc. (Los Angeles, Calif.)	Construction	Iron Workers	2,500
TRW, Inc., TRW Metals Division (Minerva, Ohio)	Primary metals	Metal Workers Alliance, Inc. (Ind.)	1,300
Twin City Hospitals (Minneapolis and St. Paul, Minn.)[2]	Hospitals	Nurses' Associations (Ind.)	3,000
Underground Contractors Association (Illinois)	Construction	Laborers	1,000
Union Carbide Corp., Chemicals and Plastics Operations Division (Bound Brook, N.J.)	Chemicals	Chemicals and Crafts Union, Inc. (Ind.).	1,400
United Aircraft Corp.			
Norden Division (Norwalk, Conn.)	Transportation equipment	Electrical Workers (IUE)	1,100
Pratt & Whitney Aircraft Division (North Haven, Conn.)	do	Auto Workers (Ind.)	4,600
Ventilating and Air Conditioning Contractors Association of Chicago and 2 other associations (Illinois).	Construction	Sheet Metal Workers	5,200
Washington State Restaurant Association (Washington)	Restaurants	Hotel and Restaurant Employees	2,850
Weyerhaeuser Co. (Longview, Wash.):			
Timberlands Division	Lumber	Woodworkers	1,050
Wood Products Group	do	do	1,900
Wholesale Bakers' Group, Machine Shop Agreement (California)	Food products	Bakery Workers	2,400
Will County Contractors Association and 2 other associations (Will County, Ill.)	Construction	Carpenters	1,050
Wisconsin Power and Light Co. (Wisconsin)	Utilities	Electrical Workers (IBEW)	1,350
Wyoming Contractors' Association, Inc. (Interstate)	Construction	Iron Workers	1,000

[1] Union affiliated with AFL–CIO except where noted as independent (Ind.).
[2] Industry area (group of companies signing same contract).
[3] Information is from newspaper.

Developments in Industrial Relations

Coast dock strike ends

The longest port strike in the Nation's history[1] ended on February 19, after members of the International Longshoremen's and Warehousemen's Union ratified an 18-month agreement with the Pacific Maritime Association. The agreement, covering 13,000 longshoremen at 24 West Coast ports, provided for a pay increase of 72 cents an hour retroactive to December 25 and 40 cents on July 1, 1972. The shippers also agreed to pay the ILWU a $1-a-long-ton royalty on all containers loaded or unloaded by other than ILWU members within a 50-mile radius of each port. Most of this work was being performed by members of the Teamsters Union.

Other provisions included a guaranteed 36-hour workweek for full-time longshoremen and 18 hours a week for part-time workers, averaged over a 26-week period, and financed by the royalty payments, with any excess funds to be used for improvements in benefits, at the union's discretion. In addition, maximum pensions were raised to $500 a month, from $235, dental and drug plans were established, and medical care and insurance provisions were improved.

On February 21, the White House announced that, "as a symbolic gesture," President Nixon had signed a measure that would have ended the dispute through arbitration, in the absence of a collectively bargained agreement. Secretary of Labor J. D. Hodgson had said new legislation would be needed if the longshoremen resumed the walkout. A renewal of the walkout was possible, since ILWU President Harry Bridges said his union had agreed with the East Coast International Longshoremen's Association[2] to strike simultaneously if the terms of either settlement were reduced by the Pay Board.

Telephone walkout ends

A 31-week Statewide strike by 38,000 telephone installers and repairmen ended February 17, when the Communications Workers announced ratification of a settlement with the New York Telephone Co. The agreement, subject to Pay Board approval, was similar to the July 1971 accord with the Bell System companies in other States (*Monthly Labor Review,* September 1971, p. 69), except for an initial wage increase of $30 a week instead of the $29 the workers would have received under the July agreement and for adoption of 15-percent premium pay for Saturday work that is part of the regular 40-hour week. The New York State locals gained a union shop provision, compared with the modified union shop gained in other areas.

Transit strike averted

A New Year's Day strike by 37,500 New York City transit employees was averted when the Transport Workers Union (TWU) and the Amalgamated Transit Union (ATU) reached tentative 27-month agreements with the Metropolitan Transit Authority and five private buslines.[3] However, on January 6, the ATU membership overwhelmingly rejected the settlement because there was no provision for cost-of-living escalator adjustments. In February, the ATU members were on the job, still attempting to reopen negotiations. TWU members, on the other hand, ratified their contract 15,176 to 11,703 on February 8. The TWU contract, subject to Pay Board approval, provided for 6-percent wage boosts on January 1, 1972, January 1, 1973, and January 1, 1974. The night shift differential was increased to 2 percent on January 1, 1972 (from 3 cents an hour), to 4 percent on January 1, 1973, and to 6 percent on July 1, 1973. The basic hourly rate for all bus operators had been $4.9325.

"Developments in Industrial Relations" is prepared by Leon Bornstein and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and is largely based on information from secondary sources.

The TWU settlement included improvements in the group health, dental, and drug plans, and the establishment of major medical benefits, an optical plan (at New York City Transit Authority only), and a $150 maternity benefit above Blue Cross benefits. These benefits were to be financed by authority contributions of $50 per employee on January 1, 1972, January 1, 1973, and January 1, 1974. Vacations were improved to 5 weeks after 15 years of service, instead of 25. There were changes in other benefits and in work rules.

At the Manhattan and Bronx Surface Transit Operating Authority, the TWU also gained pension improvements that brought benefit rates for years of credited service after 1970 up to the existing rate levels at the Transit Authority. Past service benefits were also improved.

For the 1,150 drivers at the five private lines, the package was generally similar except in the pension plan, where each company begins paying an additional $3.80 a week on January 1, 1972, and January 1, 1973, and employees pay an additional $3.80 a week on January 1, 1972, to finance improvements.

Railroads, Firemen settle

The Nation's railroads reached a 30-month agreement with the Firemen and Oilers in mid-February, leaving only the Sheet Metal Workers to settle in the current round of bargaining in the industry. The contract followed the general industry pattern and closely resembled those negotiated for four shopcraft unions in October 1971 (*Monthly Labor Review,* December 1971, p. 79). If the Pay Board approves the settlement, 13,000 workers will receive 10 cents an hour retroactive to January 1, 1971, stationary engineers 15 cents and other employees 8 cents retroactive to April 1, 1971, and all employees 5 percent on October 1, 1971, April 1, 1972, and October 1, 1972, and an additional 25 cents an hour on April 1, 1973. Employees at or below $3.30 an hour will receive an additional 2 cents and those at $3.31 will receive 1 cent—this would affect about 10,000 workers. Other terms included a ninth paid holiday and a fifth week of paid vacation after 25 years of service, effective in 1973.

Aerospace pay ruling challenged

In the first legal challenge to a Pay Board ruling, the Auto Workers asked the U.S. District Court for the District of Columbia to overrule the Board's January ruling that the first-year gains in several aerospace settlements were excessive and that the parties would have to agree to defer part of the initial wage increase to the second year to gain approval.

In its suit, the union asserted the Board's action was illegal because 34 of the 51-cent first-year wage resulted from the cost-of-living escalator clause of the prior agreement and therefore should not have been treated as part of the 51 cents; that two of the firms had raised prices in anticipation of the labor cost increase; that the Board had acted capriciously in setting a 6-month limit on the interval between tandem settlements (preventing the union from gaining approval based on a tandem relationship with the 1970 auto settlements); that the Board had discriminated against the aerospace workers because it had earlier approved larger settlements in other industries; and that the union had been denied due process because formal, open hearings were not held. A similar suit also was filed by the Machinists Union.

More Pay Board developments

The Board widened its review of deferred increases, stipulating that raises of more than 7 percent must be sent to it 60 days in advance for approval. The burden of proof would fall on the company or union to show that the deferred increase was not "unreasonably inconsistent" with the Board's standards. The ruling brought Tier Two units (1,000 to 4,999 workers) into the prenotification category. Previously, increases for these units had to be reported, but not in advance. The Board also ruled that merit increases up to 7 percent would be allowed, if they were part of an established procedure for such individual increases. (Newly instituted merit plans or informal policies must still be included in the 5.5-percent guideline.)

In an agreement with the Construction Industry Stabilization Committee (CISC), the Board recognized that "special circumstances" in the construction industry could warrant wage adjustments well beyond the Board's guidelines of 5.5 percent. In defining the Committee's jurisdiction, the agreement said:

> The CISC will continue to review all scheduled (deferred) wage increases in the unionized construction industry regardless of company size and will review all economic adjustments, including work rule changes. It will also consider intercraft and geographical relationships in reviewing cases submitted by the 17 craft boards.

The Committee also was authorized to review all new settlements, again regardless of size, and to consider fringe benefits as part of the base when computing wage increases.

Wage control exemptions set

The Cost of Living Council exempted from wage controls all workers earning $1.90 an hour or less. The Council's ruling, exempting about 15 percent of the work force, set off a storm of labor criticism. Opponents generally contended that the cutoff figure should be based on the 1970 Bureau of Labor Statistics lower budget for an urban family of four—$6,960 a year—or about $3.35 an hour. The Council asserted the $1.90 cutoff was in accord with the intent of Congress, when the latter amended the Economic Stabilization Act of 1970 to exempt the working poor from controls, and that the BLS budget was based on the earnings of workers age 35 to 54, while it (the Council) included both older and younger workers, lowering the average. The Council also cited other factors in its decision, including tax reduction, an average family of 3.6 (versus 4 in the BLS budget), and the fact that the Council figured on 1.7 wage earners in a family (versus 1).

On February 3, the Electrical Workers (IUE) filed suit in U.S. District Court for the District of Columbia, claiming the $1.90 exemption was unlawful, and asking that a $3.35-an-hour exemption be set, claiming this was the intent of Congress.

Hourly Earnings Index

The Hourly Earnings Index was virtually unchanged in February at 134.2. The Index measures earnings of production or nonsupervisory workers in the private nonfarm economy. It is adjusted to exclude (1) the effects of interindustry employment shifts, (2) overtime premium pay in manufacturing, and (3) seasonal variations. Data for earlier months also are shown in the following tabulation (1967 = 100).

Month	*1971*	*1972*
January	126.0	134.3[1]
February	126.7	134.2[1]
March	127.3	
April	128.1	
May	129.1	
June	129.3	
July	130.0	
August	130.9	
September	131.3	
October	131.4	
November	131.6	
December	133.5	

Data presented in the February and March issues of the *Review* were not seasonally adjusted.

[1] Preliminary.

AFL–CIO leaders meet

The AFL–CIO Executive Council elected the presidents of three large unions to fill retirement-created vacancies on the 35-member panel. Elected at the council's midwinter session at Bal Harbour, Fla., were James T. Housewright, George Hardy, and Al H. Chesser, presidents of the Retail Clerks, the Service Employees, and United Transportation unions, respectively. The retiring labor leaders were James A. Suffridge of the Retail Clerks, David Sullivan of the Service Employees, and Charles Luna of the United Transportation Union.

In other actions, the council attacked economic policies of the Administration. It charged that "flagrant favoritism" puts the "burden" of wage-price controls on workers and the poor, with the result of "destroying public support" for the Economic Stabilization Program. The Council offered a seven-point program of "immediate, selective government measures" to create jobs, increase industry's productivity to reduce pressures on costs and prices, and meet the Nation's need for expanded public facilities and services.

At a news conference after the 6-day session, AFL–CIO President George Meany announced the Federation would issue a national union charter to the United Farm Workers Organizing Committee. Headed by Cesar Chavez, the 30,000-member Organizing Committee was sponsored by the AFL–CIO in 1966 and has concentrated mainly on organizing farmworkers in California, the Southwest, and, recently, in Florida.

In a related development, AFL–CIO maritime unions reported that they had agreed to coordinate their efforts to ensure job security and employment opportunity for their members and to work in close cooperation to increase cargo loads for U.S. merchant flag ships.

Cleveland orders pay cut

In an effort to balance Cleveland's 1972 budget, Mayor Ralph J. Perk ordered all city employees to take an across-the-board 10-percent cut in both pay

and hours worked. The action would reportedly save the city between $8 million and $9 million in 1972. The Mayor said the only alternative would have been to lay off 1,400 workers—and a resultant curtailment of city services. Earlier in his 3-month-old administration, Mr. Perk had ordered his cabinet members to take a 10-percent pay cut because of budgetary difficulties. Although the order was subsequently canceled, Mayor Perk said he would continue the cut in his $35,000 salary. Under State law, all cities must end the year with balanced budgets. Claiming a violation of the City Charter, the Fraternal Order of Police filed a suit seeking to void the order.

Faced with the possibility of running out of money in March, the Detroit Board of Education voted to withhold all wage increases and retroactive pay due the system's 18,000 employees. The Board reportedly hoped to keep the money until the end of the fiscal year on June 30, if it is unable to borrow $40 million to meet the deficit. It acknowledged that the wage increases would have to be paid eventually.

National Airlines back-pay accord

Members of the Machinists union ratified a $6-million back-pay accord with National Airlines, apparently ending a dispute that began in January 1969, when National changed work rules during contract negotiations and fired 947 ground service employees who struck in protest. Machinists Vice President William W. Winpisinger said checks for the 53-week lockout would range from $500 to nearly $10,000. A National spokesman said the final payout might be less than $6 million, because two issues remained to be settled in court: whether vacation pay is included and whether workers who rejected reinstatement should be included.

The Supreme Court in January 1971 agreed with the U.S. Fifth Circuit Court of Appeals that the action by National had violated the Railway Labor Act (which also covers labor relations in the airline industry). The settlement was subject to final approval by U.S. District Court Judge C. Clyde Atkins in Miami, under whose aegis it was worked out. According to the union, the largest prior back pay award was the $1.5 million paid to 1,371 Auto Workers by the Kohler Co. in 1960.

In April 1970, while the back pay issue was before the courts, National and the Machinists agreed to a 3-year contract (retroactive to January 1969) that provided for wage and benefit improvements and for rehiring the employees at the seniority level they had when they were locked out (*Monthly Labor Review,* June 1970, p. 79).

Stock purchase and bonus plans

General Motors Corp. announced the crediting of nearly $124 million in cash and securities to salaried employees participating in the company's savings stock purchase program. The $124 million consisted of the $46.4 million in employee savings in 1966, $23.2 million in company contributions in 1966, and $54 million in dividends and interests earned from January 1, 1966, through December 31, 1971. The company said the amount credited represented a return equivalent to $1.93 for every dollar saved by participating employees during 1966. Of the 81,600 employees covered by the "class of 1966," 62,100 elected to receive their accrued assets now and the remainder elected to leave theirs in the trust, where they will continue to earn dividends and interest. The distribution was the 12th since the program was started in 1955. Salaried employees with at least 1 year of continuous service are eligible to invest up to 10 percent of their salary in the plan; General Motors matches 50 percent of the amount invested.

Office and technical employees at nine major steel companies will receive annual yearend bonuses under a new Service Bonus Plan announced by the Steelworkers. The bonuses are expected to vary among the companies. The union indicated the annual payment at United States Steel Corp. would range from about $103 to $533 and average $263. The amount an employee receives will depend on the number of hours he has worked during a 12-month period (August 1 through July 31), his length of service, and the number of employees in each seniority grouping. The new plan resulted from a provision of the 1971 settlement (*Monthly Labor Review,* October 1971, pp. 73–75) for further negotiations on how to use a new 10-cent-an-hour company obligation for each hour worked by office and technical employees since August 1, 1971.

The union also announced agreement on a similar plan for iron ore miners on hourly nonincentive jobs, financed by a 10-cent obligation for hours worked since August 1. Under this Attendance Bonus Plan, employees will receive payments based on attendance during specified periods.

Stagehands' pay in spotlight

In Washington, D.C., stagehands at the Kennedy

Center for the Performing Arts have unanimously ratified a contract that will reduce their earnings, which reportedly amounted to $1,500 a week for some employees. The 125 stagehands were represented by the International Association of Theatrical and Stage Employees, which negotiated the prior agreement shortly before the center opened in September 1971. These earnings resulted from a number of factors, including the highest hourly pay rates in the country (from $7.70 for the head electrician, carpenter, and property manager in each theater, down to a minimum of $6.60 for their assistants); a guaranteed minimum of 4 hours of pay for each "call" at any of the three halls, regardless of the number of hours worked (payable at time and one-half after the second call in a day); requirements calling for three department heads during each use of each of the three halls and a scenery handler for two of the halls; and a shortage of stagehands, resulting in much of the work being performed at time-and-one-half and double-time rates.

The new agreement covered only the concert hall; negotiations were continuing for the center's other halls. The concert hall will have a permanent 6-man crew at $398 for 40-hour weeks, with the required number of stagehands being reduced from three to two. Roger L. Stevens, chairman of the center's board of directors, said renegotiation of the earlier agreement had begun in November and the reported earnings were exaggerated.

Prisoners form union

The first American union[4] made up exclusively of prisoners was formed by inmates of Green Haven Prison at Stormville, N.Y. Called the Prisoners Labor Union at Green Haven, it promptly petitioned State Correction Commissioner Russell G. Oswald for recognition as exclusive bargaining agent for the prisoners and sent a similar request to the prison superintendent, asking for a meeting to negotiate wages, hours, and working conditions. In its February 8 announcement, the union also said the executive committee of District 65, Distributive Workers of America, had agreed to accept it as an affiliate, subject to approval by that union's 30,000 members. According to William E. Hellerstein, lawyer in charge of the legal aid project, 1,800 inmates at Green Haven had signed requests for membership in the union. Earnings at the facility average 35 cents a day for work that includes the production of hospital gowns and bathrobes, sheets, pillow cases, and flags; occupations include maintenance men, porters, tailors, and barbers.

An attorney representing the prisoners, Eugene Eisner, stated that since the inmates perform work for the State they are entitled to collective bargaining rights under New York's Taylor Law. On February 10, Commissioner Oswald rejected the union's demand for recognition, explaining that lawyers for the Department of Correction had advised him that State laws dealing with collective bargaining with public and other employees were not applicable to "persons serving penal sentences in correctional facilities." Mr. Eisner disputed this and said he would "pursue the matter through the Public Employment Relations Board and the courts if necessary." □

FOOTNOTES

[1] The walkout began July 1, 1971, ended October 6 under an 80-day Taft-Hartley injunction, and resumed January 17.

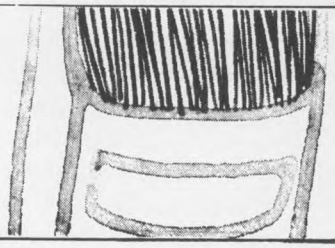
[2] See *Monthly Labor Review,* March 1972, p. 64 for the ILA settlement terms.

[3] The Metropolitan Transit Authority is comprised of the New York City Transit Authority, employing 30,500 workers represented by the TWU and 1,900 represented by the ATU, and the Manhattan and Bronx Surface Transit Operating Authority, employing 5,500 TWU members.

The 5 private lines are Queens Transit Co., Jamaica Buses, Inc., Triboro Coach Corp., Steinway Transit Corp., and the Avenue B and East Broadway Transit Co., which employ 1,150 TWU members.

[4] There was a similar union in Los Angeles, but it was not limited to prisoners.

Book Reviews and Notes



Evaluating the Keynesian revolution

The New Economics and the Old Economists. By J. Ronnie Davis. Ames, Iowa State University Press, 1971. 170 pp. $5.95.

This short book presents a revisionist interpretation of the "Keynesian Revolution" in the United States in the 1930's. The study evolved out of the author's unpublished prize dissertation, "Pre-Keynesian Economic Policy Proposals in the United States During the Great Depression," submitted to the University of Virginia in 1967. A part of the latter was published in the *American Economic Review,* June 1968, pp. 476–482, under the title, "Chicago Economists, Deficit Budgets, and the Early 1930's."

It is written in a style understandable to the general reader and will interest economists and economic historians very much. I say this because it seeks to prove that so far as economic policy was concerned there was no need for the Keynesian Revolution in this country in those years. In the author's words, "this study tries to demonstrate that a large majority of leading U.S. economists affirmed, as did Keynes, the usefulness of fiscal policy and the uselessness of money wage reductions in fighting business depression. Their policy prescriptions were far from being as conservative as people have thought."

In his opening chapter, Davis deflates the Keynesian Revolution to the status of a "mutiny" against Cambridge and Pigovian economics and asserts that by 1930 most U.S. economists probably would have agreed in rejecting that tradition as being inherently incapable of dealing adequately with cyclical fluctuations in production and employment. He disowns any attempt to discredit Keynes and his contribution to economic theory. "The objection raised is directed solely against Keynes' claim to innovative *policy* proposals . . . Keynes cannot claim to have converted leading members of the economics profession to his views on policy, for the reason that the profession already held his views (in some cases, before he did)."

In succeeding chapters Davis reviews the policy proposals made by American economists prior to 1936 and concludes that there was "a veritable consensus in behalf of public spending and in opposition to inaction." Much of the retrenchment advice, he states, was imported. A group of American "classical" economists, principally at the University of Chicago, was the most articulate advocate of deficit budgets and of countercyclical fiscal policy. It included such distinguished figures as Jacob Viner, Paul H. Douglas, Henry C. Simons, and others. In Milton Friedman's words, "the ideas which were in

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J. Ronnie Davis. *The New Economics and the Old Economists.* Reviewed by Charles H. Hession.
G. L. Bach. *Making Monetary and Fiscal Policy.* Reviewed by Arthur Kemp.
Juanita M. Kreps. *Lifetime Allocation of Work and Income: Essays in the Economics of Aging.* Reviewed by Albert S. Epstein.
Donald Garnel. *The Rise of Teamster Power in the West.* Reviewed by Paul S. Taylor.
Thomas A. Kochan. *City Employee Bargaining With a Divided Management.* Reviewed by David T. Stanley.
George Dalton. *Economic Anthropology and Development: Essays on Tribal and Peasant Economies.* Reviewed by William Woodruff.
John J. Fendrock. *Managing in Times of Radical Change.* Reviewed by Craig C. Lundberg.
Roy Richardson. *Fair Pay and Work: An Empirical Study of Fair Pay Perception and Time Span of Discretion.* Reviewed by Michael E. Bradley.
Gerald Kurland. *Seth Low: The Reformer in an Urban and Industrial Age.* Reviewed by Rowland Berthoff.
Harold Koontz. *Appraising Managers as Managers.* Reviewed by Ben Burdetsky.

the air at the University of Chicago and in the early- and mid-thirties made Chicagoans much less susceptible to the Keynesian virus than students in London and Cambridge." J.M. Clark and others anticipated Keynes in part, but Davis admits that the former did not develop a comprehensive theory analogous to *The General Theory*. He contends, more questionably, that the other leading pre-Keynesians had a complete macroeconomics which enabled them to argue effectively against wage reductions and for expansionary monetary and fiscal policies.

This book may stir up considerable interest in the intellectual history of the topic with which it deals. While it aids us in bringing back into historical focus the economic policy discussions of the early thirties which have been overshadowed by Keynes's work, it has two serious weaknesses, in the reviewer's opinion. By confining itself to the American policy discussion of that period, it fails to put Keynes's work into its proper trans-Atlantic context, and by overemphasizing the Keynesian "vision" of economic maturity, it does not give the brilliant Britisher his intellectual due. As Professor Harry G. Johnson has recently said, ". . . *The General Theory* was successful, precisely because by providing an alternative theory to the prevailing orthodoxy, it rationalized a sensible policy that had hitherto been resisted on purely dogmatic grounds." The ideological element that has prevented some from objectively evaluating the Keynesian revolution is not monopolized by the Keynesians.

—CHARLES H. HESSION
Professor of Economics
Brooklyn College

Lucidity at high levels

Making Monetary and Fiscal Policy. By G. L. Bach. Washington, Brookings Institution, 1971. 281 pp. $7.50.

Professor Bach's title is an understatement; what he has produced is first, an examination of the meaning and nature of both monetary and fiscal policy; second, a history of that policymaking since the establishment of the Federal Reserve System in 1913, with primary emphasis on the Eisenhower and Kennedy-Johnson years; and, third, an evaluation of past policymaking, together with a series of detailed recommendations for the future. Such a project is no mean task. Professor Bach not only succeeds admirably but does so with such lucidity that his efforts should prove useful not only to professional economists but to the educated nonprofessional as well. Indeed, he makes the somewhat esoteric intricacies of high level policymaking more or less understandable and even enjoyable.

Of course, the more professional training one has, the more one can appreciate what he has achieved. Without hiding his own position—which is essentially sympathetic to the policymaking establishment—he has expressed both the mainstream views of the "New Economics" practitioners and those of the challengers among the neoclassical monetarists. To the student, the bibliography and footnotes alone will be well worth the price of the book. The professional, whether politican or economist, who was deeply concerned over policy problems during the past two decades will find in the historical section a first-rate piece of politico-economic history. The more casual reader, if he is seeking a shortcut, may elect to concentrate on Parts One and Three in which Professor Bach expresses the principles of monetary and fiscal policy as he sees them and gives his considered advice.

The quarrels between the fiscal policy adherents and the monetarists will not be laid to rest by this book. But Professor Bach has tried. His views are basically similar to those who believe the free enterprise system is inherently unstable, requiring consistent, constant, and careful guidance by wise professionals at or near the top. But he expresses his own opinions with careful consideration for the views of others. Neither the out-and-out populist inflationist nor the fullfledged believers in rules instead of authorities and a locked-in money stock will be convinced. But they will respect his efforts.

One does not have to agree with all, or even most, of Professor Bach's recommendations to appreciate the vigor of his reasoning in such matters as interest rate ceilings on commercial bank and savings and loan deposits, and those on government bonds. "Government controls," he writes, "over the direction of private savings flows have a dubious record in promoting the public welfare. Holding down interest rates in particular markets does little to check inflation; it merely redirects the flow of funds. Moreover, the allocative effects of rate ceilings are apt to be limited, temporary, inequitable and inefficient. . . ." Would that I had written that! From the evidence, it should be possible to generalize such statements to

all price and wage fixing (although Professor Bach takes a much less vigorous position on direct price-wage controls and incomes policies).

It should be remembered that this was written before the current freezes and phases—probably most of it in 1969–70 or before. The weakest section, in this reviewer's opinion, is that relating to international monetary policy. To say that we have made "significant progress in recent years" on problems of international liquidity, international adjustment mechanisms, and international confidence seems like a bit of wishful thinking in the winter of 1971–72. But such criticism should not deny Professor Bach another chance in the clear light of hindsight. So write on, Professor Bach, write on!

—ARTHUR KEMP
Charles M. Stone Professor of Money and Credit
Claremont Men's College

The best is yet to be

Lifetime Allocation of Work and Income: Essays in the Economics of Aging. By Juanita M. Kreps. Durham, N.C., Duke University Press, 1971. 168 pp. $6.75.

The plight of the aging has penetrated to the newspaper columns and columnists. It is therefore good to see the publication of this informative and challenging collection of essays by Professor Juanita M. Kreps. Her book grows out of not only a theoretical investigation of the problems, but also her practical participation in efforts to improve the condition of the aging.

This slender tome has many mansions—14 chapters, grouped into four sections: I. Work and Income Through the Life Span, II. Working Time in Selected Countries, III. The Temporal Allocation of Income, and IV. Work and Income Allocation in the United States: Policy Considerations.

It is tempting to discuss all these topics, but I have chosen to concentrate on the economics of the aging, the red thread that runs through every essay.

The author is concerned that although the social and psychological aspects of aging have been studied, the economic side has been neglected, particularly the timing of work and adequacy of income at different ages. Income distribution has been studied for a long time. But the author has added a new dimension—the temporal aspect. She concentrates her attention on the "division of the national product between persons who are currently at work and persons who are not." This latter group includes not only the sick and disabled, but also the able—young and old—since work has come to be concentrated in the middle years.

Because we have lengthened the time a youth spends in school and encouraged early retirement, nonworking time has grown by about 9 years for a male from birth.

Professor Kreps is very critical of automatic retirement at age 65 regardless of "individual differences in capacity or preference." In this respect she is not alone. The nations of Western Europe encourage older persons to continue working after reaching the pensionable age of 65. West Germany increases the amount of benefit if retirement is postponed. In Sweden, where the pensionable age is 67, there is a 0.6-percent increase in the pension for each month of postponement, and the same reduction for early retirement. This is in contrast to the practice in the United States, where compulsory retirement is widespread, early retirement is encouraged by various schemes, and even where workers continue their employment after age 65, no service credit is granted for those years.

In a perceptive "Introductory Comment," Professor Spengler points out that a young person spends "at least 12 years and very often 16 or 17 years in the educational system." However, "no more than 12 years are actually required to enable a student to complete training of the sort he acquires in these 16 17 years, and no more than nine are needed to complete that acquired in the first 12 years." The result is a loss of earnings for these few years for the student and extra cost to the taxpayer for an education which "fits him badly for his later worklife."

Both Professors Kreps and Spengler are disturbed by the institutional restrictions on a man's work which force him to retire while he still has the physical and mental capacity to meet the requirements of his employment. Professor Kreps suggests that "The explanation for current retirement practice lies not in the physiology of aging but in the productivity of labor." She writes. "But the very process of economic growth that insures gradually rising real income for persons at work has the effect of widening the income gap between the workers, and those income claims are based on previous earnings."

When a person retires, there is first a dramatic drop in income. Then, for the next 10, 15 or 20

years, his income is stationary, even though prices are rising, and the incomes of his children and grandchildren, and everybody around him, reach constantly higher levels.

In 1967, the median income for families headed by persons aged 65 and over was $3,928—less than half that of the families headed by persons aged 14–64. About 30 percent of the aged are classified as poor; another 10 percent escape the definition but not the poverty because they share homes with relatives.

In advanced economies, government has assumed some of the responsibilities that the broad family groups used to exercise. Society is now faced with the task of maintaining the incomes of retired persons over and above the social security level at levels parallel to those persons gainfully employed. It is assumed that neither savings or private pension plans are sufficient to bridge the gap. (The reviewer was surprised to find no mention of the Variable Annuity, particularly since Dr. Kreps is a trustee of Teachers Insurance and Annuity Association, which has been successful in achieving for college personnel pension benefits which tend to keep abreast not only of the "cost of living" but of the standard of living.) To achieve adequate retirement income, the author argues, requires a system of income transfer.

This approach is not to be interpreted as charity. It is merely a correction for a social arrangement which crowds a worker's earning capacity into the middle years without providing for adequate retirement income. The rationale is found in these sentences.

> When the worker retires, the generation at work is paying the tax, true, and the retiree receives benefits. But while the timing may make it appear that he is being supported by society—strictly speaking, all persons not at work or owning capital are being supported by society, since at the moment they are not contributing to output—this interpretation is not valid when considered within the context of man's lifetime.

The publisher's blurb properly points out their *Lifetime Allocation of Work and Income* is a valuable contribution for sociologists, psychologists, and students of social gerentology, as well as economists. However, it is not a "well written, lucid book." It suffers the afflictions of many collections of essays —repetition and failure to pull the "several strands together" well, as Professor Kreps promises in her preface. The volume does not make easy reading and is not intended for the general public. But its contents are bound to concern not only the social scientists but the politicians as well as every citizen of this nation.

—ALBERT S. EPSTEIN
Director of Research
International Association of
Machinists & Aerospace Workers

If you've got it, it came by truck

The Rise of Teamster Power in the West. By Donald Garnel. Berkeley, University of California Press, 1972. 363 pp., bibliography. $12.50.

This book traces the rise of unionism and of area-wide, multilevel, multiemployer collective bargaining in a varied and rapidly changing industry. From the beginning, teamsters have been astride "an economic bottleneck through which virtually all goods must pass at some time before reaching the final consumer." Within a lifetime the industry has moved technologically from horse-drawn carts to huge motorized trucks drawing trailers across the Nation in competition with railroads.

Employer organizations simultaneously have embraced industry-owned trucks (for example, brewery trucks), and "for-hire" trucks, either owner-operated or in fleets manned by employees. As markets served by the industry and unions expanded, so also did employers' labor relations associations. Unionism responded to industrial variety with variety within its own organization—separating bakery drivers from milk wagon drivers, for example. With expansion of trucking from city confines to the surrounding region, then cross-country, union organizations broadened from citywide joint councils to regional conferences of teamsters.

This study focuses upon the West during the crucial years 1935–42, but its perspective is wide and long. At the turn of the century, John R. Commons "once noted that not before 1903 could the Chicago Teamsters 'be studied as an economic rather than a criminal phenomenon.' " Collective bargaining advanced steadily, at first through "organization by siege and negotiation by ultimatum," then on a more "solid foundation." On the employers' side, removal of wages from the area of competition between themselves had advantages.

The 45-year era of Daniel J. Tobin's presidency of the International Brotherhood of Teamsters

(1907–42) was marked by "continuous and successful effort to keep the international level . . . free of racketeering and corruption," but as a bargaining agency the IBT was "a national union in name only."

After World War I, Dave Beck rose to prominence among teamster officials in the West. He presented to the business world a facade of conservatism, extolling the "wonders of the free enterprise system, profits, and private property." He said: "You cannot take from business what it does not have. You cannot take something out of a bucket unless it is first in the bucket." He sought to show employers how they could pay higher wages and improve profits at the same time. When he found "too many firms in the market" to make his formula workable, "his solution was to restrict further entry and to force some or at least the most marginal firms out of business." To Beck, "intraunion solidarity was critical to success while 'labor solidarity' was superfluous." When Tobin left the IBT, Beck succeeded him.

This book is a mature product of 10 years beyond a doctoral dissertation, documented from fresh original sources, and very readable.

—PAUL S. TAYLOR

Professor of Economics Emeritus
University of California, Berkeley

Getting it together

City Employee Bargaining With a Divided Management. By Thomas A. Kochan. Madison, University of Wisconsin, Industrial Relations Research Institute, 1971. 75 pp. $3.

The problem of multiple management participation in public sector collective bargaining is generally more deplored than documented. We are therefore indebted to Thomas Kochan and to the Industrial Relations Research Institute at Madison for a valuable piece of research.

This little book tells the story of two Wisconsin cities, Madison and Janesville, which experienced impasses with locals of the International Association of Firefighters in their 1969–70 bargaining. Both cases involved the widespread and difficult question of pay parity between policemen and firemen, and the book will be illuminating to readers interested in that problem. The main focus, however, is on the theoretical and practical difficulties of the many and often disagreeing parts of the city's management before and during the time they are expected to present a united front at the bargaining table. In each city there was a chief executive (one a mayor, the other a manager); a city council, some of whose members had no hesitation in making public statements on a free-wheeling basis; a civil service or personnel body; and a police and fire commission. Both impasses were painful and emotional, though not critical or expensive, as such things go. In both cases they were delayed and aggravated by management's inability to come to terms with itself before doing so with the union.

Before telling these stories, the author devotes two brief chapters to setting the theoretical scene, first in the private sector, then in the public sector. Then as he goes through his narrative of the cases he relates the events in these cities to the theoretical points he has cited: role conflicts within the executive, the distribution of power, and the role of interest groups, for example.

Madison had a 3-day strike of the firefighters, which was ended by a marathon 52-hour bargaining session between the city council and the union. Janesville was threatened by a sitdown strike, but the difficulty was mediated by a staff member of the Wisconsin Employment Relations Commission. The actual outcomes, however, are less significant than the depiction of the interplay between the different parts of management and the way the management issues are interwoven into the labor relations problem: position classification, the pay-setting method, the constituencies of the city councilmen involved, the part played by the police and fire commission, and the way chief executives involved themselves. Each situation was less a problem in labor relations procedures, of course, than a demonstration of local government politics. These are small cities and manageable cases. One cannot generalize from these instances, not only because of the smallness of the sample, but also because one can argue that in large scale collective bargaining situations the management side would have its tactics better routinized and disciplined.

The author does not give a final answer, but poses the problem for others to work on: "how to devise a bargaining system for municipal employees which insures them the right of 'first class citizenship' and still provides a voice for the pluralistic interests of the community." He presents the reader with six propositions that he says need empirical research as a basis for wide-scale solution of the problem. This

is a valuable edition to the growing literature of case studies in public employment labor relations. The author selected a modest objective, worked toward it carefully, and has produced a truly responsible and illuminating monograph.

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Uneasy bedfellows

Economic Anthropology and Development: Essays on Tribal and Peasant Economies. By George Dalton. New York, Basic Books, Inc., 1971. 386 pp., bibliography. $12.50.

Written by an economic anthropologist, this book consists of 14 wide-ranging essays addressed to fellow-specialists in the social sciences. Its purpose is twofold: to explore the nature of the still little-known discipline of economic anthropology, and to examine the conditions surrounding the economic development and cultural modernization of tribal and village communities of the so-called Third World. The first section of the book considers problems involved in devising an adequate theoretical approach to economics and economic anthropology; the second deals with cultural and economic traits of certain tribal and peasant economies; the last third is devoted to papers, specific and general, dealing with various aspects of economic development and social change.

In exploring the scope and methodologies of economic anthropology, the book fills a gap in existing literature. In attempting to provide an introduction to the entire subject it may be considered successful. The author's essential contribution here is form. The significance of the book is probably that it can help to change the mental setting of those who study world economic development. The emphasis is placed not on what the advanced West might teach the less developed communities of the world (through the use of formal economics concerned with the problems of *national* economies) but rather on what—if the West is to help at all—it ought to learn about the tribal and peasant economies of other continents. Its lesson is that viable systems of economics, like viable systems of law, must be derived from (not introduced and imposed on) other people's economic and cultural life. The astonishing thing is that we should have ever lost sight of such a self-evident truth.

Whether books such as this are going to make any difference in the formulation of economic policy for the traditional economies of the Third World is another matter. Economics and anthropology are not likely to prove easy bedfellows—the former has become the most abstract and mathematical of all the social sciences, the latter remains empirical—but at least under Mr. Dalton's guidance they have been introduced to each other's problems. Those social scientists who believe that a complete reassessment of development economics is long overdue will welcome these stimulating and rewarding essays.

—WILLIAM WOODRUFF

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Change without despair

Managing in Times of Radical Change. By John J. Fendrock. New York, American Management Association, 1971. 182 pp. $9.75.

The provocative yet general and declarative title foretells much of this book. It is an uncomfortable book, partly no doubt by the author's intent, partly not. The thesis is that managers "should" be much more sensitive to and responsible about social problems. While this reviewer has no quarrel whatsoever with the value-laden theme, much about the content and construction of the argument appears to be either inaccurate or nonhelpful. While we are in a time of unprecedented change, it is not clear that these changes are necessarily "radical." While the younger generation, or at least part of it, is accusative, it is not clear that many older persons and many managers are not also distressed at business practices that contribute to our major social problems. While managers obviously are partly responsible for many of these problems, it is not clear that they are the primary ones who should lead us to their solutions. The exaggerations which abound in this book do make the reader uncomfortable—he does hit us (not just managers) in our social conscience.

The book rather colorfully lists many social ills, for example, false advertising, discrimination in recruitment and promotion, and industrial pollution. It also lists many managerial ills such as overly impersonal management, rampant job insecurity, male

chauvinism, and a too narrow focus on profits. Fendrock's "solutions," such as improving trust with youth, internal communications, and employment levels, and reducing industrial pollution, crime, excessive intrafirm competition, and so forth, all appear to be on target. How these actions will happen, however, is simply not indicated. To point out that positive curative and preventive practices will occur when managers cease separating their roles as citizens and businessmen is a fine insight, but it is insufficient. And to proclaim that current business skills and values are adequate for more socially responsible behavior seems to this reviewer as badly confusing means and ends. Recent nonresponsible practices reflect present skills and values.

If most managers are truly insensitive or uninformed about their contribution to social problems, then this book may serve to stimulate them. If, however, most managers are aware of their accountability, but are constrained by their managerial ethos, then this book will simply become an irritant. Mr. Fendrock concludes his book optimistically. He believes managers will accept the challenges of tomorrow because they are conscientious workers, they are best equipped to act, and they really have no choice (all questionable). It's as though, now that they are more aware by reading this book, managers will solve our/their problems—a statement of exhortive faith perhaps, but not a reasoned conclusion.

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Felt fair pay

Fair Pay and Work: An Empirical Study of Fair Pay Perception and Time Span of Discretion. By Roy Richardson. Carbondale, Southern Illinois University Press, 1971. 124 pp. $8.50.

This brief study is concerned with the basic question of "What is fair pay for an individual worker in an established role or job in a particular employing organization?" The author examines the question of fairness within the context of a stylized model of an employment contract, and considers the employee's perception of the fairness of his pay for the work he performs and the manager's perception of the fairness of pay relative to the work he receives from the employee.

The main body of the work seeks to identify the psychoeconomic variables that determine the individual's perception of fairness by statistical analysis of data collected in questionnaires and interviews with a stratified random sample of 180 middle managers and their supervisors at the Honeywell plant in Minneapolis. Personnel who had recently moved from one salary classification to another and female personnel were excluded from the sample, and no individual was included as both a subordinate and a manager.

The author's general hypothesis postulates "a direct, linear relationship" between the subordinate "felt-fair pay" (FFP) and the manager's "time-span of discretion" (TSD), which he defines as "The longest period of time in completing an assigned task that a subordinate is expected by his manager to exercise his discretion with regard to the pace and quality of his work without managerial review." Since the time-span of discretion and felt fair pay are independently measured and perceived by managers and subordinates, Dr. Richardson analyzes a number of other variables which might explain the relationship between them. His results confirm the general hypothesis, but do not provide an explanation of this relationship in terms of some other variable which bridges the independence of time-span of discretion and felt fair pay.

Dr. Richardson's statistical analysis is both painstaking and exhaustive, and his research tools and procedures are spelled out clearly and fully in the text and appendices. There is a point, however, which seems to pose some difficulty. "Fair pay," or "felt-fair pay," is a subjective datum as perceived by the subordinate for the work he performs. One of the questions which the author cites as being "of primary importance" asks the individual for his " . . . assessment of a fair or proper salary for the *work, not* for you as an individual." In spite of the similarity of responses on questionnaires and interviews, it seems questionable to assume that the individual can separate the value of his work from his perception of the value of the array of skills, background, and personal characteristics which he offers the employer in his work input.

The author's review of relevant economic theory is skimpy and contains some serious errors. For example, he asserts that classical wage theory "dealt with the problem of the general level of wages, stressing the role of the wage structure and the 'demand' side of wage theory." While it is true that Adam Smith stressed the importance of the structure

of wages, his analysis stressed the role of real costs borne by workers in performing their jobs—that is, classical wage theory stressed *supply,* not demand. There are similar difficulties in his characterizations of Marx as being optimistic on the possibility of higher wages (except in the event of a Revolution which destroys the capitalistic economy), Mill's wages fund doctrine, and so on. His criticism of the "economic man" assumption in economics is too narrow, and he tends to overlook Adam Smith's argument that the market allocates labor among occupations so that "The whole of the advantages and disadvantages of the different employments of labor and stock must, in the same neighborhood, be either perfectly equal or continually tending to equality." (*Wealth of Nations,* Book I, Chapter X.) These mistakes, however, would not be significant for readers who are primarily interested in the author's research design, methodology, and results.

This book draws heavily on a supporting body of literature on the psychological determinants of "felt-fair pay," and the author seems to direct his work at an audience of wage and salary administration personnel who are familiar with the supporting literature. The book should also prove valuable to investigators who are designing and conducting similar studies.

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Patrician reformer

Seth Low: The Reformer in an Urban and Industrial Age. By Gerald Kurland. New York, Twayne Publishers, Inc., 1971. 415 pp., bibliography. $7.95.

Seth Low deserves a larger place in the history of Progressive reform than Gerald Kurland's book is likely to make for him. The trouble is not only that Low left no personal papers or that he lacked "personal magnetism." This is a pedestrian biography of a remarkable figure.

Since Kurland's method is to let the sources speak for themselves, it is fortunate that Low's public papers bear the strong imprint of his acute and balanced mind as he grappled with the urban and industrial problems of 1880–1916. Low was refreshingly free from the "goo-goo" moralism, sentimental nostalgia, nativism, racism, intellectual dogmatism, status anxieties, and narrow class interests that recent historians have detected among other Mugwumps and Progressives. As reform mayor of Brooklyn (1882–85) and New York (1902–03), he responded forthrightly to the working class needs that machine politicians served corruptly. He respected immigrant customs, tolerating saloons that discreetly evaded the Sunday blue laws. In realizing that "democratic" electoral reforms like the initiative and referendum were liable to manipulation by a small but well-organized minority, Low anticipated the historians by a good 50 years.

Low recognized early that the old individualism was obsolete, for labor as well as capital. He sought, while president of Columbia University (1890–1901) and as an official of the National Civic Federation (1905–16, president 1908–16), to promote the rights of organized labor as an integral part of the new economic system. Frequent experience as an arbitrator made him a leading opponent of strike injunctions and a champion of exempting unions from the Sherman Antitrust Act. For the trusts he prescribed Federal incorporation to permit interstate regulation of specific abuses. Whatever he lacked in charisma, Low made up for in sympathy and shrewdness. During the 1907 telegraphers' strike he wrote, to a critic of union "dictation," that "one might as well ignore the officers of the Western Union and claim the right to deal direct with the stockholders . . . as to deny to Union employees the right . . . of being represented by their chosen officials."

Kurland is overly content, however, to reproduce the ideas of that time. If Low in 1888 had a notion that social progress was always brought about by the "outs" among economic interest groups, who were "liberals" simply because they wanted to become the "ins," that is good enough for his biographer. Objecting to other historians' penchant for generalization, Kurland prefers to recount "actual historical events." But on matters not to be found in Progressive sources, such as the Puritan sermon or the urbanism of 18th century cities, he falls into simple errors. At the same time he swallows almost anything alleged by the reformers—the vast social significance of a minuscule cut in city taxes, or the unsupported assertion, in 1903, that New York building tradesmen's wages had risen to $24–30 a week.

The book ends in a quibble with historians who suggest that Progressives were in some sense "conservative." Kurland's more promising concept of "patrician reformer," which does fit Low exactly,

remains a mere label. Satisfied that this gentleman of inherited mercantile wealth was a liberal, Kurland wonders how anyone could find anything conservative about him. In fact Seth Low might well have said, as Franklin Roosevelt did 20 years after his death, "I am that kind of liberal."

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A starting point for objective measurement

Appraising Managers as Managers. By Harold Koontz. New York, McGraw-Hill Book Co., 1971, 238 pp. $9.95.

As Professor Koontz points out, efforts to appraise managerial performance have too often centered around a manager's personality traits and characteristics. These kinds of systems have fallen into disrepute largely because of wide-ranging differences in techniques, invalid criteria, questionable standards employed by appraisers, and the unavoidable introduction of bias. Lacking clear, objective criteria and standards, appraisers feel uncomfortable and do not enjoy the inevitable, interpersonal encounters which these subjective appraisals evoke. Nor do they enjoy "playing God."

The author cites the Management by Objective movement (MBO) as a positive step in the direction of providing at least one piece of an effective management appraisal system. For the most part, the emphasis of the MBO movement has been on "factors" of performance that have been relatively easy to quantify. Goals and objectives should be developed jointly by the manager and his supervisor, and the subsequent appraisal should objectively measure the degree to which these mutually set goals and objectives have been attained.

Unfortunately, many organizations have viewed the MBO approach as *the* total management appraisal system. An effective system must encompass performance in at least two significant areas: (1) Setting and achieving of goals and objectives, and (2) performance as a manager in areas such as delegation, training of subordinates, decisionmaking, analytical ability, flexibility, organization and other planning, staff selection, staff appraisal, leadership, and so forth.

The author's proposed system emphasizes an appraisal of the processes of management which are an integral part of an overall management appraisal system. He suggests using the "basic principles of management" as standards, and in his system he utilizes those which he has set out in his earlier text, *Principles of Management,* coauthored with C. O'Donnell (New York, McGraw-Hill Book Co., 1968, 4th ed.). These are "planning, organizing, staffing, directing, and controlling"—standards common to most managerial positions and known both here and abroad.

A checklist was developed for each basic function to provide comprehensive, reasonably specific descriptions of factors essential to the successful attainment of that standard. In all, there are 83 check points or critical points indicating a manager's competency or understanding, distributed over the five functions of management, with a rating scale from 5.0 down to 0.0 to differentiate the quality of performance.

To be successful, a system of this type requires commitment from top management and the allocation of adequate time for the appraisers to do a complete job. Those who are being appraised must be convinced that the system is being used and that top management is serious about it. The system must be objective and relatively simple. It must include only those check points pertinent to the position being evaluated. The standards against which performance is being evaluated must be clear, and both the manager and his appraiser must be convinced that the correct factors are being measured. It should require that the appraiser's supervisor review the appraisal.

The system, to be truly effective, should be tied to a policy of reward and punishment. For example, compensation could be tied to the rating, as could new training opportunities, new assignments, promotions, and so on. On the other hand, inadequate performance must be identified and corrective action taken.

All of us who are concerned with managerial performance have been looking long and hard for a workable system that can objectively measure nonquantitative aspects of a manager's performance. Undoubtedly, Professor Koontz will change and modify his system, but it is an excellent starting point for use and experimentation.

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Other recent publications

Economic growth and development

Beckford, George L., *Persistent Poverty: Underdevelopment in Plantation Economies of the Third World.* New York, Oxford University Press, 1972, 303 pp. $7.50, cloth; $2.95, paper.

Boulding, Kenneth E. and Tapan Mukerjee, *Economic Imperialism: A Book of Readings.* Ann Arbor, University of Michigan Press, 1972, 338 pp. $10, cloth; $3.95, paper.

Carnoy, Martin, *Industrialization in a Latin American Common Market.* Washington, Brookings Institution, 1972, 267 pp. $8.95.

Enke, Stephen, "Economic Consequences of Rapid Population Growth," *Economic Journal,* December 1971, pp. 800–811.

Johnson, Walter L. and David R. Kamerschen, *Readings in Economic Development.* Cincinnati, Ohio, South-Western Publishing Co., 1972, 502 pp. $6.25.

Mountjoy, Alan B., editor, *Developing the Underdeveloped Countries.* New York, John Wiley & Sons, Inc., 1971, 270 pp.

Nobbs, Jack, *Economic Problems of the 1970's.* Elmsford, N.Y., Pergamon Publishing Co., 1971, 274 pp. $7.50.

Powelson, John P., *Institutions of Economic Growth: A Theory of Conflict Management in Developing Countries.* Princeton, N.J., Princeton University Press, 1972, 281 pp. $10.

Purser, W. F. C., *Metal-Mining in Peru, Past and Present.* New York, Praeger Publishers, Inc., 1971, 339 pp. $18.50.

Rainwater, Lee, "Post-1984 America," *Society,* February 1972, pp. 18–27.

Wood, Oliver G., Jr., et al, *The BASF Controversy: Employment vs. Environment.* Columbia, University of South Carolina, 1971, 75 pp. (Essays in Economics, 25.) $2.50.

Economic statistics

Grosse, Robert N., "Cost-Benefit Analysis of Health Service," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 89–99.

Hettich, Walter, *Why Distribution is Important: An Examination of Equity and Efficiency Criteria in Benefit-Cost Analysis.* Ottawa, Economic Council of Canada, 1971. (Special Study 19.) $1, Information Canada, Ottawa.

Kuznets, Simon, "Problems in Comparing Recent Growth Rates for Developed and Less Developed Countries," *Economic Development and Cultural Change,* University of Chicago, January 1972, pp. 185–209.

President's Commission on Federal Statistics, *Federal Statistics: Report of the President's Commission.* Washington, 1971. Volume I, 267 pp. Volume II, 555 pp. $4, Superintendent of Documents, Washington.

Salmon, Wesley C., *Statistical Explanation and Statistical Relevance.* Pittsburgh, University of Pittsburgh Press, 1971, 117 pp. $2.

U.S. Bureau of the Census, *Census Bureau Methodological Research, 1970: An Annotated List of Papers and Reports.* Washington, U.S. Department of Commerce, 1971, 15 pp. 30 cents, Superintendent of Documents, Washington.

Education

Corazzini, Arthur J., Dennis J. Dugan, Henry G. Grabowski, "Determinants and Distributional Aspects of Enrollment in U.S. Higher Education," *Journal of Human Resources,* Winter 1972, pp. 39–59.

Gwartney, James D., "Discrimination, Achievement, and Payoffs of a College Degree," *Journal of Human Resources,* Winter 1972, pp. 60–70.

Howe, Harold, II, "Financing Schools: Property Tax is Obsolete—Anatomy of a Revolution," *Saturday Review,* November 20, 1971, pp. 84–92.

Lovell, Malcolm R., Jr., "Let's Cure Job Unreadiness," *Manpower,* February 1972, pp. 26–28.

Lyon, David W., "Capitalism in the Classroom: Education Vouchers," Federal Reserve Bank of Philadelphia *Business Review,* December 1971, pp. 3–10.

National Education Association, *Estimates of School Statistics, 1971–72.* Washington, National Education Association, 1971, 38 pp. (Research Report 1971–R13.) $1.50.

Owen, John D., "The Distribution of Educational Resources in Large American Cities," *Journal of Human Resources,* Winter 1972, pp. 26–38.

Pearl, Arthur, *The Atrocity of Education.* St. Louis, Mo., New Critics Press, Inc., 1972, 365 pp. $9.95, E. P. Dutton & Co., Inc. New York.

Rogers, Daniel C., "Student Loan Programs and the Returns to Investment in Higher Levels of Education in Kenya," *Economic Development and Cultural Change.* University of Chicago, January 1972, pp. 243–259.

Tesconi, Charles A., Jr., and Van Cleve Morris, *The Anti-*

Man Culture: Bureautechnocracy and the Schools. Urbana, University of Illinois Press, 1972, 232 pp. $8.95.

Weiss, Yoram, "Investment in Graduate Education," *American Economic Review,* December 1971, pp. 833–852.

Westervelt, Esther Manning and Deborah A. Fixter, *Women's Higher and Continuing Education: An Annotated Bibliography With Selected References on Related Aspects of Women's Lives.* New York, College Entrance Examination Board, 1971, 67 pp. $1.50.

Wise, Arthur E., "Financing Schools: Property Tax is Obsolete—The California Doctrine," *Saturday Review,* November 20, 1971, pp. 78–83.

Industrial health and safety

Berkwitt, George J., "The Crushing Cost of Safety," *Dun's,* January 1972, pp. 53–54.

de Villiers, A. J., et al, "Mortality Experience of the Community and of the Fluorspar Mining Employees at St. Lawrence, Newfoundland," *Occupational Health Review,* Department of National Health and Safety, Canada, Nos. 1–2, 1971, pp. 1–15.

Kissick, William Lee and Samuel P. Martin, "Issues of the Future in Health," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 151–159.

McQuade, Walter, "What Stress Can Do to You," *Fortune,* January 1972, pp. 102–107, 134–141.

U.S. Department of Health, Education and Welfare, "Black Lung Benefits: An Administrative Review," *Social Security Bulletin,* October 1971, pp. 11–21.

Winthrop, S. O., "Air Pollution in the Urban Environment," *Occupational Health Review,* Department of National Health and Welfare, Canada, Nos. 1–2, 1971, pp. 26–35.

Industrial relations

Alderfer, Harold F., "The 1971 Pennsylvania Public School Strikes," *Labor Law Journal,* January 1972, pp. 41–50.

Belcher, A. Lee, Hugh P. Avery, Oscar S. Smith, *Labor Relations in Higher Education.* Washington, College and University Personnel Association, 1971, 106 pp. $6.50.

Canada Department of Labor, "Provisions in collective agreements covering office employees in Canadian manufacturing industries, Part 1," *Labor Gazette,* January 1972, pp. 33–39.

Canada Department of Labor, "Provisions in Major Collective Agreements in Canadian Hospitals," *Labor Gazette,* December 1971, pp. 792–795.

de Menil, George, *Bargaining: Monopoly Power versus Union Power.* Cambridge, Mass., MIT Press, 1971, 123 pp. $8.95.

Finn, Ed., "Resolving Industrial Strife: Is There a Better Way?" *Labor Gazette,* Canada Department of Labor, December 1971, pp. 774–783.

Foegen, J. H., "If Everybody Strikes, Will the Band Wagon Stop?" *Business Horizons,* Indiana University Graduate School of Business, December 1971, pp. 17–22.

Grimes, John A., "Legal Services as a New Union Benefit," *American Federationist,* January 1972, pp. 16–21.

Gunther, K., "Special Complaint Procedures Concerning Discrimination in Employment," *International Labor Review,* November 1971, pp. 351–365.

Hemskey, Jay E., "Collective Bargaining for State Employees: The Potentials of Pennsylvania's Public Employee Relations Act 195 of 1970," *Public Personnel Review,* January 1972, pp. 37–43.

International Labor Office, *Participation by Employers' and Workers' Organizations in Economic and Social Planning: A General Introduction.* Geneva, International Labor Office, 1971, 247 pp. $4.

Krislov, Joseph and Robert M. Peters, "The Arbitration of Grievances in Educational Units in the Late 1960's," *Labor Law Journal,* January 1972, pp. 25–31.

Levine, Marvin J., "Labor Relations Status of Supervisors in the Federal Government," *Public Personnel Review,* January 1972, pp. 25–28.

Madden, John V., " 'No One . . . a Judge of His Own Cause'—The Federal Employee and the Bill of Rights," *Labor Law Journal,* January 1972, pp. 3–12.

Master Printers of America, *Two Worlds: The Restrictive Practices of Printing Trade Unions.* Arlington, Va., Master Printers of America, 1971, 57 pp. $2.

McGuckin, John H., Jr., "Grist for the Arbitrators' Mill: What GM and the UAW Argue About," *Labor Law Journal,* October 1971, pp. 647–664.

Pati, Gopal C. and Lawrence G. Hill, "Economic Strikers, Public Aid and Industrial Relations," *Labor Law Journal,* January 1972, pp. 32–40.

Reichel, Hans, "Recent Trends in Collective Bargaining in the Federal Republic of Germany," *International Labor Review,* December 1971, pp. 469–487.

Samoff, Bernard, "The Case of the Burgeoning Load of

the NLRB," *Labor Law Journal,* October 1971, pp. 611–630.

Shirom, Areih, "Comparative Analysis of the Phenomenon of Strikes for Industrial Countries, in the Years 1960–1969," *Labor and National Insurance* (Monthly Review of the Ministry of Labor, Israel), October 1971.

Smith, Arthur B., Jr., "Boycotts of Prefabricated Building Products and the Regulation of Technological Change on Construction Jobsites," *Industrial and Labor Relations Review,* January 1972, pp. 186–199.

Stanley, David T., *Managing Local Government Under Union Pressure.* Washington, Brookings Institution, 1972, 177 pp. (Studies of Unionism in Government.) $6.95.

Staudohar, Paul D., "Public Employee Grievance and Arbitration: Some Unresolved Issues," *Public Personnel Review,* January 1972, pp. 56–61.

Stern, James L., "Consequences of Plant Closure," *Journal of Human Resources,* Winter 1972, pp. 3–25.

International economics

Committee for Economic Development, *The United States and the European Community: Policies for a Changing World Economy.* New York, Committee for Economic Development, 1971, 75 pp. $1.50.

Grunwald, Joseph, Miguel S. Wionczek, Martin Carnoy, *Latin American Economic Integration and U.S. Policy.* Washington, Brookings Institution, 1972, 216 pp. $6.95.

MacEoin, Gary, *Revolution Next Door: Latin America in the 1970's.* New York, Holt, Rinehart and Winston, 1971, 243 pp. $6.95.

Olsen, Erling, *International Trade Theory and Regional Income Differences, United States 1880–1950.* Amsterdam, North-Holland Publishing Co., 1971, 221 pp. (Contributions to Economic Analysis, 70.) $13, Humanities Press, Inc., New York.

Labor and economic history

Beeman, Richard, "Labor Forces and Race Relations: A Comparative View of the Colonization of Brazil and Virginia," *Political Science Quarterly,* December 1971, pp. 609–636.

Hume, Brit, *Death and the Mines: Rebellion and Murder in the United Mine Workers.* New York, Grossman Publishers, 1971, 280 pp. $7.95.

Pflug, Warner W., *The UAW in Pictures.* Detroit, Wayne State University Press, 1971, 194 pp. $10, cloth; $4.95, paper.

Reed, Merl E., "Lumberjacks and Longshoremen: The I.W.W. in Louisiana," *Labor History,* Winter 1972, pp. 41–59.

Robbins, Lord, *Autobiography of an Economist.* New York, St. Martin's Press, 1971, 301 pp. $10.

Saturday Review and the Committee for Economic Development, "Does Economics Ignore You? A Report on the Realities and Fantasies of Men and Money": Leonard Silk, "Wanted: A More Human, Less Dismal Science"; Daniel R. Fusfeld, "Post-Post-Keynes: The Shattered Synthesis"; Robert Lekachman, "Phase II: Casting Light on Economic Power"; Marc J. Roberts, "An Unsimple Matter of Choice"; Robert A. Solo, "New Maths and Old Sterilities"; and Charles L. Schultze, "Is Economics Obsolete? No, Underemployed," *Saturday Review,* January 22, 1972, pp. 33–57.

Saxton, Alexander, *The Indispensable Enemy: Labor and the Anti-Chinese Movement in California.* Berkeley, University of California Press, 1971, 293 pp. $8.50.

Stearns, Peter N., editor, *The Impact of the Industrial Revolution: Protest and Alienation.* Englewood Cliffs, N.J., Prentice-Hall, Inc., 1972, 186 pp. $5.95.

Taft, Philip, "The Bisbee Deportation," *Labor History,* Winter 1972, pp. 3–40.

Labor force

Angel, Juvenal L., *Matching Armed Forces Training to Civilian Jobs.* New York, World Trade Academy Press, Inc., 1971, 536 pp. Simon & Schuster, Inc., New York.

Bower, Leonard G., "Interstate Migration of Labor-Force Age Population: Comment," *Industrial and Labor Relations Review,* January 1972, pp. 246–251.

Burton, John F. and John E. Parker, *The New Industrial Feudalism: Secular Trends in Voluntary Labor Mobility.* Chicago, University of Chicago, Industrial Relations Center, 1971. (No. 33.) $2.

Collings, Kent J., *The Second Time Around: Finding a Civilian Career in Mid-life.* Cranston, N.J., Carroll Press, Publishers, 1971, 180 pp. $5.75.

Engineers Joint Council, "Engineering Employment and Unemployment, 1971," *Engineering Manpower Bulletin,* October 1971, pp. 1–6. $1.50, Engineering Manpower Commission of Engineers Joint Council, 345 East 47th Street, New York, N.Y. 10017.

Engineering Manpower Commission, *Engineering and Technology Graduates, 1971.* New York, Engineers Joint Council, 1971, 76 pp. $5.

Friedland, William H. and Dorothy Nelkin, *Migrant—*

Agricultural Workers in America's Northeast. New York, Holt, Rinehart and Winston, 1971, 281 pp.

Gannon, Martin J. and Joseph C. Nothern, "A Comparison of Short-Term and Long-Term Part-Time Employment," *Personnel Psychology,* Winter 1971, pp. 687–696.

Lecht, Leonard A., "Health Manpower Needs, Health Goals and Planning for the 1970's," *Looking Ahead,* National Planning Association, December 1971, pp. 1–4, 7–8.

Leone, Richard D., "The Underutilization of Negroes as Truckdrivers by For-Hire Motor Carriers," *Labor Law Journal,* October 1971, pp. 631–646.

Levine, Marvin J. and Anthony J. Montcalmo, "The Equal Employment Opportunity Commission: Progress, Problems, Prospects," *Labor Law Journal,* December 1971, pp. 771–779.

Lynch, Michael, "The Physician 'Shortage': The Economists' Mirror," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 82–88.

Miller, Glenn W., "Manpower in the Public Sector," *Public Personnel Review,* January 1972, pp. 50–55.

New York State Department of Labor, *Manpower Requirements: Interim Projections, New York State, 1968–80.* 1971, 160 pp. (Publication B–185.)

O'Connell, John F., "The Labor Market for Engineers: An Alternative Methodology," *Journal of Human Resources,* Winter 1972, pp. 71–86.

Strauss, Robert P., "Industrial Patterns of Male Negro Employment," *Journal of Human Resources,* Winter 1972, pp. 111–118.

U.S. Bureau of Labor Statistics, *Scientific and Technical Personnel in Industry, 1969.* Washington, 1971, 35 pp. (BLS Bulletin 1723.) 45 cents, Superintendent of Documents, Washington.

U.S. Bureau of the Census, *Marital Status and Living Arrangements: March 1971.* Washington, U.S. Department of Commerce, 1971, 38 pp. (Current Population Reports: Population Characteristics, Series P–21, No. 225.) 50 cents, Superintendent of Documents, Washington.

U.S. Bureau of the Census, *Projections of the Population of the United States, by Age and Sex: 1970 to 2000.* Washington, U.S. Department of Commerce, 1971, 56 pp. (Current Population Reports: Population Estimates and Projections, Series P–25, No. 470.) 60 cents, Superintendent of Documents, Washington.

U.S. Public Health Service, *Health Manpower: A County and Metropolitan Area Data Book.* Rockville, Md., National Center for Health Statistics, 1971, 164 pp. (Public Health Service Publication No. 2044.) $1.75, Superintendent of Documents, Washington.

Welch, Finis and Sherwin Rosen, "A Note on the Estimation of Labor Supply Effects and Income Redistribution Policy," *Journal of Human Resources,* Winter 1972, pp. 104–111.

Management and organization theory

Booms, Bernard H., "The Black M.B.A.: An Alternative to Black Capitalism?" *Business Horizons,* Indiana University Graduate School of Business, December 1971, pp. 47–53.

Chapple, Eliot D., "Work or Productive Participation," *Rehabilitation Record,* January–February 1972, pp. 11–14.

Churchman, C. West, *The Design of Inquiring Systems: Basic Concepts of Systems and Organization.* New York, Basic Books, Inc., 1971, 288 pp. $10.

Cummings, Paul W., "Why I Wanted to be a Foreman—A Study in Supervisory Motivation," *Public Personnel Review,* January 1972, pp. 6–10.

Farr, James L., Brian S. O'Leary, C. J. Bartlett, "Ethnic Group Membership as a Moderator of the Prediction of Job Performance," *Personnel Psychology,* Winter 1971, pp. 609–636.

Hoffman, Frank G., "The Management of Personnel Retrenchment," *Personnel,* November–December 1971, pp. 44–53.

Kavanagh, Michael J., "The Content Issue in Performance Appraisals: A Review," *Personnel Psychology,* Winter 1971, pp. 653–668.

Klein, Stuart M., *Workers Under Stress: The Impact of Work Pressure on Group Cohesion.* Lexington, University Press of Kentucky, 1971, 123 pp. $7.50.

Lawrence, R. J. and M. J. Thomas, editors, *Modern Marketing Management: Selected Readings.* Baltimore, Md., Penguin Books, Inc., 1971, 413 pp. $3.95.

Lewis, Willard A., "The Personnel Manager-as-Compliance-Officer," *Personnel Journal,* December 1971, pp. 907–915.

Marschak, Jacob and Roy Radner, *Economic Theory of Teams.* New Haven, Yale University Press, 1972, 345 pp. $15.

Oberg, Winston, "Make Performance Appraisal Relevant," *Harvard Business Review,* January–February 1972, pp. 61–67.

Organ, Dennis W., "Linking Pins Between Organizations and Environment," *Business Horizons,* Indiana Uni-

versity Graduate School of Business, December 1971, pp. 73–80.

Sedwick, Robert C. and Donald J. Bodwell, "The Hard-Core Employee—Key to High Retention," *Personnel Journal,* December 1971, pp. 948–953.

Srb, Jozetta H., *Communicating With Employees About Pension and Welfare Benefits.* Ithaca, Cornell University, New York State School of Industrial and Labor Relations, 1971, 39 pp. (Key Issues Series, 8.) $2.

Uhles, Ernest N., *How to Become an Effective Supervisor: A Survival Manual for the Man in the Middle.* New York, Exposition Press, 1971, 120 pp. $5.

Waters, L. K. and Darrell Roach, "The Two-Factor Theories of Job Satisfaction: Empirical Tests for Four Samples of Insurance Company Employees," *Personnel Psychology*, Winter 1971, pp. 697–705.

Weisskopf, Walter A., *Alientation and Economics,* New York, E. P. Dutton & Co., Inc., 1971, 202 pp. $7.95.

Woska, William J., "Sick Leave Incentive Plans—A Benefit to Consider," *Public Personnel Review,* January 1972, pp. 21–24.

Manpower training and development

Adams, Alan E., "New Directions in Manpower Policy," *American Federationist,* January 1972, pp. 8–15.

Borus, Michael E. and Charles G. Buntz, "Problems and Issues in the Evaluation of Manpower Programs," *Industrial and Labor Relations Review,* January 1972, pp. 234–245.

Casasco, Juan A. and Armando M. Lago, "Evaluating Municipal Manpower Training Programs," *Public Personnel Review,* January 1972, pp 44–49.

Drotning, John E., David B. Lipsky, Myron D. Fottler, "Union Attitudes Toward Significant Aspects of Job Training Programs for the Disadvantaged," *Labor Law Journal,* January 1972, pp. 13–24.

Ginzberg, Eli, "A Critical Look at Career Guidance," *Manpower,* February 1972, pp. 3–6.

Hamermesh, Daniel S., *Economic Aspects of Manpower Training Programs: Theory and Policy.* Lexington, Mass., D.C. Heath and Co., 145 pp.

Holt, Charles C. et al, *Manpower Programs to Reduce Inflation and Unemployment: Manpower Lyrics for Macro Music.* Washington, Urban Institute, 1971, 133 pp. $2.50.

Maurizi, Alex, "Minority Membership in Apprenticeship Programs in the Construction Trades," *Industrial and Labor Relations Review,* January 1972, pp. 200–206.

Mestre, Eloy R., *Economic Minorities in Manpower Development.* Lexington, Mass., D.C. Heath and Co., 1971, 160 pp. $12.50.

Morse, Gerry E., "Mandate for Education and Training: Focus on the Individual," *Personnel,* November–December 1971, pp. 8–16.

Somers, Gerald G., *The Availability of Data on Company Training Programs: A Feasibility Study.* Madison, University of Wisconsin, Center for Studies in Vocational and Technical Education, 1971, 65 pp. $1.50.

Prices and living conditions

Anderson, Ronald and J. Joel May, "Factors Associated With the Increasing Cost of Hospital Care," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 62–72.

Auld, D. A. L., "Consumer Welfare and Product Differentiation," *Quarterly Review of Economics & Business,* Winter 1971, pp. 81–84.

Butler, Arthur and Philip Della Valle, " 'Surprise' Inflation, Economic Growth, and Employment," *International Labor Review,* December 1971, pp. 489–504.

Chester, Theodore E., "United States Hospital Costs in International Perspective," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 73–81.

DeSerpa, A. C., "A Theory of the Economics of Time," *Economic Journal,* December 1971, pp. 828–846.

De Simone, Daniel V., "Moving to Metric Makes Dollars and Sense," *Harvard Business Review,* January–February 1972, pp. 100–111.

Editors of Ramparts with Frank Browning, *In the Marketplace: Consumerism in America.* New York, Harper & Row, Publishers, Inc., 1972, 245 pp. $2.95, Canfield Press, San Francisco.

Federal Reserve Systems, "Prices in 1971," *Federal Reserve Bulletin,* December 1971, pp. 957–970.

Feldstein, Martin S., "Hospital Cost Inflation: A Study of Nonprofit Price Dynamics," *American Economic Review,* December 1971, pp. 853–872.

Feldstein, Martin S., *The Rising Cost of Hospital Care.* Washington, Information Resources Press, 1971, 88 pp. (Published for the National Center for Health Services Research and Development, U.S. Department of Health, Education, and Welfare.) $4.25.

Markin, Rom J., "Consumerism: Militant Consumer Behavior." *Business and Society*, Roosevelt University, Fall 1971, pp. 5–17.

National Planning Association, "State and Regional Patterns of Consumer Spending and Saving," *Projection Highlights*, January 1972, pp. 1–4.

Neuhauser, Duncan and Fernand Turcotte, "Costs and Quality of Care in Different Types of Hospitals," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 50–61.

Reinke, William A., "The Classification of Households by Economic Level," *Economic Development and Cultural Change*, University of Chicago, January 1972, pp. 235–242.

Rice, Dorothy P. and Barbara S. Cooper, "National Health Expenditures, 1929–71," *Social Security Bulletin*, January 1972, pp. 3–18.

Weaver, Jerry L., "Attitudes Toward Rising Health Care Service Costs," *Urban Affairs Quarterly*, December 1971, pp. 243–246.

Productivity and technological change

Brown, Harrison and Edward Hutchings, Jr., editors, *Are Our Descendants Doomed? Technological Change and Population Growth*. New York, Viking Press, 1972, 377 pp. $12.50.

Eltis, W. A., "The Determination of the Rate of Technical Progress," *Economic Journal*, September 1971, pp. 502–524.

Rose, Sanford, "The News About Productivity is Better Than You Think," *Fortune*, February 1972, pp. 98–101, 182–190.

Rosow, Jerome M., "Now is the Time for Productivity Bargaining," *Harvard Business Review*, January–February 1972, pp. 78–89.

United Steelworkers of America, *The Joint Advisory Committee on Productivity*. Pittsburgh, Pa., United Steelworkers of America, 1971, 46 pp. (Pamphlet PR–206.)

Urban Institute, *The Struggle to Bring Technology to Cities*. Washington, Urban Institute, 1971, 79 pp. $1.95.

Weber, Ernst, Gordon K. Teal, A. George Schillinger, editors, *Technology Forecast for 1980*. New York, Van Nostrand Reinhold Co., 1971, 242 pp. $13.50.

Social institutions and social change

Bahr, Horward M., Bruce A. Chadwick, Robert C. Day, editors, *Native Americans Today: Sociological Perspectives*. New York, Harper & Row, Publishers, 1972, 547 pp.

Blawis, Patricia Bell, *Tijerina and the Land Grants: Mexican Americans in Struggle for Their Heritage*. New York, International Publishers, 1971, 191 pp. $6.95, cloth; $2.65, paper.

Bork, Robert H., "We Suddenly Feel That Law is Vulnerable," *Fortune*, December 1971, pp. 115–117, 136–143.

Campbell, Angus, *White Attitudes Toward Black People*. Ann Arbor, University of Michigan, Institute for Social Research, 1971, 177 pp.

Campbell, Donald T., "Reforms as Experiments," *Urban Affairs Quarterly*, December 1971, pp. 133–171, 187–192.

Coles, Robert, *Migrants, Sharecroppers, Mountaineers: Volume II of Children of Crisis*. Boston, Little, Brown and Co., 1971, 653 pp. $12.50.

Coles, Robert, *The South Goes North: Volume III of Children of Crisis*. Boston, Little, Brown and Co., 1971, 687 pp. $12.50.

Flax, Michael J., *Blacks and Whites: An Experiment in Racial Indicators*. Washington, Urban Institute, 1971, 79 pp. $1.50.

Greeley, Andrew M. and Paul B. Sheatsley, "Attitudes Toward Racial Integration," *Scientific American*, December 1971, pp. 13–19.

Hahn, Harlan, editor, *Police in Urban Society*. Beverly Hills, Calif., Sage Publications, 1971, 319 pp. $10.

Light, Ivan H., *Ethnic Enterprise in America: Business and Welfare Among Chinese, Japanese, and Blacks*. Berkeley, University of California Press, 1972, 209 pp. $7.95.

Lipman-Blumen, Jean, "How Ideology Shapes Women's Lives," *Scientific American*, January 1972, pp. 34–42.

Reiss, Albert, Jr., *The Police and the Public*. New Haven, Conn., Yale University Press, 1971, 228 pp. $7.95.

Rendon, Armando B., *Chicano Manifesto*. New York, Macmillan Co., 1971, 337 pp. $7.95.

Walls, Davis S. and John B. Stephenson, editors, *Appalachia in the Sixties: Decade of Reawakening*. Lexington, University Press of Kentucky, 1972, 261 pp. $8.50.

Urban affairs

Forman, Robert E., *Black Ghettos, White Ghettos, and Slums*. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1972, 184 pp. $6, cloth; $2.50, paper.

Glover, Clifford, "The Problems Associated with Rapid Urban Growth," *OECD Observer,* October 1971, pp. 5–10.

Murphy, Russell D., *Political Entrepreneurs and Urban Poverty—The Strategies of Policy Innovation in New Haven's Model Anti-Poverty Project.* Lexington, Mass., D.C. Heath and Co., 1971, 208 pp.

Schiltz, Timothy and William Moffitt, "Inner-city/Outer-city Relationships in Metropolitan Areas: A Bibliographic Essay," *Urban Affairs Quarterly,* September 1971, pp. 75–108.

Sternleib, George S., Robert W. Burchell, Lynne Sagalyn, *The Affluent Suburb: Princeton.* New Brunswick, N.J., Transaction Books, 1971, 259 pp. $9.75.

Sternlieb, George, "Death of the American Dream House," *Society,* February 1972, pp. 39–42.

Ward, Barbara, "Urbanization: A Worldwide Process," *Social Education,* January 1972, pp. 21–28, 94.

Wellington, Harry H. and Ralph K. Winter, Jr., *The Unions and the Cities.* Washington, Brookings Institution, 1971, 226 pp. (Studies of Unionism in Government.) $7.95.

Wood, Robert C., *The Necessary Majority: Middle America and the Urban Crisis.* New York, Columbia University Press, 1972, 95 pp. $5.95.

Wages and compensation

Coelho, Philip R. P. and Moheb A. Ghali, "The End of the North-South Wage Differential," *American Economic Review,* December 1971, pp. 932–937.

Croner, Melvyn D., "Compensation Planning for a State Government," *Compensation Review,* First Quarter 1972, pp. 35–42.

Ehrenberg, Ronald G., *Fringe Benefits and Overtime Behavior: Theoretical and Econometric Analysis.* Lexington, Mass., D.C. Heath and Co., 1971, 161 pp. $13.50.

Ellig, Bruce R., "Retirement Annuities: Testing Competitiveness," *Compensation Review,* First Quarter 1972, pp. 19–34.

Gatons, Paul K. and Richard J. Cebula, "Wage-Rate Analysis: Differentials and Indeterminacy," *Industrial and Labor Relations Review,* January 1972, pp. 207–212.

Gould, John P., *Davis-Bacon Act: The Economics of Prevailing Wage Laws.* Washington, American Enterprise Institute for Public Policy Research, 1971, 44 pp. $3.

Graham, Robert E., Jr., *Personal Income in South Carolina by Type, Source, and Geographic Areas, 1929–1969.* Columbia, University of South Carolina, 1971, 171 pp. (Essays in Economics, 24.) $3.

Great Britain, Department of Employment, "New Earnings Survey, 1971: Part I—General Results and Analyses by Agreement," *Department of Employment Gazette,* November 1971, pp. 985–1016; "Part II—Analyses by Industry and by Occupation," *Department of Employment Gazette,* December 1971, pp. 1103–1161.

Gustman, Alan L. and Martin Segal, "Wages, Wage Supplements, and the Interaction of Union Bargains in the Construction Industry," *Industrial and Labor Relations Review,* January 1972, pp. 179–185.

Kogi, Kazutaka, "Social Aspects of Shift Work in Japan," *International Labor Review,* November 1971, pp. 415–433.

Landon, John H. and Robert N. Baird, "Monopsony in the Market for Public School Teachers," *American Economic Review,* December 1971, pp. 966–971.

Macarov, David, "Is Salary Important?" *Rehabilitation Review,* January–February 1972, pp. 3–6.

Nagi, Saad Z. and Linda W. Hadley, "Disability Behavior: Income Change and Motivation to Work," *Industrial and Labor Relations Review,* January 1972, pp. 223–233.

National Education Association, "Scheduled Faculty Salaries in Higher Education, 1970–71," *NEA Research Bulletin,* December 1971, pp. 118–122.

Owen, John D., "Toward a Public Employment Wage Theory: Econometric Evidence on Teacher Quality," *Industrial and Labor Relations Review,* January 1972, pp. 213–222.

Price, Daniel N., "Cash Benefits for Short-Term Sickness, 1948–70," *Social Security Bulletin,* January 1972, pp. 19–29.

Sauer, Robert L., "Measuring Relative Worth of Managerial Positions," *Compensation Review,* First Quarter 1972, pp. 9–18.

Thornton, Robert J., "The Effects of Collective Negotiations on Teachers' Salaries," *Quarterly Review of Economics & Business,* Winter 1971, pp. 37–46.

U.S. Bureau of Labor Statistics, *Area Wage Survey: The Spokane, Washington, Metropolitan Area, June 1971.* Washington, 1971, 18 pp. (Bulletin 1685–88.) 30 cents, Superintendent of Documents, Washington. Also in this series, the metropolitan area of New York, N.Y. (Bulletin 1685–89), 64 pp., 65 cents.

U.S. Bureau of Labor Statistics, *Area Wage Survey: The Syracuse, N.Y., Metropolitan Area, July 1971.* Washington, 1971, 28 pp. (Bulletin 1725–10.) 35 cents, Superintendent of Documents, Washington. Other recent bulletins in this series include the metropolitan areas of Boston, Mass.; Trenton, N.J.; Omaha, Neb.-Iowa; Chattanooga, Tenn.-Ga.; San Jose, Calif.; Baltimore, Md.; Cleveland, Ohio; and Kansas City, Mo.-Kans. (Bulletins 1725–11 through 1725–18.) Various pagings and prices.

U.S. Bureau of Labor Statistics, *Employee Compensation in the Private Nonfarm Economy, 1968.* Washington, 1971, 54 pp. (Bulletin 1722.) 60 cents, Superintendent of Documents, Washington.

U.S. Bureau of Labor Statistics, *Industry Wage Survey: Men's and Boys' Suits and Coats, April 1970.* Washington, 1971, 87 pp. (Bulletin 1716.) $1, Superintendent of Documents, Washington.

U.S. Bureau of Labor Statistics, *Industry Wage Survey: Nonferrous Foundries, June 1970.* Washington, 1972, 46 pp. (Bulletin 1726.) 50 cents, Superintendent of Documents, Washington.

U.S. Bureau of Labor Statistics, *Industry Wage Survey: Paperboard Containers and Boxes, March 1970.* Washington, 1971, 140 pp. (Bulletin 1719.) $1.25, Superintendent of Documents, Washington.

U.S. Bureau of Labor Statistics, *Wages and Tips in Restaurants and Hotels, March 1970.* Washington, 1971, 54 pp. (Bulletin 1712.) 60 cents, Superintendent of Documents, Washington.

U.S. Bureau of the Census, *Characteristics of the Low-Income Population, 1970.* Washington, U.S. Department of Commerce, 1971, 99 pp. (Current Population Reports: Consumer Income, Series P–60, No. 81.) $1, Superintendent of Documents, Washington.

Wachter, Michael L., "Wage Determination in a Local Labor Market: A Case Study of the Boston Labor Market," *Journal of Human Resources,* Winter 1972, pp. 87–103.

Welfare programs and social insurance

Adams, Leonard P., *Public Attitudes Toward Unemployment Insurance: A Historical Account With Special Reference to Alleged Abuses.* Kalamazoo, Mich., W. E. Upjohn Institute for Employment Research, 1971, 98 pp. $1.25.

Haanes-Olsen, Leif, "New Benefits for Blue-Collar Workers in Sweden," *Social Security Bulletin,* January 1972, pp. 32–35.

Handler, Joel F. and Ellen Jane Hollingsworth, *The "Deserving Poor"—A Study of Welfare Administration.* Chicago, Markham Publishing Co., 1971, 323 pp. (Institute for Research on Poverty Monograph Series.)

Holt, James S., "Extending Jobless Pay for Farmworkers," *Manpower,* December 1971, pp. 27–31.

Jaffe, A. J., *The Middle Years: Neither Too Young Nor Too Old.* New York, Columbia University, 1971, 90 pp. (A special issue of *Industrial Gerontology.*) $1.50, Bureau of Applied Social Research, Columbia University.

Juillia, Maurice, "Characteristics and Role of Services Dealing Specifically With Organization and Methods and the Introduction of New Management Techniques," *International Social Security Review,* No. 2, 1971, pp. 163–212.

Kasiev, M., "Health Protection and the Social Security of Workers in the USSR," *International Social Security Review,* No. 2, 1971, pp. 274–283.

Leveson, Irving, "The Challenge of Health Services for the Poor," *Annals* of the American Academy of Political and Social Science, January 1972, pp. 22–29.

Magrez, Michel, "Legal Bases of Financial Control of Social Security," *International Social Security Review,* No. 2, 1971, pp. 213–273.

Meyer, Mitchell and Harland Fox, *Early Retirement Programs.* New York, The Conference Board, Inc., 1971, 42 pp. (Conference Board Report 532.) $1, associate and educational; $5, nonassociate.

National Conference on Social Welfare, *Social Welfare Forum, 1971,* Official Proceedings of the 98th Annual Forum, Dallas, Tex., May 16–21, 1971. New York, Columbia University Press, 1971, 238 pp. $7.50.

National Conference on Social Welfare, *Social Work Practice, 1971,* Selected Papers, 98th Annual Forum, Dallas, Tex., May 16–21, 1971. New York, Columbia University Press, 1971, 170 pp. $7.50.

Rescher, Nicholas, *Welfare: The Social Issues in Philosophical Perspective.* Pittsburgh, University of Pittsburgh Press, 1972, 186 pp. $7.95.

Skolnik, Alfred M. and Sophie R. Dales, "Social Welfare Expenditures, 1970–71," *Social Security Bulletin,* December 1971, pp. 3–16.

Smith, Richard T. and Abraham M. Lilienfeld, *The Social Security Disability Program: An Evaluation Study,* Washington, U.S. Department of Health, Education, and Welfare, 1971, 297 pp. (Social Security Administration Research Report 39, DHEW Publication (SSA) 72–11801.) $1.25, Superintendent of Documents, Washington.

Current Labor Statistics

Schedule of release dates for major BLS statistical series, May 1972

Title	Date of release	Period covered	MLR table number
Productivity, wages and prices	May 3	1st quarter	33
Employment Situation	May 5	April	1–14
Wholesale Price Index	May 5	April	27–31
Consumer Price Index	May 19	April	25–26
Work Stoppages	May 26	April	32

Annual revision of seasonal adjustments

The household data in tables 2, 3, 4, 6, 7, 8, and 9 in this issue have been revised to reflect new seasonal factors. The Bureau recomputes seasonally adjusted labor force series at the beginning of each year, incorporating data through December of the previous year. In most cases, the changes are minimal. For a discussion of the seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of *Employment and Earnings*.

1. Employment status of the noninstitutional population, 16 years and over, 1947–71

[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
1970	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280
1971	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666

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

[In thousands]

Characteristic	Annual average		1968	1969				1970				1971			
	1970	1971	4th	1st	2d	3d	4th	1st	2d	3d	4th	1st	2d	3d	4th
WHITE															
Civilian labor force	73,518	74,790	70,351	71,204	71,508	72,019	72,417	73,174	73,324	73,604	74,210	74,317	74,422	74,843	**75,673**
Men, 20 years and over	42,464	43,088	41,405	41,681	41,646	41,863	41,936	42,267	42,473	42,514	42,712	42,709	43,050	43,250	**43,362**
Women, 20 years and over	24,616	25,030	23,111	23,528	23,737	23,970	24,121	24,450	24,459	24,687	24,916	24,930	24,777	24,980	**25,434**
Both sexes, 16–19 years	6,440	6,672	5,835	5,995	6,125	6,186	6,360	6,457	6,392	6,403	6,582	6,678	6,595	6,613	**6,877**
Employed	70,182	70,716	68,236	69,061	69,307	69,667	70,052	70,389	70,134	70,070	70,220	70,237	70,328	70,762	**71,572**
Men, 20 years and over	41,093	41,347	40,663	40,940	40,884	41,023	41,078	41,180	41,158	41,013	41,035	40,983	41,268	41,484	**41,665**
Women, 20 years and over	23,521	23,707	22,358	22,757	22,945	23,144	23,289	23,524	23,425	23,536	23,622	23,617	23,458	23,662	**24,081**
Both sexes, 16–19 years	5,569	5,662	5,215	5,364	5,478	5,500	5,685	5,685	5,551	5,521	5,563	5,637	5,602	5,616	**5,826**
Unemployed	3,337	4,074	2,115	2,143	2,201	2,352	2,365	2,785	3,190	3,534	3,990	4,080	4,094	4,081	**4,101**
Men, 20 years and over	1,371	1,741	742	741	762	840	858	1,087	1,315	1,501	1,677	1,726	1,782	1,766	**1,697**
Women, 20 years and over	1,095	1,324	753	771	792	826	832	926	1,034	1,151	1,294	1,313	1,319	1,318	**1,353**
Both sexes, 16–19 years	871	1,010	620	631	647	686	675	772	841	882	1,019	1,041	993	997	**1,051**
Unemployment rate	4.5	5.4	3.0	3.0	3.1	3.3	3.3	3.8	4.4	4.8	5.4	5.5	5.5	5.5	**5.4**
Men, 20 years and over	3.2	4.0	1.8	1.8	1.8	2.0	2.0	2.6	3.1	3.5	3.9	4.0	4.1	4.1	**3.9**
Women, 20 years and over	4.4	5.3	3.3	3.3	3.3	3.4	3.4	3.8	4.2	4.7	5.2	5.3	5.3	5.3	**5.3**
Both sexes, 16–19 years	13.5	15.1	10.6	10.5	10.6	11.1	10.6	12.0	13.2	13.8	15.5	15.6	15.1	15.1	**15.3**
NEGRO AND OTHER															
Civilian labor force	9,197	9,322	8,749	8,890	8,870	8,978	9,073	9,188	9,225	9,208	9,188	9,270	9,272	9,388	**9,372**
Men, 20 years and over	4,461	4,773	4,518	4,552	4,550	4,583	4,631	4,697	4,703	4,765	4,755	4,748	4,752	4,792	**4,805**
Women, 20 years and over	4,726	3,769	3,473	3,535	3,539	3,597	3,620	3,656	3,695	3,656	3,649	3,741	3,748	3,797	**3,791**
Both sexes, 16–19 years	808	781	758	803	781	798	822	835	827	787	784	781	772	799	**776**
Employed	8,445	8,403	8,171	8,340	8,286	8,395	8,510	8,552	8,466	8,429	8,342	8,386	8,351	8,442	**8,427**
Men, 20 years and over	4,461	4,428	4,341	4,391	4,385	4,409	4,454	4,490	4,436	4,478	4,437	4,426	4,424	4,431	**4,427**
Women, 20 years and over	3,412	3,442	3,265	3,334	3,320	3,375	3,428	3,439	3,434	3,399	3,375	3,428	3,405	3,461	**3,473**
Both sexes, 16–19 years	573	533	565	615	518	611	628	623	596	552	530	532	522	550	**527**
Unemployed	752	919	578	550	584	583	563	636	759	779	846	884	921	946	**945**
Men, 20 years and over	265	345	177	161	165	174	177	207	267	287	318	322	328	361	**378**
Women, 20 years and over	252	326	208	201	219	222	192	217	261	257	274	313	343	336	**318**
Both sexes, 16–19 years	235	248	193	188	200	187	194	212	231	235	254	249	250	249	**249**
Unemployment rate	8.2	9.9	6.6	6.2	6.6	6.5	6.2	6.9	8.2	8.5	9.2	9.5	9.9	10.1	**10.1**
Men, 20 years and over	5.9	7.2	3.9	3.5	3.6	3.8	3.8	4.4	5.7	6.0	6.7	6.8	6.9	7.5	**7.9**
Women, 20 years and over	5.3	8.7	6.0	5.7	6.2	6.2	5.3	5.9	7.1	7.0	7.5	8.4	9.2	8.8	**8.4**
Both sexes, 16–19 years	29.1	31.7	25.5	23.4	25.6	23.4	23.6	25.4	27.9	29.9	32.4	31.9	32.4	31.2	**32.1**

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

3. Full-time and part-time status [1] of the civilian labor force, seasonally adjusted [2]

[Numbers in thousands]

Employment status	1971											1972	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[3]	Feb.
FULL TIME													
Total, 16 years and over:													
Civilian labor force	71,628	71,434	71,803	72,162	71,427	71,995	72,218	72,341	72,550	73,021	73,169	73,261	**72,997**
Employed	67,753	67,483	67,868	68,051	67,616	68,128	68,209	68,284	68,643	68,890	69,022	69,279	**69,123**
Unemployed	3,875	3,951	3,935	4,111	3,811	3,867	4,009	4,057	3,907	4,131	4,147	3,982	**3,874**
Unemployment rate	5.4	5.5	5.5	5.7	5.3	5.4	5.6	5.6	5.4	5.7	5.7	5.4	**5.3**
PART TIME													
Total, 16 years and over:													
Civilian labor force	11,757	12,022	11,881	11,819	12,064	11,954	12,211	12,293	12,190	12,125	12,083	12,595	**12,540**
Employed	10,732	10,958	10,794	10,743	11,100	10,918	11,086	11,280	11,158	11,094	11,072	11,476	**11,482**
Unemployed	1,025	1,064	1,087	1,076	964	1,036	1,125	1,013	1,032	1,031	1,011	1,119	**1,058**
Unemployment rate	8.7	8.9	9.1	9.1	8.0	8.7	9.2	8.2	8.5	8.5	8.4	8.9	**8.4**

[1] Persons on part-time schedules for economic reasons are included in the full-time employed category; unemployed persons are allocated by whether seeking full-time or part-time work.

[2] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

[3] Figures for periods prior to January 1972 in the tables and charts are not strictly comparable with current data because of the introduction of 1970 Census data into the estimation procedures. For example, the civilian labor force and employment totals for January 1972 were raised by more than 300,000 in the census adjustment. An explanation of the changes and an indication of the differences appears in "Revisions in the Current Population Survey" in the February 1972 issue of **Employment and Earnings.**

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

[In thousands]

Employment status	Annual average		1971											1972	
	1970	1971	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[2]	Feb.
TOTAL															
Total labor force	85,903	86,929	86,311	86,385	86,670	86,836	86,217	86,727	87,088	87,240	87,467	87,812	87,883	88,301	88,075
Civilian labor force	82,715	84,113	83,361	83,455	83,788	83,986	83,401	83,930	84,313	84,491	84,750	85,116	85,225	85,707	85,535
Employed	78,627	79,120	78,475	78,446	78,732	78,830	78,600	79,014	79,199	79,451	79,832	80,020	80,098	80,636	80,623
Agriculture	3,462	3,378	3,285	3,387	3,540	3,412	3,301	3,374	3,407	3,363	3,416	3,419	3,400	3,393	3,357
Nonagriculture	75,165	75,732	75,190	75,059	75,192	75,418	75,299	75,640	75,792	76,088	76,416	76,601	76,698	77,243	77,266
Unemployed	4,088	4,993	4,886	5,009	5,056	5,156	4,801	4,916	5,114	5,040	4,918	5,096	5,127	5,071	4,912
MEN, 20 YEARS AND OVER															
Total labor force	49,948	50,308	49,867	50,026	50,234	50,368	50,256	50,369	50,458	50,492	50,530	50,527	50,463	50,498	50,373
Civilian labor force	47,189	47,861	47,295	47,457	47,707	47,869	47,820	47,949	48,057	48,113	48,179	48,200	48,169	48,259	48,181
Employed	45,553	45,775	45,275	45,411	45,618	45,725	45,762	45,879	45,893	45,969	46,124	46,066	46,080	46,247	46,255
Agriculture	2,527	2,446	2,342	2,439	2,469	2,448	2,423	2,449	2,462	2,435	2,494	2,503	2,439	2,442	2,394
Nonagriculture	43,026	43,329	42,933	42,972	43,149	43,277	43,339	43,430	43,431	43,534	43,630	43,563	43,641	43,805	43,861
Unemployed	1,636	2,086	2,020	2,046	2,089	2,144	2,058	2,070	2,164	2,144	2,055	2,134	2,089	2,012	1,926
WOMEN, 20 YEARS AND OVER															
Civilian labor force	28,279	28,799	28,610	28,566	28,555	28,545	28,531	28,594	28,826	28,960	29,082	29,254	29,284	29,424	29,358
Employed	26,932	27,149	27,002	26,907	26,871	26,851	26,928	26,964	27,144	27,319	27,471	27,571	27,592	27,794	27,878
Agriculture	549	537	529	534	585	533	513	529	543	548	530	528	547	564	575
Nonagriculture	26,384	26,612	26,473	26,373	26,286	26,318	26,415	26,435	26,601	26,771	26,941	27,043	27,045	27,230	27,303
Unemployed	1,347	1,650	1,608	1,659	1,684	1,694	1,603	1,630	1,682	1,641	1,611	1,683	1,692	1,630	1,480
BOTH SEXES, 16–19 YEARS															
Civilian labor force	7,246	7,453	7,456	7,432	7,526	7,572	7,050	7,387	7,430	7,418	7,489	7,662	7,772	8,024	7,996
Employed	6,141	6,195	6,198	6,128	6,243	6,254	5,910	6,171	6,162	6,163	6,237	6,383	6,426	6,595	6,490
Agriculture	386	404	414	414	486	431	365	396	402	380	392	388	414	387	388
Nonagriculture	5,755	5,791	5,784	5,714	5,757	5,823	5,545	5,775	5,760	5,783	5,845	5,995	6,012	6,208	6,102
Unemployed	1,105	1,257	1,258	1,304	1,283	1,318	1,140	1,216	1,268	1,255	1,252	1,279	1,346	1,429	1,506

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

[2] See footnote 3, table 3, regarding the introduction of 1970 census population controls.

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

Characteristic	Annual average		1968	1969				1970				1971			
	1970	1971	4th	1st	2d	3d	4th	1st	2d	3d	4th	1st	2d	3d	4th
EMPLOYMENT (in thousands)	78,627	79,120	76,426	77,344	77,575	78,126	78,577	78,875	78,610	78,531	78,550	78,546	78,723	79,221	79,984
White-collar workers	37,997	38,252	35,857	36,266	36,699	36,961	37,445	37,940	38,004	37,970	38,074	37,938	38,004	38,456	38,612
Professional and technical	11,140	11,070	10,459	10,659	10,750	10,742	10,918	11,055	11,139	11,226	11,143	10,872	11,081	11,139	11,192
Managers and administrators, except farm	8,289	8,765	7,881	7,844	7,998	7,983	8,122	8,220	8,295	8,259	8,381	8,646	8,642	8,799	8,612
Sales workers	4,854	5,066	4,662	4,609	4,660	4,714	4,777	4,787	4,813	4,877	4,934	5,074	5,018	5,037	5,133
Clerical workers	13,714	13,440	12,855	13,154	13,291	13,522	13,628	13,878	13,757	13,608	13,616	13,346	13,263	13,481	13,675
Blue-collar workers	27,791	27,184	27,721	28,181	28,006	28,428	28,332	28,203	27,768	27,653	27,566	27,071	27,051	27,090	27,524
Craftsmen and kindred workers	10,158	10,178	10,124	10,283	10,054	10,200	10,235	10,235	10,135	10,124	10,149	10,106	10,119	10,111	10,373
Operatives	13,909	12,983	14,013	14,288	14,260	14,570	14,369	14,196	13,957	13,793	13,696	12,912	12,958	12,946	13,116
Nonfarm laborers	3,724	4,022	3,584	3,610	3,692	3,658	3,728	3,772	3,676	3,736	3,721	4,053	3,974	4,033	4,035
Service workers	9,712	10,676	9,421	9,509	9,494	9,509	9,594	9,610	9,620	9,814	9,804	10,627	10,607	10,715	10,751
Farm workers	3,126	3,008	3,375	3,431	3,393	3,229	3,121	3,141	3,206	3,108	3,033	2,988	3,033	2,992	3,023
UNEMPLOYMENT RATE	4.9	5.9	3.4	3.4	3.5	3.6	3.6	4.2	4.8	5.2	5.8	6.0	6.0	6.0	5.9
White-collar workers	2.8	3.5	1.9	2.0	2.0	2.2	2.1	2.4	2.7	2.9	3.4	3.6	3.5	3.5	3.5
Professional and technical	2.0	2.9	1.1	1.1	1.3	1.4	1.5	1.8	1.9	2.0	2.4	3.2	2.9	2.9	3.0
Managers and administrators, except farm	1.3	1.6	1.0	1.0	.9	.9	1.0	1.1	1.3	1.4	1.6	1.6	1.6	1.5	1.8
Sales workers	3.9	4.3	2.8	3.0	2.9	3.0	2.8	3.3	3.9	3.9	4.6	4.2	4.5	4.4	3.9
Clerical workers	4.0	4.8	2.8	2.9	2.8	3.2	3.1	3.4	3.9	4.1	4.8	4.9	4.8	4.9	4.8
Blue-collar workers	6.2	7.4	3.8	3.7	3.8	3.9	4.3	5.0	6.0	6.8	7.5	7.5	7.4	7.5	7.4
Craftsmen and kindred workers	3.8	4.7	2.2	2.2	2.1	2.1	2.3	2.7	3.9	4.5	4.6	4.7	4.3	5.3	4.7
Operatives	7.1	8.3	4.2	4.1	4.3	4.4	4.9	5.8	6.6	7.5	8.6	8.5	8.5	8.2	8.1
Nonfarm laborers	9.5	10.8	6.8	6.5	6.4	7.0	7.1	7.9	9.2	10.3	10.8	10.6	10.9	10.3	11.4
Service workers	5.3	6.3	4.4	4.0	4.4	4.5	4.0	4.7	5.0	5.5	6.0	6.1	6.3	6.5	6.4
Farm workers	2.6	2.6	1.7	1.6	1.9	2.1	1.9	2.1	2.6	2.9	3.0	2.8	2.1	2.7	2.8

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

NOTE: Comparisons with data prior to 1971 are affected by the reclassification of census occupations, introduced in January 1971. For an explanation of the changes, see "Revisions in Occupational Classifications for 1971" in the February 1971 issue of **Employment and Earnings.**

6. Unemployed persons by reason for unemployment, seasonally adjusted [1]

[Numbers in thousands]

Reason for unemployment	1971											1972	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
NUMBER OF UNEMPLOYED													
Lost last job	2,295	2,225	2,300	2,321	2,342	2,280	2,460	2,369	2,206	2,360	2,365	2,169	2,077
Left last job	635	593	602	611	501	510	572	583	541	629	666	564	603
Reentered labor force	1,325	1,511	1,459	1,513	1,371	1,534	1,509	1,536	1,486	1,493	1,432	1,652	1,503
Never worked before	589	658	666	705	558	570	651	603	663	651	736	742	713
PERCENT DISTRIBUTION													
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lost last job	47.4	44.6	45.8	45.1	49.1	46.6	47.4	46.5	45.1	46.0	45.5	42.3	42.4
Left last job	13.1	11.9	12.0	11.9	10.5	10.4	11.0	11.5	11.0	12.3	12.8	11.0	12.3
Reentered labor force	27.4	30.3	29.0	29.4	28.7	31.3	29.1	30.2	30.4	29.1	27.5	32.2	30.7
Never worked before	12.2	13.2	13.2	13.7	11.7	11.6	12.5	11.8	13.5	12.7	14.2	14.5	14.6
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE													
Lost last job	2.8	2.7	2.7	2.8	2.8	2.7	2.9	2.8	2.6	2.8	2.8	2.5	2.4
Left last job	.8	.7	.7	.7	.6	.6	.7	.7	.6	.7	.8	.7	.7
Reentered labor force	1.6	1.8	1.7	1.8	1.6	1.8	1.8	1.8	1.8	1.8	1.7	1.9	1.8
Never worked before	.7	.8	.8	.8	.7	.7	.8	.7	.8	.8	.9	.9	.8

[1] Seasonally adjusted data for unemployed persons who never worked before have been changed as a result of a revision in the seasonal adjustment procedures affecting this series.

NOTE: For additional detail or for data unadjusted for seasonal factors (formerly carried in this space), see **Employment and Earnings.**

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

Age and sex	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Oct.	Dec.	Jan.	Feb.
Total, 16 years and over	4.9	5.9	5.9	6.0	6.0	6.1	5.8	5.9	6.1	6.0	5.8	6.0	6.0	5.9	5.7
16 to 19 years	15.3	16.9	16.9	17.5	17.0	17.4	16.2	16.5	17.1	16.9	16.7	16.7	17.3	17.8	18.8
16 and 17 years	17.1	18.7	18.0	18.7	18.2	19.0	18.7	18.3	19.5	18.4	19.9	18.3	18.8	19.1	22.0
18 and 19 years	13.8	15.5	16.1	16.7	15.7	17.1	14.3	15.0	15.0	15.8	14.5	15.4	16.3	16.8	16.7
20 to 24 years	8.2	10.0	9.6	10.1	10.2	10.8	10.1	9.8	10.0	9.6	9.2	10.4	10.1	10.1	8.8
25 years and over	3.3	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.1	4.0	4.0	4.0	4.1	3.7	3.6
25 to 54 years	3.4	4.2	4.1	4.2	4.2	4.1	4.1	4.2	4.2	4.3	4.3	4.2	4.3	3.9	3.7
55 years and over	2.8	3.4	3.5	3.4	3.5	3.5	3.3	3.2	3.5	3.2	3.0	3.4	3.4	3.1	3.1
Male, 16 years and over	4.4	5.3	5.3	5.3	5.4	5.5	5.2	5.2	5.5	5.4	5.3	5.4	5.4	5.3	5.3
16 to 19 years	15.0	16.6	16.5	16.8	16.5	17.6	16.1	15.8	17.2	16.3	16.5	16.2	17.3	17.3	19.6
16 and 17 years	16.9	18.6	17.9	18.3	18.7	17.8	18.4	18.4	19.4	18.6	20.3	18.1	19.0	18.7	21.8
18 and 19 years	13.4	15.0	15.2	15.7	14.8	18.3	14.3	13.7	15.0	14.6	13.7	14.7	16.0	16.1	17.6
20 to 24 years	8.4	10.3	9.9	10.2	10.3	10.7	10.1	10.2	10.5	10.2	9.7	10.7	10.5	10.4	9.2
25 years and over	2.8	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.6	3.5	3.5	3.5	3.5	3.2	3.2
25 to 54 years	2.6	3.5	3.3	3.5	3.4	3.5	3.5	3.5	3.6	3.7	3.7	3.7	3.6	3.3	3.2
55 years and over	2.9	3.4	3.8	3.5	3.6	3.5	3.3	3.1	3.3	3.0	2.9	3.2	3.0	3.0	3.2
Female, 16 years and over	5.9	6.9	6.8	7.1	7.1	7.1	6.7	6.9	7.0	6.9	6.7	6.9	7.0	6.9	6.4
16 to 19 years	15.6	17.2	17.4	18.5	17.7	17.1	16.3	17.2	16.9	17.6	17.0	17.3	17.3	18.4	17.9
16 and 17 years	17.4	18.7	18.2	19.3	17.7	20.5	19.3	18.3	19.5	18.0	19.2	18.7	18.5	19.6	22.3
18 and 19 years	14.4	16.2	17.1	17.8	16.7	15.7	14.4	16.4	15.1	17.3	15.6	16.2	16.7	17.7	15.6
20 to 24 years	7.9	9.6	9.2	10.0	10.1	10.8	10.1	9.4	9.4	8.9	8.6	10.0	9.6	9.6	8.4
25 years and over	4.1	4.9	4.8	5.0	5.0	4.8	4.7	4.9	5.0	4.9	4.9	4.8	5.0	4.6	4.3
25 to 54 years	4.5	5.3	5.4	5.5	5.5	5.2	5.2	5.4	5.4	5.3	5.3	5.2	5.4	4.9	4.7
55 years and over	2.8	3.4	3.1	3.2	3.3	3.4	3.5	3.3	3.8	3.4	3.0	3.7	3.9	3.3	2.9

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

8. Unemployment indicators, seasonally adjusted [1]

[In percent]

Selected categories	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Total (all civilian workers)	4.9	5.9	5.9	6.0	6.0	6.1	5.8	5.9	6.1	6.0	5.8	6.0	6.0	5.9	5.7
Men, 20 years and over	3.5	4.4	4.3	4.3	4.4	4.5	4.3	4.3	4.5	4.5	4.3	4.4	4.3	4.2	4.0
Women, 20 years and over	4.8	5.7	5.6	5.8	5.9	5.9	5.6	5.7	5.8	5.7	5.5	5.8	5.8	5.5	5.0
Both sexes 16–19 years	15.3	16.9	16.9	17.5	17.0	17.4	16.2	16.5	17.1	16.9	16.7	16.7	17.3	17.8	18.8
White	4.5	5.4	5.4	5.5	5.6	5.6	5.3	5.4	5.6	5.4	5.3	5.6	5.4	5.3	5.1
Negro and other	8.2	9.9	9.6	9.5	9.8	10.5	9.4	10.0	9.9	10.4	10.4	9.4	10.4	10.6	10.5
Married men	2.6	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.2	3.3	3.0	3.3	3.2	3.0	2.8
Vietnam Era veterans,[2] men:															
20 to 29 years	6.9	8.8	8.4	9.2	9.1	9.3	8.9	8.6	9.3	9.8	8.0	8.5	8.4	8.5	7.4
20 to 24 years	9.3	12.2	11.9	12.6	13.2	13.2	13.5	11.2	13.4	12.3	9.7	12.0	12.6	12.3	9.7
25 to 29 years	4.3	5.7	5.2	6.1	5.4	5.8	4.7	6.3	5.7	7.6	6.5	5.6	5.1	5.6	5.4
Nonveterans, men:															
20 to 29 years	6.0	7.3	7.0	7.3	7.0	7.4	6.9	7.2	8.0	6.7	7.3	8.1	7.7	7.5	7.0
20 to 24 years	8.0	9.5	9.2	9.5	9.2	9.9	9.3	9.2	10.5	8.6	9.3	10.3	9.6	9.8	9.0
25 to 29 years	3.8	4.7	4.5	4.7	4.4	4.4	4.1	4.7	4.9	4.4	4.9	5.5	5.2	4.5	4.4
Full-time workers	4.5	5.5	5.4	5.5	5.5	5.7	5.3	5.4	5.6	5.6	5.4	5.7	5.7	5.4	5.3
Unemployed:															
15 weeks and over [3]	.8	1.4	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5
State insured [4]	3.6	4.4	3.7	3.9	4.0	4.2	4.2	4.0	4.2	4.3	4.4	4.1	4.1	3.4	3.5
Labor force time lost [5]	5.4	6.4	6.4	6.5	6.5	6.6	5.6	6.3	6.5	6.3	6.5	6.4	6.4	6.4	6.1
OCCUPATION															
White-collar workers	2.8	3.5	3.5	3.7	3.7	3.6	3.2	3.5	3.5	3.4	3.4	3.4	3.6	3.6	3.3
Professional and managerial	1.7	2.9	2.5	2.6	2.5	2.5	2.0	2.3	2.3	2.2	2.4	2.5	2.5	2.6	2.2
Sales workers	3.9	4.3	4.0	4.5	4.4	5.1	4.1	4.6	4.4	4.1	3.9	3.9	4.0	4.4	4.0
Clerical workers	4.0	4.8	4.8	4.9	5.0	4.8	4.7	4.9	4.9	4.8	4.7	4.6	4.9	4.7	4.7
Blue-collar workers	6.2	7.4	7.4	7.4	7.5	7.5	7.1	7.2	7.5	7.7	7.1	7.5	7.5	7.1	7.0
Craftsmen and kindred workers	3.8	4.7	4.5	4.8	4.6	4.3	4.1	5.1	5.3	5.3	4.7	4.6	4.8	4.3	4.4
Operatives	7.1	8.3	8.5	8.5	8.7	8.7	8.2	8.1	8.3	8.3	7.8	8.2	8.2	7.9	7.5
Nonfarm laborers	9.5	10.8	11.1	10.4	10.4	11.4	11.1	9.2	10.6	11.2	10.6	11.8	11.9	11.6	11.8
Service workers	5.3	6.3	6.0	6.1	6.3	6.4	6.3	6.5	6.5	6.5	6.0	6.6	6.4	6.1	5.9
INDUSTRY															
Nonagricultural private wage and salary workers [6]	5.2	6.2	6.2	6.4	6.3	6.4	6.1	6.1	6.2	6.2	5.9	6.2	6.3	6.1	5.9
Construction	9.7	10.4	10.9	10.7	10.0	11.0	10.3	9.8	9.9	9.7	10.2	9.7	11.2	9.8	10.3
Manufacturing	5.6	6.8	6.8	7.0	7.0	6.9	6.7	6.7	6.8	6.9	6.2	6.6	6.9	6.4	6.0
Durable goods	5.7	7.0	7.2	7.3	7.5	7.3	7.0	6.8	6.9	7.0	6.4	6.7	6.7	6.7	6.1
Nondurable goods	5.4	6.5	6.4	6.5	6.4	6.4	6.2	6.5	6.8	6.8	5.8	6.3	7.1	6.0	6.0
Transportation and public utilities	3.2	3.8	4.1	3.4	3.8	4.3	3.4	3.1	3.3	3.6	4.3	4.4	4.1	4.1	3.9
Wholesale and retail trade	5.3	6.4	6.2	6.7	6.5	6.8	6.5	6.4	6.3	6.3	6.1	6.6	6.5	6.3	6.2
Finance and service industries	4.2	5.1	4.9	5.2	5.2	5.1	4.8	5.2	5.3	5.1	4.9	5.1	4.9	5.3	4.9
Government wage and salary workers	2.2	2.9	2.7	2.8	2.9	3.0	2.6	2.9	3.1	3.0	3.2	3.2	3.2	3.0	2.8
Agricultural wage and salary workers	7.5	7.9	9.5	6.7	6.4	7.7	6.3	7.8	8.8	8.5	7.0	9.6	7.5	8.6	8.3

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings.**

[2] Vietnam Era veterans are those who served after August 4, 1964; they are all classified as war veterans. Over 80 percent of Vietnam Era veterans of all ages are 20 to 29 years old. Not included in these figures are post-Korean-peacetime veterans in ages 20 to 29.

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

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

[5] Man-hours lost by the unemployed and persons on part time for economic reasons (that is, those persons who worked less than 35 hours during the survey week because of slack work, job changing during the week, material shortages, inability to find full-time work, and so on) as a percent of potentially available labor force man-hours.

[6] Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted [1]

[In thousands]

Period	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Less than 5 weeks	2,137	2,234	2,218	2,155	2,176	2,245	2,118	2,150	2,320	2,317	2,140	2,290	2,410	2,358	2,142
5 to 14 weeks	1,289	1,578	1,605	1,633	1,587	1,552	1,572	1,532	1,553	1,567	1,529	1,650	1,509	1,502	1,454
15 weeks and over	662	1,181	1,073	1,100	1,088	1,183	1,175	1,255	1,291	1,250	1,253	1,311	1,273	1,198	1,294
15 to 26 weeks	427	665	619	645	640	667	630	704	735	683	628	741	724	636	634
27 weeks and over	235	517	454	455	448	516	545	551	556	567	625	570	549	562	660
15 weeks and over as a percent of civilian labor force	.8	1.4	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5
Average (mean duration, in weeks)	8.8	11.4	10.4	10.7	11.0	11.4	12.6	11.5	11.6	12.0	12.5	11.8	11.4	11.8	12.5

[1] These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1971 issue of **Employment and Earnings.**

10. Unemployment insurance and employment service operations [1]

[All items except average benefits amounts are in thousands]

Item	1971												1972
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Employment service: [2]													
New applications for work	864	739	833	761	777	1,005	815	779	767	663	763	679	----
Nonfarm placements	257	233	295	309	308	365	315	366	353	288	317	266	----
State unemployment insurance program:													
Initial claims [3 4]	1,756	1,291	1,265	1,111	964	1,152	1,468	1,277	1,043	1,048	1,336	1,623	----
Insured unemployment [5] (average weekly volume) [6]	2,799	2,751	2,577	2,283	2,001	1,893	1,993	1,912	1,739	1,716	1,879	2,221	2,524
Rate of insured unemployment [7]	5.2	5.2	4.8	4.3	3.8	3.6	3.8	3.6	3.3	3.2	3.5	4.2	4.8
Weeks of unemployment compensated	9,667	r9,691	r10,808	9,224	p 7,431	p 7,542	6,740	6,503	5,923	r 5,336	p 5,917	p 7,317	----
Average weekly benefit amount for total unemployment	$52.83	p $52.13	r$53.00	r$52.71	r$52.32	r$52.09	$55.23	$56.08	$56.25	r $57.15	$53.31	p $53.88	----
Total benefits paid	$526,744	p$557,669	$631,032	$541,933	p$434,463	$446,691	r$425,440	r$433,636	r$377,795	p$348,281	p$387,019	p$467,913	----
Unemployment compensation for ex-servicemen: [8 6]													
Initial claims [3 6]	56	50	57	51	45	54	53	54	48	43	51	59	----
Insured unemployment [6] (average weekly volume)	127	128	128	121	113	114	120	120	106	97	105	118	133
Weeks of unemployment compensated	515	r510	r587	533	462	506	r 494	r525	p 478	401	p 416	488	----
Total benefits paid	$27,796	$28,273	$33,254	$30,757	$27,010	$30,117	r$30,047	r $31,552	p$28,944	p $28,631	p$27,828	p$28,351	----
Unemployment compensation for Federal civilian employees: [9 10]													
Initial claims [3]	15	11	12	12	10	20	16	12	12	13	14	13	----
Insured unemployment [5] (average weekly volume)	37	37	35	31	29	31	36	35	33	35	35	35	37
Weeks of unemployment compensated	152	148	167	139	119	126	137	p 157	148	p 132	p 141	p 155	----
Total benefits paid	$8,491	$8,785	$10,435	$8,912	$7,459	$7,843	r $8,392	r $9,261	$8,878	p $8,094	p $8,550	p $9,991	----
Railroad unemployment insurance:													
Applications [11]	14	38	30	85	36	45	89	98	100	48	19	c 7	8
Insured unemployment (average weekly volume)	31	22	19	20	18	13	15	32	33	27	48	33	36
Number of payments [12]	59	73	67	119	63	68	99	105	163	124	106	857	87
Average amount of benefit payment [13]	$81.56	$61.46	$70.01	$38.34	$55.53	$58.97	$46.07	$83.28	$69.35	$61.95	r $100.32	$101.32	$97.79
Total benefits paid [14]	$4,674	$4,352	$4,566	$4,364	$3,522	$4,159	$3,800	$8,698	$11,134	$7,616	$9,930	$8,891	$8,007
All programs: [15]													
Insured unemployment [6]	3,195	3,216	3,091	2,756	2,443	2,332	2,431	2,349	2,174	2,129	2,311	2,666	3,097

[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.

p = preliminary.

r = revised.

NOTE: Dashes indicate data not available.

SOURCE: U.S. Department of Labor, Office of Financial and Management Information Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board.

c = corrected.

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	70,284	619	3,435	20,167	4,429	14,639	3,733	10,906	3,564	11,229	12,202	2,758	9,444
1970	70,616	622	3,345	19,369	4,504	14,922	3,824	11,098	3,690	11,630	12,535	2,705	9,830
1971	70,699	601	3,259	18,610	4,481	15,174	3,855	11,319	3,800	11,917	12,858	2,664	10,194

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8). These series are based upon establishment reports which cover all full-time and part-time employees in nonagricultural establishments who worked during, or receive 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	Jan. 1971	Dec. 1971	Jan. 1972	State	Jan. 1971	Dec. 1971	Jan. 1972 [p]
Alabama [1]	995.2	1,028.4	1,017.5	Montana	193.0	205.4	198.9
Alaska	86.2	91.5	89.6	Nebraksa	476.1	493.7	483.9
Arizona	557.0	603.4	595.3	Nevada	198.2	207.3	203.7
Arkansas [1]	523.6	546.3	536.1	New Hampshire	248.0	257.5	252.6
California	6,759.4	7,053.0	6,911.7	New Jersey	2,561.3	2,613.9	2,555.7
Colorado [1]	751.2	793.1	786.4	New Mexico	290.6	308.0	303.3
Connecticut [1]	1,157.3	1,179.5	1,159.6	New York [1]	6,923.5	7,006.8	6,838.7
Delaware [1]	209.3	217.3	214.9	North Carolina	1,769.0	1,822.1	1,799.6
District of Columbia	684.3	694.6	690.2	North Dakota [1]	158.6	166.5	163.0
Florida	2,213.0	2,267.1	2,265.8	Ohio [1]	3,788.9	3,850.0	3,776.6
Georgia [1]	1,552.0	1,599.7	1,585.9	Oklahoma [1]	763.1	794.9	790.3
Hawaii [1]	292.7	303.0	299.7	Oregon	684.9	737.0	722.9
Idaho	204.7	219.5	213.3	Pennsylvania	4,240.2	4,319.3	4,211.9
Illinois [1]	4,215.6	4,314.0	4,216.6	Rhode Island [1]	332.3	346.7	335.5
Indiana	1,788.4	1,833.0	1,808.7	South Carolina [1]	840.3	886.4	873.1
Iowa	866.5	895.1	882.6	South Dakota	173.1	179.3	176.3
Kansas	658.9	675.4	668.5	Tennessee	1,341.8	1,382.8	1,365.7
Kentucky	919.6	953.2	934.3	Texas [1]	3,607.2	3,741.1	3,699.5
Louisiana [1]	1,027.3	1,072.7	1,060.5	Utah	354.6	379.4	371.4
Maine [1]	324.0	331.8	325.8	Vermont	143.8	148.9	146.6
Maryland [1]	1,284.1	1,347.0	1,311.4	Virginia	1,450.2	1,538.5	1,514.3
Massachusetts	2,228.4	2,286.4	2,224.7	Washington	1,028.9	1,064.4	1,042.3
Michigan	2,958.7	3,033.4	2,966.9	West Virginia			
Minnesota [1]	1,261.7	1,318.1	1,294.7	Wisconsin [1]	1,489.5	1,545.3	1,510.0
Mississippi [1]	572.7	603.9	594.7	Wyoming	102.9	111.3	108.5
Missouri [1]	1,624.8	1,644.3	1,615.8				

[1] Revised series; not strictly comparable with previously published data.

NOTE: Current State employment data by major industry division are published in **Employment and Earnings,** table B–7. For historical data in available industry detail, see the annual compendium, **Employment and Earnings, States and Areas, 1939–70** (BLS Bulletin 1370–8).

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.**

[p]=preliminary.

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

[In thousands]

Industry division and group	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL	70,616	70,699	69,450	69,782	70,309	70,738	71,355	70,452	70,542	71,184	71,379	71,638	72,034	70,661	**70,733**
MINING	622	601	606	608	617	622	634	613	625	623	522	524	605	601	**597**
CONTRACT CONSTRUCTION	3,345	3,259	2,846	2,967	3,164	3,265	3,414	3,480	3,509	3,471	3,478	3,410	3,177	2,963	**2,880**
MANUFACTURING	19,369	18,610	18,532	18,488	18,482	18,554	18,746	18,448	18,651	18,840	18,709	18,693	18,595	18,441	**18,475**
Production workers [2]	14,033	13,487	13,378	13,345	13,357	13,441	13,611	13,315	13,524	13,738	13,616	13,605	13,514	13,372	**13,408**
Durable goods	11,198	10,590	10,597	10,550	10,562	10,607	10,694	10,487	10,485	10,657	10,605	10,612	10,575	10,519	**10,541**
Production workers [2]	8,043	7,612	7,591	7,552	7,578	7,634	7,713	7,512	7,514	7,695	7,650	7,660	7,629	7,578	**7,602**
Ordnance and accessories	242.1	193.0	200.7	195.7	192.8	194.2	192.7	189.9	189.9	190.2	188.3	187.3	185.5	184.2	**182.5**
Lumber and wood products	572.5	579.8	550.7	554.2	556.4	566.9	593.3	596.4	602.3	601.5	601.8	598.1	591.8	584.2	**578.3**
Furniture and fixtures	459.9	459.1	447.3	447.4	448.1	451.3	459.3	452.1	459.1	468.3	472.8	475.8	478.3	477.5	**474.7**
Stone, clay, and glass products	638.5	628.5	604.8	608.9	622.8	630.1	641.7	638.6	643.8	644.0	637.7	636.3	627.3	620.4	**619.0**
Primary metal industries	1,314.8	1,224.6	1,260.4	1,265.7	1,273.3	1,278.8	1,283.1	1,238.9	1,164.1	1,176.0	1,165.4	1,165.2	1,168.6	1,177.3	**1,181.1**
Fabricated metal products	1,379.9	1,331.9	1,321.2	1,291.0	1,323.3	1,328.5	1,343.6	1,319.4	1,332.4	1,354.1	1,349.2	1,350.7	1,343.4	1,333.1	**1,338.3**
Machinery, except electrical	1,976.9	1,791.0	1,819.3	1,812.2	1,796.7	1,784.3	1,784.6	1,772.4	1,767.6	1,788.4	1,774.4	1,778.9	1,786.2	1,783.5	**1,799.1**
Electrical equipment	1,922.9	1,787.8	1,790.3	1,781.2	1,772.8	1,775.5	1,780.6	1,758.7	1,777.2	1,803.2	1,800.2	1,806.7	1,805.8	1,797.9	**1,801.3**
Transportation equipment	1,806.8	1,751.4	1,776.1	1,765.4	1,748.7	1,764.0	1,770.7	1,688.7	1,694.6	1,768.7	1,749.4	1,750.6	1,743.3	1,729.3	**1,721.4**
Instruments and related products	458.6	432.0	430.3	428.5	425.4	427.6	430.9	430.2	432.4	434.8	436.2	436.7	435.3	432.9	**440.4**
Miscellaneous manufacturing	425.7	410.6	395.8	399.5	401.7	406.2	413.3	402.1	421.4	428.1	429.6	425.8	409.8	398.7	**405.1**
Nondurable goods	8,171	8,020	7,935	7,938	7,920	7,947	8,052	7,961	8,166	8,183	8,104	8,081	8,020	7,922	**7,934**
Production workers [2]	5,990	5,875	5,787	5,793	5,779	5,807	5,898	5,803	6,010	6,043	5,966	5,945	5,885	5,794	**5,806**
Food and kindred products	1,781.7	1,753.5	1,682.9	1,678.6	1,674.3	1,693.2	1,749.3	1,797.0	1,882.8	1,879.3	1,803.8	1,770.8	1,734.0	1,691.6	**1,668.8**
Tobacco manufactures	81.7	73.6	75.6	70.1	69.2	68.4	67.9	61.9	77.7	84.2	80.0	76.5	73.4	70.1	**69.3**
Textile mill products	977.6	961.7	955.1	954.7	954.9	958.5	968.2	948.6	964.7	964.5	965.5	973.7	976.3	974.2	**978.5**
Apparel and other textile products	1,372.2	1,361.5	1,360.7	1,374.8	1,362.5	1,369.8	1,372.3	1,304.1	1,366.1	1,374.2	1,379.0	1,380.6	1,355.6	1,334.9	**1,359.0**
Paper and allied products	706.5	687.5	685.8	683.8	683.4	675.3	690.2	677.7	688.1	696.7	691.9	693.5	693.5	684.7	**682.3**
Printing and publishing	1,106.8	1,087.7	1,094.7	1,092.0	1,087.0	1,085.1	1,088.6	1,082.2	1,080.6	1,081.4	1,087.4	1,087.9	1,091.4	1,084.2	**1,084.7**
Chemicals and allied products	1,051.3	1,014.8	1,019.4	1,019.1	1,021.6	1,020.4	1,222.9	1,018.2	1,015.4	1,009.4	1,004.7	1,003.6	1,001.0	995.7	**999.7**
Petroleum and coal products	190.4	189.8	186.3	187.0	188.0	189.8	192.6	193.7	193.2	191.9	190.4	189.1	188.6	183.7	**182.9**
Rubber and plastics products, nec	580.4	582.0	566.0	571.2	572.9	577.7	585.0	577.4	584.5	595.9	597.4	597.0	597.8	596.7	**599.8**
Leather and leather products	322.2	307.9	309.0	306.6	306.5	308.8	314.9	300.0	313.2	305.5	304.1	308.6	308.0	305.8	**309.0**
TRANSPORTATION AND PUBLIC UTILITIES	4,504	4,481	4,454	4,466	4,469	4,500	4,549	4,534	4,486	4,509	4,455	4,447	4,469	4,439	**4,427**
WHOLESALE AND RETAIL TRADE	14,922	15,174	14,721	14,789	14,974	15,071	15,192	15,132	15,151	15,242	15,327	15,537	16,089	15,270	**15,166**
Wholesale trade	3,824	3,855	3,799	3,806	3,808	3,823	3,860	3,877	3,886	3,880	3,896	3,905	3,915	3,877	**3,882**
Retail trade	11,098	11,319	10,922	10,983	11,166	11,248	11,332	11,255	11,265	11,362	11,431	11,632	12,174	11,393	**11,284**
FINANCE, INSURANCE, AND REAL ESTATE	3,690	3,800	3,715	3,735	3,758	3,780	3,837	3,867	3,865	3,829	3,826	3,836	3,841	3,837	**3,847**
SERVICES	11,630	11,917	11,667	11,758	11,867	11,953	12,050	12,040	11,994	11,986	12,020	12,032	12,029	11,941	**12,039**
Hotels and other lodging places	761.9	774.2	716.7	726.2	747.7	764.1	810.7	878.1	882.9	812.1	759.0	736.0	746.8	750.4	-------
Personal services	992.3	946.1	948.9	952.7	949.0	958.6	958.4	939.6	932.2	933.3	939.9	946.4	935.3	916.6	-------
Medical and other health services	3,052.4	3,239.6	3,162.9	3,179.5	3,188.7	3,206.0	3,254.0	3,270.4	3,273.3	3,279.8	3,294.2	3,305.7	3,312.8	3,325.6	-------
Educational services	1,136.2	1,158.6	1,211.9	1,227.7	1,218.9	1,213.7	1,109.4	998.3	973.5	1,109.3	1,210.3	1,230.2	1,220.5	1,193.2	-------
GOVERNMENT	12,535	12,858	12,909	12,971	12,978	12,993	12,933	12,338	12,261	12,684	13,042	13,159	13,229	13,169	**13,302**
Federal	2,705	2,664	2,646	2,649	2,662	2,659	2,674	2,688	2,690	2,666	2,659	2,655	2,684	2,646	**2,651**
State and local	9,830	10,194	10,263	10,322	10,316	10,334	10,259	9,650	9,571	10,018	10,383	10,504	10,545	10,523	**10,651**

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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

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

p=preliminary.

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

[In thousands]

Industry division and group	1971											1972	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL	70,391	70,480	70,599	70,769	70,657	70,531	70,529	70,853	70,848	71,042	71,185	71,603	71,686
MINING	622	622	623	622	619	597	609	616	521	525	607	615	613
CONTRACT CONSTRUCTION	3,198	3,264	3,282	3,275	3,255	3,228	3,219	3,250	3,290	3,320	3,245	3,318	3,236
MANUFACTURING	18,684	18,609	18,639	18,702	18,608	18,533	18,457	18,616	18,560	18,603	18,566	18,611	18,627
Production workers [2]	13,507	13,448	13,502	13,569	13,496	13,440	13,371	13,515	13,462	13,505	13,474	13,523	13,539
Durable goods	10,642	10,571	10,598	10,651	10,598	10,552	10,485	10,597	10,561	10,572	10,548	10,573	10,588
Production workers [2]	7,625	7,569	7,612	7,667	7,627	7,594	7,534	7,630	7,600	7,614	7,594	7,625	7,640
Ordnance and accessories	200	195	194	196	193	191	191	190	189	186	184	183	182
Lumber and wood products	565	566	567	570	574	579	583	591	597	601	600	604	594
Furniture and fixtures	449	450	452	457	458	461	456	465	467	470	474	478	476
Stone, clay, and glass products	624	622	628	633	629	625	627	633	631	634	632	640	638
Primary metal industries	1,260	1,264	1,270	1,272	1,259	1,226	1,156	1,182	1,187	1,178	1,176	1,183	1,181
Fabricated metal products	1,328	1,298	1,333	1,339	1,333	1,335	1,331	1,346	1,341	1,339	1,331	1,336	1,345
Machinery, except electrical	1,810	1,796	1,784	1,783	1,769	1,770	1,775	1,794	1,791	1,797	1,793	1,785	1,790
Electrical equipment	1,792	1,787	1,789	1,793	1,783	1,773	1,772	1,791	1,793	1,791	1,793	1,796	1,803
Transportation equipment	1,771	1,753	1,745	1,768	1,759	1,751	1,754	1,758	1,720	1,732	1,719	1,716	1,716
Instruments and related products	432	429	426	429	430	431	430	435	437	436	434	434	442
Miscellaneous manufacturing	411	411	410	411	411	410	410	412	408	408	412	418	421
Nondurable goods	8,042	8,038	8,041	8,051	8,010	7,981	7,972	8,019	7,999	8,031	8,018	8,038	8,039
Production workers [2]	5,882	5,879	5,890	5,902	5,869	5,846	5,837	5,885	5,862	5,891	5,880	5,898	5,899
Food and kindred products	1,764	1,760	1,753	1,758	1,751	1,762	1,748	1,755	1,728	1,750	1,748	1,760	1,749
Tobacco manufactures	79	77	79	78	77	69	70	72	69	71	69	71	72
Textile mill products	959	958	958	963	956	959	959	960	963	970	974	981	982
Apparel and other textile products	1,359	1,368	1,374	1,373	1,357	1,349	1,351	1,361	1,365	1,370	1,357	1,352	1,358
Paper and allied products	691	689	690	681	682	676	681	694	693	691	690	688	687
Printing and publishing	1,096	1,092	1,088	1,091	1,088	1,083	1,080	1,082	1,085	1,084	1,084	1,089	1,087
Chemicals and allied products	1,026	1,021	1,021	1,024	1,016	1,008	1,004	1,008	1,008	1,008	1,005	1,004	1,006
Petroleum and coal products	192	191	190	190	189	188	188	190	189	189	191	188	188
Rubber and plastics, products, nec	567	574	577	582	583	584	582	591	594	592	594	599	601
Leather and leather products	309	308	311	311	311	303	309	306	305	306	306	306	309
TRANSPORTATION AND PUBLIC UTILITIES	4,526	4,520	4,505	4,518	4,500	4,476	4,428	4,460	4,442	4,434	4,465	4,511	4,499
WHOLESALE AND RETAIL TRADE	15,059	15,074	15,107	15,148	15,135	15,158	15,223	15,273	15,270	15,278	15,315	15,451	15,514
Wholesale trade	3,845	3,852	3,854	3,886	3,837	3,835	3,844	3,865	3,873	3,874	3,884	3,908	3,929
Retail trade	11,214	11,222	11,253	11,282	11,298	11,323	11,379	11,408	11,397	11,404	11,431	11,543	11,585
FINANCE, INSURANCE, AND REAL ESTATE	3,749	3,758	3,769	3,788	3,807	3,806	3,804	3,821	3,834	3,851	3,860	3,876	3,882
SERVICES	11,809	11,841	11,843	11,858	11,895	11,921	11,946	11,962	11,996	12,044	12,089	12,135	12,185
Hotels and other lodging places	766	766	768	768	775	755	760	796	784	785	801	813	----
Personal services	962	960	960	954	943	933	935	938	937	941	932	927	----
Medical and other health services	3,169	3,186	3,198	3,222	3,231	3,241	3,260	3,283	3,297	3,306	3,323	3,336	----
Educational services	1,153	1,168	1,168	1,167	1,155	1,142	1,139	1,160	1,165	1,168	1,165	1,160	----
GOVERNMENT	12,744	12,792	12,831	12,858	12,838	12,812	12,843	12,855	12,935	12,987	13,038	13,086	13,130
Federal	2,662	2,662	2,667	2,667	2,640	2,643	2,650	2,674	2,675	2,669	2,669	2,667	2,667
State and local	10,082	10,130	10,164	10,191	10,198	10,169	10,193	10,181	10,260	10,318	10,369	10,419	10,463

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

[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.

NOTE: These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of **Employment and Earnings.**

p=preliminary.

15. Labor turnover rates in manufacturing, 1962 to date [1]

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Total accessions												
1962	4.1	4.1	3.6	3.8	4.0	4.3	5.0	4.6	5.1	4.9	3.9	3.0	2.4
1963	3.9	3.6	3.3	3.5	3.9	3.9	4.8	4.3	4.8	4.8	3.9	2.9	2.5
1964	4.0	3.6	3.4	3.7	3.8	3.9	5.1	4.4	5.1	4.8	4.0	3.2	2.6
1965	4.3	3.8	3.5	4.0	3.8	4.1	5.6	4.5	5.4	5.5	4.5	3.9	3.1
1966	5.0	4.6	4.2	4.9	4.6	5.1	6.7	5.1	6.4	6.1	5.1	3.9	2.9
1967	4.4	4.3	3.6	3.9	3.9	4.6	5.9	4.7	5.5	5.3	4.7	3.7	2.8
1968	4.6	4.2	3.8	4.0	4.3	4.7	5.9	5.0	5.8	5.7	5.1	3.9	3.1
1969	4.7	4.6	3.9	4.4	4.5	4.8	6.6	5.1	5.6	5.9	4.9	3.6	2.9
1970	4.0	4.0	3.6	3.7	3.7	4.2	5.4	4.4	5.1	4.7	3.8	3.0	2.4
1971	3.9	3.5	3.1	3.5	3.7	3.9	4.9	4.0	5.3	4.8	3.8	3.3	2.5
1972		p 4.0											
	New hires												
1962	2.5	2.2	2.1	2.2	2.4	2.8	3.5	2.9	3.2	3.1	2.5	1.8	1.2
1963	2.4	1.9	1.8	2.0	2.3	2.5	3.3	2.7	3.2	3.2	2.6	1.8	1.4
1964	2.6	2.0	2.0	2.2	2.4	2.5	3.6	2.9	3.4	3.5	2.8	2.2	1.6
1965	3.1	2.4	2.4	2.8	2.6	3.0	4.3	3.2	3.9	4.0	3.5	2.9	2.2
1966	3.8	3.2	3.1	3.7	3.6	4.1	5.6	3.9	4.8	4.7	4.2	3.1	2.1
1967	3.3	3.0	2.7	2.8	2.8	3.3	4.6	3.3	4.0	4.1	3.7	2.8	2.0
1968	3.5	3.0	2.7	2.9	3.2	3.6	4.7	3.7	4.3	4.6	4.0	2.9	2.2
1969	3.7	3.3	3.0	3.4	3.5	3.8	5.4	3.9	4.3	4.8	4.0	2.8	2.1
1970	2.8	2.9	2.5	2.6	2.6	2.8	3.9	3.0	3.5	3.4	2.7	1.9	1.4
1971	2.5	2.0	1.9	2.2	2.3	2.6	3.5	2.7	3.4	3.2	2.7	2.2	1.6
1972		p 2.6											
	Total separations												
1962	4.1	3.9	3.4	3.6	3.6	3.8	3.8	4.4	5.1	5.0	4.4	4.0	3.8
1963	3.9	4.0	3.2	3.5	3.6	3.6	3.4	4.1	4.8	4.9	4.1	3.9	3.7
1964	3.9	4.0	3.3	3.5	3.5	3.6	3.5	4.4	4.3	5.1	4.2	3.6	3.7
1965	4.1	3.7	3.1	3.4	3.7	3.6	3.6	4.3	5.1	5.6	4.5	3.9	4.1
1966	4.6	4.0	3.6	4.1	4.3	4.3	4.4	5.3	5.8	6.6	4.8	4.3	4.2
1967	4.6	4.5	4.0	4.6	4.3	4.2	4.3	4.8	5.3	6.2	4.7	4.0	3.9
1968	4.6	4.4	3.9	4.1	4.1	4.3	4.1	5.0	6.0	6.3	5.0	4.1	3.8
1969	4.9	4.5	4.0	4.4	4.5	4.6	4.6	5.3	6.2	6.6	5.4	4.3	4.2
1970	4.8	4.8	4.3	4.4	4.8	4.6	4.4	5.3	5.6	6.0	5.3	4.3	4.1
1971	4.2	4.2	3.5	3.7	4.0	3.7	3.8	4.8	5.5	5.3	4.3	3.7	3.8
1972		p 4.0											
	Quits												
1962	1.4	1.1	1.1	1.2	1.3	1.5	1.5	1.4	2.1	2.4	1.5	1.1	.8
1963	1.4	1.1	1.0	1.2	1.3	1.4	1.4	1.4	2.1	2.4	1.5	1.1	.8
1964	1.5	1.2	1.1	1.2	1.3	1.5	1.4	1.5	2.1	2.7	1.7	1.2	1.0
1965	1.9	1.4	1.3	1.5	1.7	1.7	1.7	1.8	2.6	3.5	2.2	1.7	1.4
1966	2.6	1.9	1.8	2.3	2.5	2.5	2.5	2.5	3.6	4.5	2.8	2.1	1.7
1967	2.3	2.1	1.9	2.1	2.2	2.2	2.3	2.1	3.2	4.0	2.5	1.9	1.5
1968	2.5	2.0	1.9	2.1	2.2	2.4	2.3	2.4	3.8	4.2	2.8	2.1	1.6
1969	2.7	2.3	2.1	2.4	2.6	2.7	2.6	2.7	4.0	4.4	3.0	2.1	1.6
1970	2.1	2.1	1.9	2.0	2.1	2.1	2.1	2.1	3.0	3.3	2.1	1.4	1.2
1971	1.8	1.5	1.3	1.5	1.6	1.7	1.8	1.8	2.8	2.9	1.9	1.5	1.2
1972		p 1.7											
	Layoffs												
1962	2.0	2.1	1.7	1.6	1.6	1.6	1.6	2.2	2.2	1.9	2.2	2.3	2.5
1963	1.8	2.2	1.6	1.7	1.6	1.5	1.4	2.0	1.9	1.8	1.9	2.1	2.3
1964	1.7	2.0	1.6	1.6	1.4	1.4	1.3	2.1	1.4	1.5	1.8	1.7	2.1
1965	1.4	1.6	1.2	1.2	1.3	1.1	1.1	1.8	1.6	1.3	1.4	1.5	1.9
1966	1.2	1.3	1.0	1.0	1.0	.9	1.0	2.0	1.1	1.0	1.1	1.3	1.7
1967	1.4	1.5	1.3	1.5	1.3	1.1	1.1	1.9	1.2	1.2	1.3	1.3	1.6
1968	1.2	1.5	1.2	1.1	1.0	1.0	.9	1.8	1.3	1.1	1.2	1.2	1.4
1969	1.2	1.2	1.0	1.0	.9	.9	1.0	1.6	1.1	1.1	1.3	1.3	1.8
1970	1.8	1.7	1.5	1.6	1.7	1.5	1.5	2.3	1.7	1.7	2.2	2.1	2.2
1971	1.6	1.9	1.4	1.4	1.4	1.2	1.2	2.1	1.8	1.5	1.5	1.5	1.8
1972		p 1.5											

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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 because (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		
	Jan. 1971	Dec. 1971	Jan. 1972 p	Jan. 1971	Dec. 1971	Jan. 1972 p	Jan. 1971	Dec. 1971	Jan. 1972 p	Jan. 1971	Dec. 1971	Jan. 1972 p	Jan. 1971	Dec. 1971	Jan. 1972 p
MANUFACTURING	3.5	2.5	4.0	2.0	1.6	2.6	4.2	3.8	4.0	1.5	1.2	1.7	1.9	1.8	1.5
Seasonally adjusted [2]	3.8	3.9	4.3	2.3	2.7	3.0	4.4	4.4	4.2	1.8	1.9	2.0	1.7	1.4	1.3
Durable goods	3.2	2.3	3.9	1.6	1.4	2.3	4.0	3.3	3.7	1.1	1.0	1.4	2.0	1.6	1.4
Ordnance and accessories	2.9	1.1	------	.6	.6	------	5.0	2.1	------	.7	.5	------	3.5	1.2	------
Lumber and wood products	4.7	3.4	5.4	3.1	2.7	4.0	4.9	5.4	5.1	2.2	2.2	2.8	1.8	2.4	1.4
Furniture and fixtures	4.5	3.4	6.0	3.5	2.8	5.1	5.1	3.9	5.2	2.3	2.2	3.4	1.9	.8	.8
Stone, clay, and glass products	3.2	2.3	3.8	1.8	1.6	2.4	5.1	4.3	4.6	1.5	1.3	1.6	2.7	2.3	2.1
Primary metal industries	3.6	3.0	4.1	1.4	.8	1.4	2.9	3.0	2.9	.8	.5	.8	1.2	1.7	1.2
Fabricated metal products	3.4	2.5	------	1.9	1.5	------	4.3	3.7	------	1.3	1.1	------	2.1	1.9	------
Machinery except electrical	2.4	1.8	3.2	1.2	1.1	2.0	3.3	2.2	2.5	.8	.7	1.0	1.7	.8	.8
Electrical equipment	2.6	2.0	------	1.2	1.2	------	4.3	2.5	------	1.1	.9	------	2.1	.9	------
Transportation equipment	3.3	2.0	------	1.5	1.0	------	4.0	3.1	------	.9	.7	------	2.3	1.8	------
Instruments and related products	2.2	1.9	3.1	1.4	1.4	2.2	3.4	2.6	2.9	1.1	.9	1.3	1.3	.7	.8
Miscellaneous manufacturing	4.6	2.8	6.0	2.6	2.0	3.6	5.4	8.8	5.3	1.8	1.9	2.2	2.6	6.1	2.2
Nondurable goods	3.9	2.8	4.3	2.4	1.8	2.9	4.5	4.3	4.5	1.9	1.6	2.1	1.8	2.1	1.5
Food and kindred products	4.6	3.7	4.9	2.8	2.3	2.9	5.7	6.9	5.8	2.1	1.9	2.3	2.8	4.3	2.7
Tobacco manufactures	3.1	2.6	2.7	1.5	1.6	1.6	6.1	4.8	5.8	1.3	1.1	1.3	4.3	3.2	3.5
Textile mill products	4.6	3.5	5.6	3.3	2.6	4.3	5.0	4.2	5.3	2.7	2.5	3.3	1.2	.8	.9
Apparel and other textile products	5.3	3.1	5.8	3.0	1.9	3.8	5.5	5.6	5.7	2.4	2.0	3.0	2.3	3.0	1.9
Paper and allied products	2.5	1.8	2.6	1.6	1.2	1.7	3.3	2.8	3.1	1.3	.9	1.2	1.2	1.2	1.2
Printing and publishing	2.9	2.1	3.3	2.0	1.5	2.5	3.4	2.7	3.2	1.6	1.2	1.6	1.1	1.0	1.0
Chemicals and allied products	2.0	1.2	2.1	1.2	.8	1.4	2.6	1.8	2.7	.9	.6	.8	1.0	.7	.8
Petroleum and coal products	1.9	.9	2.0	1.4	.7	1.3	2.0	2.2	1.6	.7	.4	.5	.5	1.0	.4
Rubber and plastics products, nec	3.7	2.4	4.4	2.1	1.7	2.9	4.3	3.3	3.9	1.6	1.3	1.9	1.8	1.3	1.1
Leather and leather products	5.8	4.7	6.9	3.7	3.2	4.7	6.1	6.0	5.9	2.7	2.5	3.3	2.4	2.6	1.4

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data, will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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 because (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.

[2] These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of **Employment and Earnings**.

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

17. Job vacancies in manufacturing

Industry	Annual average		1971												1972
	1970	1971	Jan.	Feb.	Mar.	Apr.	May	June	July [2]	Aug.	Sept.	Oct.	Nov.	Dec	Jan. p
Job vacancies in manufacturing (number in thousands)	132	88	81	80	83	93	94	90	90	106	98	90	79	78	87
JOB VACANCY RATES [1]															
Manufacturing	0.7	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.5
Durable goods industries	.6	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.4	.4	.4	.4
Nondurable goods industries	.7	.6	.5	.5	.5	.6	.6	.6	.6	.6	.6	.5	.5	.5	.5
Selected durable goods industries:															
Primary metal industries	.5	.2	.3	.3	.3	.4	.3	.2	.2	.2	.2	.2	.1	.1	.2
Machinery, except electrical	.7	.4	.4	.4	.4	.4	.4	.4	.4	.4	.5	.4	.4	.4	.5
Electrical equipment and supplies	.7	.5	.4	.4	.4	.5	.5	.5	.5	.6	.5	.6	.5	.5	.5
Transportation equipment	.5	.4	.4	.3	.4	.4	.4	.4	.5	.6	.5	.4	.4	.3	.5
Instruments and related products	1.0	.7	.6	.5	.6	.8	.7	.9	.8	.8	.8	.7	.6	.6	.6
Selected nondurable goods industries:															
Textile mill products	.9	.8	.7	.6	.8	.8	.9	.9	.8	1.0	.9	.9	.8	.8	.8
Apparel and other textile products	1.4	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.2	1.2	1.0	1.1	1.2
Printing and publishing	.6	.4	.4	.4	.4	.4	.3	.3	.3	.4	.3	.4	.3	.3	.4
Chemicals and allied products	.7	.4	.4	.4	.5	.4	.5	.4	.4	.4	.4	.4	.3	.3	.4

[1] Computed by dividing the total number of job vacancies by the sum of employment plus the total number of job vacancies and multiplying the quotient by 100.

NOTE: Data for the period prior to July 1971 have been revised to reflect current benchmark employment levels and are comparable to the data for the months after that date. For additional detail on this series, see **Employment and Earnings,** tables E–1, E–2, and E–3.

p = preliminary.

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

Year	Average			Average			Average			Average		
	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	155.23	43.0	3.61	181.54	37.9	4.79	129.51	40.6	3.19
1970	119.46	37.1	3.22	163.97	42.7	3.84	196.35	37.4	5.25	133.73	39.8	3.36
1971	126.91	37.0	3.43	171.72	42.4	4.05	213.36	37.3	5.72	142.44	39.9	3.57
	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	148.15	40.7	3.64	91.14	35.6	2.56	108.70	37.1	2.93	90.57	34.7	2.61
1970	155.93	40.5	3.85	95.66	35.3	2.71	113.34	36.8	3.08	96.66	34.4	2.81
1971	169.24	40.2	4.21	100.74	35.1	2.87	121.36	37.0	3.28	102.26	34.2	2.99

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States 1909–71** (BLS Bulletin 1312–8).

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.

19. 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	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL PRIVATE	37.1	37.0	36.6	36.8	36.7	36.8	37.3	37.3	37.4	37.0	37.0	37.0	37.3	36.7	**36.8**
MINING	42.7	42.4	41.9	42.1	42.3	42.4	42.6	42.6	42.3	42.1	42.8	42.3	42.8	42.4	**42.2**
CONTRACT CONSTRUCTION	37.4	37.3	35.5	37.1	37.0	37.0	38.0	38.1	38.3	36.9	38.2	37.9	36.5	35.8	**36.0**
MANUFACTURING	39.8	39.9	39.4	39.7	39.5	40.0	40.2	39.8	39.8	39.8	40.0	40.2	40.7	39.8	**40.0**
Overtime hours	3.0	2.9	2.7	2.7	2.7	2.9	3.0	2.9	3.0	3.1	3.1	3.1	3.2	2.8	**2.9**
Durable goods	40.3	40.4	39.9	40.4	40.0	40.5	40.8	40.1	40.0	40.0	40.5	40.7	41.4	40.3	**40.6**
Overtime hours	2.9	2.9	2.6	2.7	2.6	2.8	3.0	2.7	2.8	3.0	3.0	3.0	3.2	2.7	**2.8**
Ordnance and accessories	40.6	41.7	41.2	41.8	41.3	41.5	41.8	41.3	41.7	41.9	41.8	42.0	42.4	42.1	**42.7**
Lumber and wood products	39.7	40.3	39.3	39.9	40.1	40.2	40.9	40.4	40.5	40.4	41.0	40.6	40.8	39.9	**40.1**
Furniture and fixtures	39.2	39.8	38.7	39.4	38.9	39.5	40.1	39.7	40.4	40.0	40.4	40.4	40.9	39.9	**39.9**
Stone, clay, and glass products	41.2	41.6	40.6	41.3	41.1	41.6	42.3	42.0	42.3	41.9	42.1	41.9	41.6	40.9	**41.3**
Primary metal industries	40.5	40.4	40.5	40.8	41.1	41.1	41.3	40.7	38.8	39.5	39.7	39.9	41.0	40.5	**41.0**
Fabricated metal products	40.7	40.3	39.8	40.1	39.8	40.7	40.9	40.3	40.3	39.9	40.3	40.6	41.3	40.2	**40.5**
Machinery, except electrical	41.1	40.6	40.1	40.5	40.0	40.5	40.7	40.3	40.3	40.6	40.8	41.1	41.9	41.0	**41.4**
Electrical equipment and supplies	39.9	39.9	39.2	39.7	39.4	39.8	40.1	39.6	40.0	40.0	40.1	40.4	40.9	39.9	**39.9**
Transportation equipment	40.3	40.7	40.8	41.3	39.8	41.2	41.5	39.4	39.3	39.1	41.0	41.1	42.5	40.4	**40.5**
Instruments and related products	40.1	39.8	39.3	39.7	39.5	39.8	39.8	39.5	39.6	40.0	40.1	40.5	40.8	40.3	**39.9**
Miscellaneous manufacturing industries	38.7	38.9	38.0	38.8	38.5	38.8	38.8	38.6	39.2	38.9	39.3	39.5	39.5	38.7	**39.1**
Nondurable goods	39.1	39.3	38.7	38.9	38.9	39.2	39.4	39.4	39.5	39.5	39.4	39.6	39.8	39.1	**39.3**
Overtime hours	3.0	3.0	2.7	2.7	2.7	2.9	3.1	3.0	3.2	3.4	3.2	3.1	3.1	2.9	**2.9**
Food and kindred products	40.5	40.3	40.0	39.9	39.8	40.3	40.5	40.6	40.7	40.9	40.1	40.1	40.6	39.7	**39.6**
Tobacco manufactures	37.8	37.0	35.6	36.8	36.7	37.9	36.8	39.3	37.4	37.8	36.0	35.7	36.0	34.0	**33.2**
Textile mill products	39.9	40.6	40.0	40.2	40.0	40.6	41.0	40.1	40.8	40.6	41.0	41.4	41.5	40.8	**41.0**
Apparel and other textile products	35.3	35.5	34.7	35.4	35.0	35.5	35.5	35.8	36.0	35.5	35.9	36.3	35.9	35.4	**35.9**
Paper and allied products	41.9	42.1	41.4	41.6	41.9	42.0	42.3	42.4	42.5	42.2	42.3	42.4	42.8	41.9	**42.4**
Printing and publishing	37.7	37.6	37.1	37.5	37.3	37.6	37.7	37.6	37.7	37.7	37.6	37.6	38.0	37.1	**37.3**
Chemicals and allied products	41.6	41.6	41.3	41.4	41.9	41.5	41.7	41.3	41.3	42.1	41.5	41.6	41.9	41.5	**41.7**
Petroleum and coal products	42.7	42.4	42.3	41.8	42.3	42.5	42.6	43.0	42.6	42.8	42.6	42.1	42.3	41.8	**42.2**
Rubber and plastics products, nec	40.3	40.3	39.6	39.9	39.9	40.3	40.7	40.1	40.3	40.5	40.6	40.8	41.2	40.5	**40.7**
Leather and leather products	37.2	37.7	36.9	37.1	37.2	37.8	38.1	38.2	37.6	36.9	37.7	38.4	38.7	38.3	**38.9**
TRANSPORTATION AND PUBLIC UTILITIES	40.5	40.2	40.4	40.2	40.2	39.8	40.8	38.4	40.7	40.8	40.5	40.6	40.6	40.0	**40.3**
WHOLESALE AND RETAIL TRADE	35.3	35.1	34.6	34.7	34.8	34.8	35.4	36.1	36.0	35.2	35.0	34.9	35.5	34.7	**34.8**
Wholesale trade	40.0	39.8	39.4	39.6	39.4	39.6	40.0	39.9	39.9	39.7	39.8	39.8	40.3	39.7	**39.7**
Retail trade	33.8	33.7	33.1	33.1	33.3	33.3	34.0	34.8	34.7	33.7	33.5	33.4	34.1	33.2	**33.2**
FINANCE, INSURANCE, AND REAL ESTATE	36.8	37.0	36.8	36.9	36.9	36.9	37.0	37.1	37.3	36.9	37.0	37.0	37.0	37.1	**37.1**
SERVICES	34.4	34.2	34.0	34.0	34.0	33.9	34.2	34.8	34.7	34.1	34.1	34.0	34.2	33.9	**34.1**

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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.

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

p = preliminary.

20. 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	1971											1972	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL PRIVATE	37.0	37.0	37.0	36.9	37.1	36.9	36.9	36.7	37.0	37.1	37.2	37.0	37.2
MINING	42.6	42.8	42.2	42.4	42.3	42.2	42.0	41.9	42.5	42.3	42.6	42.9	42.7
CONTRACT CONSTRUCTION	36.8	37.8	37.1	36.8	37.2	37.1	37.1	35.7	37.6	39.0	36.8	37.4	37.3
MANUFACTURING	39.8	39.8	39.8	40.0	40.0	40.0	39.8	39.5	39.8	40.1	40.3	40.0	40.4
Overtime hours	2.8	2.9	2.9	3.0	2.9	3.0	2.9	2.8	3.0	3.0	3.1	2.9	3.1
Durable goods	40.3	40.4	40.3	40.5	40.6	40.4	40.0	39.7	40.3	40.6	40.9	40.5	41.0
Overtime hours	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.7	2.8	2.9	3.0	2.8	3.0
Ordnance and accessories	41.4	41.9	41.5	41.5	41.6	41.9	41.9	41.7	41.8	41.9	42.0	41.6	42.9
Lumber and wood products	39.8	39.9	40.1	39.8	40.4	40.5	40.2	40.1	40.7	40.8	40.8	40.8	40.6
Furniture and fixtures	39.6	39.7	39.5	39.9	39.9	40.1	39.9	39.4	39.7	40.0	39.9	40.5	40.8
Stone, clay, and glass products	41.3	41.7	41.1	41.4	42.0	41.8	41.8	41.4	41.8	41.9	41.6	41.8	42.1
Primary metal industries	40.6	40.8	41.0	41.0	41.0	40.6	38.8	39.5	40.1	40.1	41.0	40.4	41.1
Fabricated metal products	40.4	40.3	40.1	40.7	40.6	40.7	40.2	39.3	40.1	40.4	40.9	40.5	41.1
Machinery, except electrical	40.1	40.2	40.0	40.5	40.7	40.7	40.8	40.5	40.8	41.1	41.3	41.0	41.4
Electrical equipment and supplies	39.7	39.7	39.8	39.9	39.9	40.1	40.0	39.6	39.9	40.1	40.3	40.0	40.4
Transportation equipment	41.5	41.7	40.6	41.1	41.4	39.5	39.9	38.5	40.5	40.5	41.7	40.5	41.2
Instruments and related products	39.7	39.7	39.7	40.0	39.7	39.8	39.8	39.7	39.9	40.2	40.4	40.5	40.3
Miscellaneous manufacturing industries	38.4	38.8	38.6	38.9	38.7	39.2	39.2	38.7	38.9	39.1	39.2	39.0	39.5
Nondurable goods	39.1	39.1	39.2	39.4	39.3	39.3	39.3	39.1	39.3	39.5	39.5	39.4	39.7
Overtime hours	2.9	2.9	2.9	3.0	3.1	3.0	3.1	3.1	3.0	3.0	3.0	3.1	3.1
Food and kindred products	40.7	40.5	40.5	40.5	40.4	40.5	40.5	40.5	40.0	40.0	40.3	40.0	40.0
Tobacco manufactures	36.1	38.0	37.5	38.3	36.2	39.6	37.1	36.6	34.7	35.6	35.6	34.7	33.7
Textile mill products	40.2	40.3	40.4	40.8	40.8	40.3	40.7	40.4	40.8	41.1	41.0	41.3	41.2
Apparel and other textile products	35.0	35.2	35.1	35.5	35.4	35.8	35.7	35.4	36.0	36.2	35.9	35.8	36.2
Paper and allied products	41.8	41.9	42.3	42.1	42.3	42.4	42.4	41.9	42.0	42.3	42.3	42.1	42.8
Printing and publishing	37.4	37.5	37.5	37.7	37.7	37.6	37.5	37.4	37.5	37.6	37.5	37.5	37.6
Chemicals and allied products	41.5	41.4	41.7	41.5	41.7	41.4	41.5	42.1	41.5	41.4	41.7	41.7	41.9
Petroleum and coal products	42.9	41.9	41.7	41.7	42.3	42.6	43.4	42.9	42.4	41.8	42.7	42.3	42.8
Rubber and plastics products, nec	39.9	40.3	40.3	40.4	40.7	40.3	40.1	40.0	40.3	40.6	40.9	40.7	41.0
Leather and leather products	36.9	37.4	38.3	37.8	37.5	37.7	37.6	37.3	37.9	38.3	37.9	38.1	38.9
TRANSPORTATION AND PUBLIC UTILITIES	40.6	40.6	40.6	40.0	40.7	38.0	40.5	40.6	40.3	40.4	40.5	40.2	40.5
WHOLESALE AND RETAIL TRADE	35.1	35.0	35.2	35.1	35.2	35.3	35.1	35.1	35.2	35.2	35.3	35.1	35.3
Wholesale trade	39.7	39.7	39.6	39.8	39.9	39.6	39.7	39.7	39.8	39.9	40.0	39.8	40.0
Retail trade	33.6	33.5	33.7	33.7	33.7	33.8	33.6	33.6	33.8	33.7	33.9	33.7	33.7
FINANCE, INSURANCE, AND REAL ESTATE	36.8	36.9	36.9	37.0	37.0	37.1	37.3	37.0	36.9	36.9	37.0	37.1	37.1
SERVICES	34.2	34.0	34.1	34.1	34.1	34.4	34.3	34.2	34.2	34.1	34.2	34.1	34.3

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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.

NOTE: These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of **Employment and Earnings.**

p=preliminary.

21. 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	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL PRIVATE	$3.22	$3.43	$3.35	$3.36	$3.38	$3.41	$3.42	$3.43	$3.45	$3.49	$3.49	$3.48	$3.51	$3.54	$3.54
MINING	3.84	4.05	4.00	4.01	40.4	4.04	4.04	4.05	4.10	4.15	3.92	3.92	4.27	4.31	4.27
CONTRACT CONSTRUCTION	5.25	5.72	5.56	5.54	5.55	5.65	5.63	5.68	5.75	5.86	5.90	5.90	5.93	5.98	5.98
MANUFACTURING	3.36	3.57	3.51	3.52	3.54	3.55	3.57	3.57	3.56	3.60	3.60	3.60	3.69	3.70	3.71
Durable goods	3.56	3.80	3.74	3.75	3.76	3.78	3.80	3.79	3.79	3.83	3.82	3.83	3.93	3.94	3.95
Ordnance and accessories	3.61	3.85	3.77	3.77	3.80	3.81	3.85	3.89	3.88	3.90	3.91	3.88	3.98	4.00	4.05
Lumber and wood products	2.96	3.14	3.06	3.05	3.07	3.12	3.17	3.19	3.19	3.21	3.21	3.20	3.19	3.19	3.16
Furniture and fixtures	2.77	2.90	2.84	2.85	2.86	2.88	2.90	2.91	2.94	2.95	2.93	2.93	2.98	2.98	2.98
Stone, clay and glass products	3.40	3.66	3.55	3.57	3.59	3.63	3.67	3.70	3.73	3.75	3.73	3.71	3.74	3.75	3.77
Primary metal industries	3.93	4.23	4.09	4.12	4.17	4.15	4.21	4.19	4.29	4.35	4.35	4.36	4.50	4.54	4.57
Fabricated metal products	3.53	3.74	3.67	3.66	3.70	3.74	3.75	3.74	3.75	3.77	3.77	3.78	3.87	3.88	3.88
Machinery, except electrical	3.77	3.99	3.90	3.94	3.95	3.97	3.99	4.00	4.02	4.04	4.04	4.04	4.16	4.17	4.18
Electrical equipment and supplies	3.28	3.50	3.43	3.46	3.47	3.49	3.49	3.51	3.50	3.52	3.51	3.52	3.60	3.61	3.61
Transportation equipment	4.06	4.44	4.44	4.42	4.40	4.43	4.43	4.39	4.37	4.42	4.44	4.44	4.62	4.60	4.60
Instruments and related products	3.35	3.53	3.48	3.49	3.49	3.52	3.52	3.55	3.55	3.57	3.55	3.56	3.62	3.64	3.63
Miscellaneous manufacturing industries	2.82	2.96	2.94	2.93	2.94	2.94	2.95	2.94	2.95	2.96	2.96	2.97	3.05	3.06	3.06
Nondurable goods	3.08	3.26	3.20	3.21	3.23	3.24	3.26	3.29	3.27	3.31	3.29	3.29	3.36	3.38	3.39
Food and kindred products	3.16	3.38	3.32	3.34	3.37	3.38	3.38	3.39	3.34	3.38	3.38	3.40	3.51	3.51	3.51
Tobacco manufactures	2.92	3.15	3.02	3.11	3.24	3.30	3.30	3.33	3.19	3.03	3.02	3.08	3.29	3.32	3.36
Textile mill products	2.45	2.57	2.54	2.55	2.55	2.56	2.56	2.56	2.57	2.58	2.59	2.59	2.62	2.68	2.71
Apparel and other textile products	2.39	2.49	2.48	2.47	2.47	2.47	2.47	2.47	2.50	2.53	2.52	2.52	2.55	2.56	2.57
Paper and allied products	3.44	3.68	3.58	3.60	3.61	3.62	3.67	3.71	3.73	3.77	3.73	3.73	3.80	3.81	3.83
Printing and publishing	3.92	4.02	4.08	4.09	4.14	4.18	4.20	4.21	4.23	4.28	4.27	4.27	4.36	4.34	4.34
Chemicals and allied products	3.69	3.94	3.84	3.84	3.88	3.90	3.94	3.99	3.99	4.03	4.00	4.00	4.06	4.10	4.10
Petroleum and coal products	4.28	4.58	4.49	4.50	4.58	4.58	4.58	4.60	4.59	4.66	4.65	4.65	4.65	4.85	4.88
Rubber and plastics products, nec	3.20	3.41	3.32	3.32	3.36	3.38	3.38	3.44	3.45	3.48	3.46	3.46	3.53	3.53	3.55
Leather and leather products	2.49	2.59	2.58	2.59	2.58	2.58	2.58	2.58	2.59	2.62	2.63	2.61	2.65	2.67	2.69
TRANSPORTATION AND PUBLIC UTILITIES	3.85	4.21	4.08	4.07	4.10	4.13	4.15	4.23	4.25	4.33	4.31	4.33	4.41	4.45	4.46
WHOLESALE AND RETAIL TRADE	2.71	2.87	2.83	2.84	2.85	2.87	2.87	2.87	2.88	2.90	2.91	2.91	2.91	2.97	2.98
Wholesale trade	3.44	3.67	3.59	3.59	3.62	3.67	3.66	3.67	3.70	3.72	3.72	3.74	3.79	3.81	3.82
Retail trade	2.44	2.57	2.54	2.55	2.56	2.57	2.58	2.58	2.57	2.60	2.60	2.60	2.61	2.65	2.66
FINANCE, INSURANCE, AND REAL ESTATE	3.08	3.28	3.24	3.24	3.26	3.30	3.28	3.29	3.30	3.30	3.31	3.30	3.34	3.39	3.39
SERVICES	2.81	2.99	2.95	2.95	2.96	2.98	2.97	2.98	2.99	3.04	3.03	3.04	3.06	3.08	3.08

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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.

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

p=preliminary.

22. 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	Annual average		1971											1972	
	1970	1971	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.p	Feb.p
TOTAL PRIVATE	$119.46	$126.91	$122.61	$123.65	$124.05	$125.49	$127.57	127.94	$129.03	$129.13	$129.13	$128.76	$130.92	$129.92	$130.27
MINING	163.97	171.72	167.60	168.82	170.89	171.30	172.10	172.53	173.43	174.72	167.78	165.82	182.76	182.74	180.19
CONTRACT CONSTRUCTION	196.35	213.36	197.38	205.53	205.35	209.05	213.94	216.41	220.23	216.23	225.38	223.61	216.45	214.08	215.28
MANUFACTURING	133.73	142.44	138.29	139.74	139.83	142.00	143.51	142.09	141.69	143.28	144.00	144.72	150.18	147.26	148.40
Durable goods	143.47	153.52	149.23	151.50	150.40	153.09	155.04	151.98	151.60	153.20	154.71	155.88	162.70	158.78	160.37
Ordnance and accessories	146.57	160.55	155.32	157.59	156.94	158.12	160.93	160.66	161.80	163.41	163.44	162.96	168.75	168.40	172.94
Lumber and wood products	117.51	126.54	120.26	121.70	123.11	125.42	129.65	128.88	129.20	129.68	131.61	129.92	130.15	127.28	126.72
Furniture and fixtures	108.58	115.42	109.91	112.29	111.25	113.76	116.29	115.53	118.78	118.00	118.37	118.37	121.88	118.90	118.90
Stone, clay, and glass products	140.08	152.26	144.13	147.44	147.55	151.01	155.24	155.40	157.78	157.13	157.03	155.45	155.58	153.38	155.70
Primary metal industries	159.17	170.89	165.65	168.10	171.39	170.57	173.87	170.53	166.45	171.83	172.70	173.96	184.50	183.87	187.37
Fabricated metal products	143.67	150.72	146.07	146.77	147.26	152.22	153.38	150.72	151.13	150.42	151.93	153.47	159.83	155.98	157.14
Machinery, except electrical	154.95	161.99	156.39	159.57	158.00	160.79	162.39	161.20	162.01	164.02	164.83	166.04	174.30	170.97	173.05
Electrical equipment and supplies	130.87	139.65	134.46	137.36	136.72	138.90	139.95	139.00	140.00	140.80	140.75	142.21	147.24	144.04	144.04
Transportation equipment	163.62	180.71	181.15	182.55	175.12	182.52	183.85	172.97	171.74	172.82	182.04	182.48	196.35	185.84	186.30
Instruments and related products	134.34	140.49	136.76	138.55	137.86	140.10	140.10	140.23	140.58	142.80	142.36	144.18	147.70	146.69	144.84
Miscellaneous manufacturing industries	109.13	115.14	111.72	113.68	113.19	114.07	114.46	113.48	115.64	115.14	116.33	117.32	120.48	118.42	119.65
Nondurable goods	120.43	128.12	123.84	124.87	125.65	127.01	128.44	129.63	129.17	130.75	129.63	130.28	133.73	132.16	133.23
Food and kindred products	127.98	136.21	132.80	133.27	134.13	136.21	136.89	137.63	135.94	138.24	135.54	136.34	142.51	139.35	139.00
Tobacco manufactures	110.38	116.55	107.51	114.45	118.91	125.07	121.44	130.87	119.31	114.53	108.72	109.96	118.44	112.88	111.55
Textile mill products	97.76	104.34	101.60	102.51	102.00	103.94	104.96	102.66	104.86	104.75	106.19	107.23	108.73	109.34	111.11
Apparel and other textile products	84.37	88.40	86.06	87.44	86.45	87.69	87.69	88.43	90.00	89.82	90.47	91.48	91.55	90.62	92.26
Paper and allied products	144.14	154.93	148.21	149.76	151.26	152.04	155.48	157.30	158.53	159.08	157.78	158.15	162.64	159.64	162.39
Printing and publishing	147.78	157.92	151.37	153.38	154.42	157.17	158.34	158.30	159.47	161.36	160.55	160.55	165.68	161.01	161.88
Chemicals and allied products	153.50	163.90	158.59	158.98	162.57	161.85	164.30	164.79	164.79	169.66	166.00	166.40	170.11	170.15	170.97
Petroleum and coal products	182.76	194.19	189.93	188.10	193.73	194.65	195.11	197.80	195.53	199.45	198.09	195.77	196.70	202.73	205.94
Rubber and plastics products, nec	128.96	137.42	131.47	132.47	134.06	136.21	137.57	137.94	139.04	140.94	140.48	141.17	143.44	142.97	144.49
Leather and leather products	92.63	97.64	95.20	96.09	95.98	97.52	98.30	98.56	97.38	96.68	99.15	100.22	102.56	102.26	104.64
TRANSPORTATION AND PUBLIC UTILITIES	155.93	169.24	164.83	163.61	164.82	164.37	169.32	162.43	172.98	176.66	174.56	175.80	179.05	178.00	179.74
WHOLESALE AND RETAIL TRADE	95.66	100.74	97.92	98.55	99.18	99.88	101.60	103.61	103.68	102.08	101.85	101.56	103.31	103.06	103.70
Wholesale trade	137.60	146.07	141.45	142.16	142.63	145.33	146.40	146.43	147.63	147.68	148.06	148.85	152.74	151.26	151.65
Retail trade	82.47	86.61	84.07	84.41	85.25	85.58	87.72	89.78	89.18	87.62	87.10	86.84	89.00	87.98	88.31
FINANCE, INSURANCE, AND REAL ESTATE	113.34	121.36	119.23	119.56	120.29	121.77	121.36	122.06	123.09	121.77	122.47	122.10	123.58	125.77	125.77
SERVICES	96.66	102.26	100.30	100.30	100.64	101.02	101.57	103.70	103.75	103.66	103.32	103.36	104.65	104.41	105.03

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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.

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

p=preliminary.

23. Gross and spendable average weekly earnings of production or nonsupervisory workers [1] on private nonagricultural payrolls, in current and 1967 dollars, 1960 to date

Year and month	Private nonagricultural workers						Manufacturing workers					
	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	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars
1960	$80.67	$90.95	$65.59	$73.95	$72.96	$82.25	$89.72	$101.15	$72.57	$81.82	$80.11	$90.32
1961	82.60	92.19	67.08	74.87	74.48	83.13	92.34	103.06	74.60	83.26	82.18	91.72
1962	85.91	94.82	69.56	76.78	76.99	84.98	96.56	106.58	77.86	85.94	85.53	94.40
1963	88.46	96.47	71.05	77.48	78.56	85.67	99.63	108.65	79.82	87.04	87.58	95.51
1964	91.33	98.31	75.04	80.78	82.57	88.88	102.97	110.84	84.40	90.85	92.18	99.22
1965	95.06	100.59	78.99	83.59	86.30	91.32	107.53	113.79	89.08	94.26	96.78	102.41
1966	98.82	101.67	81.29	83.63	88.66	91.21	112.34	115.58	91.57	94.21	99.45	102.31
1967	101.84	101.84	83.38	83.38	90.86	90.86	114.90	114.90	93.28	93.28	101.26	101.26
1968	107.73	103.39	86.71	83.21	95.28	91.44	122.51	117.57	97.70	93.76	106.75	102.45
1969	114.61	104.38	90.96	82.84	99.99	91.07	129.51	117.95	101.90	92.81	111.44	101.49
1970	119.46	102.72	95.94	82.49	104.61	89.95	133.73	114.99	106.62	91.68	115.90	99.66
1971	126.91	104.62	103.51	85.33	112.12	92.43	142.44	117.43	114.97	94.78	124.24	102.42
1971:												
January	121.88	102.25	99.80	83.72	108.15	90.73	138.60	116.28	112.14	94.08	121.25	101.72
February	122.61	102.69	100.34	84.04	108.73	91.06	138.29	115.82	111.91	93.73	121.01	101.35
March	123.65	103.21	101.10	84.39	109.55	91.44	139.74	116.64	112.98	94.31	122.14	101.95
April	124.05	103.20	101.40	84.36	109.86	91.40	139.83	116.33	113.04	94.04	122.21	101.67
May	125.49	103.88	102.46	84.82	111.00	91.89	142.00	117.55	114.65	94.91	123.90	102.57
June	127.57	105.00	104.00	85.60	112.64	92.71	143.51	118.12	115.76	95.28	125.07	102.94
July	127.94	105.04	104.27	85.61	112.93	92.72	142.09	116.66	114.71	94.18	123.97	101.78
August	129.03	105.68	105.07	86.05	113.79	93.19	141.69	116.04	114.42	93.71	123.65	101.27
September	129.13	105.67	105.15	86.05	113.86	93.18	143.28	117.25	115.59	94.59	124.89	102.20
October	129.13	105.50	105.15	85.91	113.86	93.02	144.00	117.65	116.12	94.87	125.45	102.49
November	128.76	105.02	104.87	85.54	113.57	92.63	144.72	118.04	116.65	95.15	126.01	102.78
December	130.92	106.35	106.47	86.49	115.28	93.65	150.18	122.00	120.64	98.00	130.25	105.81
1972:												
January p	129.92	105.45	107.04	86.88	116.18	94.30	147.26	119.53	119.84	97.27	129.78	105.34
February p	**130.27**	**105.23**	**107.30**	**86.67**	**116.45**	**94.06**	**148.40**	**119.87**	**120.68**	**97.48**	**130.67**	**105.55**

[1] The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment). To reflect the retroactive tax exemption provisions of the Tax Reform Act of 1971, the spendable earnings series has been revised back to January 1971. Moreover, the Consumer Price Index has been revised back to August 1971, to reflect the retroactive repeal of the automobile excise tax. Because of these revisions, monthly data published in this table beginning with the January 1972 issue of the **Monthly Labor Review** are not comparable with such data in earlier issues. Comparable back data will be published in **Employment and Earnings, United States, 1909–71** (BLS Bulletin 1312–8).

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.

Spendable average weekly earnings are based on gross average weekly earnings as published in table 22 less the estimated amount of the worker's 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 1967 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.

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

[Indexes: 1967 = 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	71.4	−1.0	78.3	−2.6	56.9	4.8	78.7	−5.0	89.6	−11.7	75.3	−2.1
1950	72.1	1.0	78.3	.6	58.7	3.2	81.8	3.9	93.9	4.8	78.0	3.6
1951	77.8	7.9	85.9	9.0	61.8	5.3	91.9	11.4	106.9	13.8	86.1	10.4
1952	79.5	2.2	87.0	1.3	64.5	4.4	88.6	−2.7	102.7	−3.9	84.1	−2.3
1953	80.1	.8	86.7	−.3	67.3	4.3	87.4	−1.4	96.0	−6.5	84.8	.8
1954	80.5	.5	95.9	−.9	69.5	3.3	87.6	.2	−95.7	−.3	85.0	.2
1955	80.2	−.4	85.1	−.9	70.9	2.0	87.8	.2	91.2	−4.7	86.9	2.2
1956	81.4	1.5	85.9	.9	72.7	2.5	90.7	3.3	90.6	−.7	90.8	4.5
1957	84.3	3.6	88.6	3.1	75.6	4.0	93.3	2.9	93.7	3.4	93.3	2.8
1958	86.6	2.7	90.6	2.3	78.5	3.8	94.6	1.4	98.1	4.7	93.6	.3
1959	87.3	.8	90.7	.1	80.8	2.9	94.8	.2	93.5	−4.7	95.3	1.8
1960	88.7	1.6	91.5	.9	83.5	3.3	94.9	.1	93.7	.2	95.3	.0
1961	89.6	1.0	92.0	.5	85.2	2.0	94.5	−.4	93.7	.0	94.8	−.5
1962	90.6	1.1	92.8	.9	86.8	1.9	94.8	.3	94.7	1.1	94.8	.0
1963	91.7	1.2	93.6	.9	88.5	2.0	94.5	−.3	93.8	−1.0	94.7	−.1
1964	92.9	1.3	94.6	1.1	90.2	1.9	94.7	.2	93.2	−.6	95.2	.5
1965	94.5	1.7	95.7	1.2	92.2	2.2	96.6	2.0	97.1	4.2	96.4	1.3
1966	97.2	2.9	98.2	2.6	95.8	3.9	99.8	3.3	103.5	6.6	98.5	2.2
1967	100.0	2.9	100.0	1.8	100.0	4.4	100.0	.2	100.0	−3.4	100.0	1.5
1968	104.2	4.2	103.7	3.7	105.2	5.2	102.5	2.5	102.4	2.4	102.5	2.5
1969	109.8	5.4	108.4	4.5	112.5	6.9	106.5	3.9	r108.0	r5.5	106.0	3.4
1970	116.3	5.9	113.5	4.7	121.6	10.0	110.4	3.7	111.6	r3.3	110.0	3.8
1971	**121.3**	**4.3**	**117.4**	**3.4**	**128.4**	**5.6**	**113.9**	**3.2**	**113.8**	**2.0**	**114.0**	**3.6**

[1] Historical price changes are shown in greater detail and for earlier years in the Bureau's **Handbook of Labor Statistics, 1971** (BLS Bulletin 1705).

25. Consumer Price Index—U.S. average—general summery and groups, subgroups, and selected items

[1967 = 100 unless otherwise specified]

Group	General summary													
	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
All items	121.3	119.2	119.4	119.8	120.2	120.8	121.5	121.8	r122.1	r122.2	r122.4	122.6	123.1	123.2
All items (1957–59=100)	141.0	138.6	138.9	139.3	139.8	140.5	141.3	141.7	r142.0	r142.1	r142.4	142.6	143.1	143.3
Food	118.4	115.5	115.9	117.0	117.8	118.2	119.2	119.8	120.0	119.1	119.9	119.0	120.3	120.3
Food at home	116.4	113.4	113.9	115.1	116.1	116.3	117.4	118.1	118.1	116.9	116.6	116.7	118.2	118.2
Food away from home	126.1	123.4	123.9	124.3	124.8	125.3	125.9	126.5	127.1	127.6	128.0	128.2	128.3	128.6
Housing	124.3	122.7	122.6	122.4	122.5	123.2	124.0	124.5	125.1	125.5	125.9	126.4	126.8	127.3
Rent	115.2	112.9	113.6	113.9	114.4	114.7	115.2	115.4	115.8	116.1	116.4	116.6	116.9	117.1
Homeownership	133.7	133.4	132.3	131.2	130.9	131.6	133.0	133.5	134.4	135.1	135.7	136.7	137.0	137.8
Apparel and upkeep	119.8	117.6	118.1	118.6	119.1	120.2	120.1	119.3	119.0	120.6	121.6	121.9	121.8	120.2
Transportation	118.6	117.5	117.5	117.8	118.1	118.8	119.6	119.5	r119.3	r118.6	r119.3	118.8	118.6	119.0
Health and recreation	122.2	119.8	120.2	120.6	121.2	121.6	122.1	122.6	123.1	123.6	123.5	123.7	123.9	124.3
Medical care	128.4	124.9	125.8	126.8	127.5	128.1	128.6	129.3	130.0	130.4	129.6	129.7	130.1	130.5
Special groups														
All items less shelter	119.3	117.0	117.4	118.0	118.6	119.2	119.8	120.0	r120.2	r120.2	r120.3	120.4	120.9	120.9
All items less food	122.1	120.3	120.4	120.6	120.9	121.6	122.2	122.4	r122.7	r123.1	r123.5	123.7	123.9	124.0
All items less medical care	120.9	118.9	119.1	119.4	119.8	120.4	121.1	121.4	r121.6	r121.7	r122.1	122.3	122.7	122.8
Commodities	117.4	115.4	115.5	116.1	116.6	117.2	117.9	118.1	r118.2	r118.1	r118.4	118.5	118.9	118.7
Nondurables	117.7	115.4	115.7	116.4	116.9	117.4	118.1	118.3	118.6	118.7	118.8	118.9	119.5	119.2
Durables	116.5	115.2	115.0	115.2	115.7	116.6	117.4	117.5	r116.9	r116.4	r117.1	117.4	117.2	117.3
Services	128.4	126.3	126.6	126.6	126.8	127.5	128.2	128.8	r129.4	r129.8	r130.0	130.4	130.8	131.5
Commodities less food	116.8	115.2	115.2	115.5	115.8	116.6	117.1	117.0	r117.1	r117.4	r118.0	118.1	118.1	117.7
Nondurables less food	117.0	115.3	115.4	115.7	116.0	116.6	116.9	116.7	117.2	118.2	118.7	118.7	118.8	118.1
Apparel commodities	120.1	117.8	118.3	118.8	119.3	120.5	120.4	119.5	119.1	120.9	122.0	122.4	122.2	120.3
Apparel commodities less footwear	119.9	117.4	118.0	118.5	119.0	120.3	120.1	119.3	118.6	120.7	121.9	122.3	122.1	119.9
Nondurables less food and apparel	115.2	113.8	113.8	114.0	114 0	114.3	114.9	115.1	116.2	116.6	116.8	116.5	116.8	116.8
Household durables	112.9	111.5	111.8	112.1	112.4	112.7	113.1	113.2	113.4	113.5	113.6	113.6	113.7	113.7
Housefurnishings	114.3	112.7	113.2	113.5	114.0	114.1	114.7	114.7	114.8	114.9	115.1	115.1	115.3	114.9
Services less rent	130.9	128.7	129.0	128.9	129.1	129.8	130.6	131.2	r131.9	r132.3	r132.5	132.9	133.3	134.1
Household services less rent	132.6	131.6	131.0	130.1	129.7	130.7	131.6	132.5	133.6	134.2	134.7	135.4	136.1	137.0
Transportation services	133.1	129.5	131.3	132.0	133.0	133.1	134.1	134.3	r134.1	r133.8	r133.9	134.0	134.2	135.6
Medical care services	133.3	129.3	130.2	131.4	132.2	132.9	133.5	134.4	135.1	135.6	134.6	134.8	135.3	135.8
Other services	122.5	120.7	120.9	121.2	121.5	122.0	122.5	122.6	122.8	123.7	123.8	124.0	124.1	124.3

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Groups, subgroups, and selected items													
	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOOD	118.4	115.5	115.9	117.0	117.8	118.2	119.2	119.8	120.0	119.1	118.9	119.0	120.3	120.3
Food away from home	126.1	123.4	123.9	124.3	124.8	125.3	125.9	126.5	127.1	127.6	128.0	128.2	128.3	128.6
Restaurant meals	125.8	123.1	123.6	124.1	124.5	125.0	125.7	126.2	126.9	127.3	127.7	127.9	128.0	128.3
Snacks	127.5	125.1	125.4	125.7	126.2	126.7	127.2	128.0	128.2	128.6	129.5	129.4	129.6	130.0
Food at home	116.4	113.4	113.9	115.1	116.1	116.3	117.4	118.1	118.1	116.9	116.6	116.7	118.2	118.2
Cereals and bakery products	113.9	112.4	112.8	113.0	113.9	114.1	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.7
Flour	101.0	100.2	100.7	99.8	101.3	101.6	101.7	101.3	101.2	101.5	101.1	101.1	100.5	100.8
Cracker meal	129.8	124.1	126.4	128.0	129.4	130.1	130.6	130.8	131.1	131.5	131.6	131.7	131.9	132.2
Corn flakes	107.3	108.8	109.4	109.7	110.1	110.2	110.1	109.0	105.6	104.2	103.6	103.5	103.0	102.5
Rice	109.4	108.0	108.7	108.9	108.9	109.1	109.4	109.6	109.9	110.1	109.9	109.8	110.0	110.3
Bread, white	112.3	111.9	111.8	111.2	112.1	112.2	112.6	113.9	112.9	113.4	112.1	112.0	111.4	111.2
Bread, whole wheat	117.5	115.1	115.2	115.9	116.6	117.0	117.2	118.4	118.7	119.1	119.2	119.3	118.5	118.9
Cookies	108.7	105.6	106.0	107.1	109.7	109.8	108.4	109.9	110.0	109.9	109.9	108.7	109.3	109.2
Layer cake	120.1	118.7	119.1	119.1	119.6	119.5	120.0	120.3	121.2	121.5	120.7	120.5	120.8	119.6
Cinnamon rolls	118.2	116.8	117.0	117.5	117.3	118.0	118.3	118.8	119.1	118.6	119.6	119.2	118.5	119.0
Meats, poultry, and fish	116.9	113.1	113.6	115.6	115.7	115.8	117.4	118.0	118.7	119.1	118.4	118.1	118.9	120.7
Meats	116.7	112.9	113.5	115.6	115.7	115.6	117.0	117.6	118.4	118.8	118.3	118.2	119.1	121.1
Beef and veal	124.9	118.5	120.0	122.4	124.2	124.6	126.1	126.6	126.8	127.7	127.1	126.6	128.0	130.8
Steak, round	123.5	116.2	119.1	121.1	124.3	123.8	125.1	124.4	125.3	126.1	125.5	125.2	126.3	130.8
Steak, sirloin	122.8	115.7	116.1	118.9	120.9	122.5	125.1	126.7	125.0	127.8	125.3	123.5	125.5	128.5
Steak, porterhouse	124.1	116.1	117.3	119.6	121.7	123.1	125.7	128.1	128.1	129.5	127.3	125.7	127.5	131.1
Rump roast	122.4	116.0	118.6	120.3	122.7	123.1	124.1	122.4	124.1	124.0	125.2	124.0	124.4	128.1
Rib roast	126.2	118.9	118.1	121.9	122.5	125.4	128.2	129.3	129.9	130.8	129.3	128.8	131.8	135.2
Chuck roast	124.4	115.1	119.5	124.8	125.6	125.1	125.5	125.1	126.0	125.9	125.6	125.9	128.9	131.0
Hamburger	126.2	121.6	122.3	124.7	125.7	125.9	127.4	127.5	127.1	128.3	127.6	127.6	129.1	130.8
Beef liver	113.7	111.8	112.3	112.9	114.0	113.5	113.3	114.5	114.3	114.0	114.8	114.7	114.6	114.8
Veal cutlets	141.7	133.4	134.2	136.1	138.7	139.6	140.8	144.6	145.5	146.0	146.7	147.2	148.0	150.1
Pork	105.0	103.6	103.2	106.0	103.6	102.2	103.6	104.7	106.9	106.4	105.8	106.3	107.2	109.2
Chops	107.4	101.1	102.7	108.4	105.9	102.5	105.3	108.0	113.1	109.9	109.8	110.5	111.2	111.4
Loin roast	106.6	102.5	103.4	107.0	103.6	102.5	104.9	106.6	111.1	110.0	108.7	109.2	109.7	111.1
Pork sausage	111.4	110.8	110.9	112.0	111.7	109.3	110.4	110.9	111.4	113.0	112.8	112.0	111.4	112.9
Ham, whole	103.9	109.6	105.7	106.6	99.4	102.4	103.6	103.0	102.9	103.8	102.0	102.4	105.9	110.0
Picnics	108.0	107.5	108.5	110.3	109.2	106.8	105.5	105.6	107.4	106.7	107.9	108.7	111.3	113.3
Bacon	96.6	97.8	95.4	96.6	95.6	95.3	96.1	96.7	96.6	97.7	96.6	97.4	97.3	101.0
Other meats	115.6	114.1	114.0	114.5	114.3	114.9	115.9	116.1	116.4	117.0	116.5	116.5	116.6	116.8
Lamb chops	121.5	117.6	118.1	118.7	118.6	119.4	121.1	123.5	124.2	124.7	123.4	124.5	124.4	124.8
Frankfurters	115.1	114.3	113.3	114.2	115.2	114.4	115.8	114.7	115.7	116.0	116.0	115.9	115.2	115.4
Ham, canned	107.2	107.6	107.6	107.7	104.6	107.1	107.5	105.9	106.6	108.0	107.8	108.3	107.8	109.0
Bologna sausage	118.8	116.6	116.5	117.3	117.9	118.4	118.9	119.4	119.8	120.4	120.1	119.9	120.1	120.0
Salami sausage	116.3	115.1	114.8	115.1	115.4	115.5	116.9	117.4	117.6	117.7	116.8	116.4	117.4	116.9
Liverwurst	114.3	113.4	113.8	114.0	114.0	114.4	114.8	115.5	114.2	114.8	114.5	113.8	114.1	114.2
Poultry	109.0	106.3	105.5	107.8	107.3	107.8	111.6	112.1	112.1	112.2	110.0	108.1	107.5	108.4
Frying chicken	108.5	105.7	104.2	107.5	107.5	107.3	112.1	112.3	111.7	111.9	109.0	106.8	106.2	107.5
Chicken breasts	109.5	105.8	106.6	106.7	108.7	108.3	109.9	111.1	113.5	112.7	111.3	109.7	109.8	110.4
Turkey	111.1	109.9	110.7	110.4	105.5	109.6	111.1	112.2	112.6	113.3	113.7	112.9	111.4	111.1
Fish	130.2	125.4	127.0	127.7	128.6	129.4	130.3	131.0	131.9	132.5	132.8	132.9	133.2	134.7
Shrimp, frozen	117.6	113.7	115.1	114.5	115.3	116.2	116.8	118.8	119.9	119.7	120.1	120.6	120.4	123.1
Fish, fresh or frozen	140.2	133.6	135.6	137.8	138.5	140.0	141.3	141.9	142.4	142.5	143.0	142.7	142.7	144.7
Tuna fish, canned	128.4	125.6	127.1	127.9	129.0	128.8	129.5	129.1	129.1	129.2	128.9	128.2	128.7	128.6
Sardines, canned	134.7	128.8	130.2	130.8	131.5	132.8	133.7	134.3	136.3	138.5	139.1	139.7	140.9	142.2
Dairy products	115.3	113.9	114.0	114.2	114.6	115.1	115.7	116.0	116.0	116.1	116.0	115.9	116.1	116.4
Milk, fresh, grocery	114.6	113.1	113.1	113.7	114.2	114.8	115.2	115.1	115.2	115.4	115.3	115.2	115.2	115.7
Milk, fresh, delivered	117.6	116.6	116.5	116.8	117.2	117.6	117.9	118.1	118.1	118.1	118.1	118.1	118.5	118.8
Milk, fresh, skim	119.7	117.9	118.0	118.2	119.4	120.2	120.7	120.5	120.3	120.8	120.3	120.1	120.1	120.5
Milk, evaporated	118.6	115.5	115.4	115.9	115.8	117.0	119.0	120.4	121.2	121.2	121.4	120.2	120.6	120.9
Ice cream	106.2	106.6	106.0	105.4	105.0	105.4	105.2	107.2	106.5	106.9	106.1	106.4	107.2	106.7
Cheese, American process	121.0	118.8	119.2	119.4	120.3	120.7	121.7	122.1	122.0	121.8	122.1	122.3	122.1	122.3
Butter	105.8	105.9	106.0	105.9	105.9	105.6	105.8	105.6	105.7	105.8	105.8	105.7	105.4	105.8
Fruits and vegetables	119.1	109.6	112.6	116.0	120.0	121.4	125.1	126.0	123.6	116.6	115.6	117.8	124.4	120.9
Fresh fruits and vegetables	121.0	107.4	112.2	117.7	123.6	125.6	131.2	132.2	127.4	115.3	113.6	117.3	128.2	122.1
Apples	114.2	101.3	104.5	108.4	113.4	116.2	123.9	136.1	139.0	125.3	101.8	98.5	102.1	106.8
Bananas	95.5	89.2	95.1	96.0	95.8	94.1	92.6	97.4	99.5	98.5	101.8	94.1	92.2	92.6
Oranges	125.5	111.3	115.1	116.3	115.9	120.9	125.0	128.7	135.3	138.3	137.1	133.1	128.4	123.7
Orange juice, fresh	124.3	118.8	116.8	116.7	119.2	121.6	124.0	126.8	128.2	129.4	129.1	129.9	130.5	130.8
Grapefruit	135.7	103.1	107.1	109.5	118.9	124.3	149.3	168.2	175.9	171.6	153.5	126.8	120.6	121.2
Grapes [1]	143.8	-------	-------	-------	-------	-------	-------	171.4	169.7	120.3	119.6	138.2	-------	-------
Strawberries [1]	114.1	-------	-------	-------	128.6	109.4	104.2	-------	-------	-------	-------	-------	-------	-------
Watermelon [1]	141.7	-------	-------	-------	-------	-------	170.9	135.1	119.0	-------	-------	-------	-------	-------
Potatoes	117.3	110.6	110.1	111.2	113.4	115.7	135.9	134.0	127.7	115.0	111.2	110.2	112.4	112.7
Onions	104.4	95.3	95.7	95.4	97.3	103.4	107.0	111.1	115.2	111.3	109.8	106.2	105.5	105.7
Asparagus [1]	131.0	-------	-------	159.9	123.2	123.3	121.2	127.3	-------	-------	-------	-------	-------	-------
Cabbage	122.2	111.4	121.0	119.7	126.8	129.8	139.5	127.4	109.4	103.4	106.4	113.3	158.3	145.3
Carrots	129.9	109.0	109.5	108.6	121.2	133.7	153.0	163.6	162.7	125.5	117.3	120.6	134.2	145.7

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Fruits and vegetables—Continued														
Celery	118.5	109.3	108.3	106.5	107.3	107.6	121.4	122.3	125.6	111.2	111.5	129.1	161.3	174.6
Cucumbers	120.1	115.5	125.5	135.0	173.2	151.5	129.4	109.5	90.0	84.8	96.6	104.9	125.2	120.9
Lettuce	124.1	106.0	108.8	118.6	109.7	125.3	117.3	125.4	124.0	111.4	123.2	146.6	173.0	133.6
Peppers, green	142.9	100.4	127.9	159.6	215.6	212.2	207.3	131.6	105.2	90.8	97.5	118.5	148.3	114.0
Spinach	129.2	122.9	126.3	126.8	129.5	129.2	127.4	129.8	129.0	128.1	130.8	131.0	140.0	139.1
Tomatoes	131.8	118.1	130.4	138.0	147.0	152.2	127.9	154.3	122.0	95.4	106.0	121.7	159.1	143.8
Processed fruits and vegetables	116.2	112.8	113.0	113.5	114.7	115.1	115.9	116.9	117.9	118.6	118.4	118.5	118.8	119.2
Fruit cocktail, canned	117.9	114.6	114.7	115.2	116.8	117.2	117.7	119.0	119.1	120.2	120.0	119.9	120.2	121.4
Pears, canned	116.7	115.0	115.9	115.9	116.7	116.6	117.1	116.9	117.4	117.7	117.5	116.9	116.5	116.9
Pineapple-grapefruit drink	113.6	113.0	111.6	112.4	113.5	113.3	113.2	113.5	114.1	114.0	114.5	115.1	114.4	114.7
Orange juice concentrate, frozen	127.2	117.0	117.4	117.6	120.4	121.0	126.1	130.3	133.6	136.3	136.0	135.3	135.6	135.8
Lemonade concentrate, frozen	113.9	111.1	111.9	112.3	113.0	113.2	113.5	113.8	114.8	115.5	115.9	115.3	116.9	117.4
Beets, canned	115.1	112.7	112.2	112.4	114.0	114.4	114.8	115.7	116.6	117.5	117.4	116.8	117.0	118.3
Peas, green, canned	106.6	104.5	104.5	105.2	106.5	106.3	105.8	107.2	107.6	108.0	107.0	108.0	108.6	108.6
Tomatoes, canned	115.6	114.7	114.8	115.2	115.6	115.3	116.0	115.9	116.2	116.6	115.7	115.7	115.1	114.9
Dried beans	122.8	111.4	113.1	113.9	116.0	119.1	122.4	124.7	128.1	129.5	130.6	131.9	133.2	133.9
Broccoli, frozen	117.7	116.5	116.7	116.7	117.8	117.9	117.5	118.2	118.7	118.4	117.9	117.8	117.9	117.8
Other food at home	115.9	117.0	115.7	115.6	115.8	115.5	114.7	115.7	116.7	115.5	116.2	115.6	116.6	116.2
Eggs	108.4	124.0	112.7	110.9	109.7	106.1	99.1	105.2	109.7	102.4	106.7	103.2	110.5	108.0
Fats and oils:														
Margarine	116.0	113.6	113.7	114.0	115.3	116.1	115.6	115.6	116.4	117.6	118.1	117.8	117.7	117.3
Salad dressing, Italian	109.3	106.3	107.4	107.7	109.0	109.7	109.6	110.2	110.0	110.2	109.9	110.6	110.9	110.2
Salad or cooking oil	120.1	114.9	116.7	117.3	119.0	119.1	119.0	119.7	121.6	123.3	123.4	123.5	123.5	123.9
Sugar and sweets	119.3	117.8	117.9	118.1	118.7	119.0	119.4	119.7	120.3	120.2	120.1	120.0	120.1	120.1
Sugar	112.5	111.0	111.4	111.4	112.1	112.2	112.2	112.6	113.2	113.5	113.4	113.5	113.5	113.6
Grape jelly	119.3	115.8	116.2	116.2	117.3	118.5	119.4	120.4	121.7	121.6	121.2	121.4	121.6	121.5
Chocolate bar	130.9	129.8	129.8	130.3	130.7	130.7	131.2	131.3	131.7	131.4	131.5	131.3	131.3	130.8
Syrup, chocolate flavored	113.2	113.4	113.2	113.4	113.7	113.6	113.5	113.3	113.4	113.2	113.0	112.5	112.7	113.3
Nonalcoholic beverages	121.6	121.9	122.1	121.8	122.0	121.8	122.2	122.0	122.0	121.0	121.2	120.9	120.5	120.4
Coffee ,can and bag	121.8	125.2	125.0	123.8	123.1	122.6	122.4	121.8	121.8	119.1	119.3	119.0	118.5	118.2
Coffee, instant	124.7	124.6	124.0	123.0	124.1	124.3	125.0	124.9	125.2	125.4	125.3	125.1	125.1	124.7
Tea	107.6	106.1	107.3	107.5	108.5	107.7	108.4	108.5	108.0	108.0	107.8	107.8	106.0	106.1
Cola drink	125.9	122.8	123.7	124.9	125.2	125.7	126.3	126.4	126.7	127.0	127.3	127.1	127.1	127.7
Carbonated fruit drink	126.4	123.5	124.3	124.7	125.6	125.9	126.8	127.2	127.5	127.6	127.8	127.7	127.9	127.9
Prepared and partially prepared foods	112.7	111.3	111.6	111.9	112.3	112.5	112.8	113.1	113.5	113.4	113.4	113.2	113.3	113.5
Bean soup, canned	114.1	113.4	113.6	113.2	113.7	113.6	114.0	113.7	114.8	114.7	114.7	114.7	114.7	114.5
Chicken soup, canned	106.4	106.2	106.2	106.7	106.6	106.5	106.5	106.4	106.3	106.6	106.5	106.0	105.7	106.4
Spaghetti, canned	117.3	116.4	117.0	117.1	117.2	117.0	117.1	117.1	117.6	117.7	117.7	117.7	117.5	118.1
Mashed potatoes, instant	110.8	109.7	110.3	110.4	110.2	110.8	111.6	112.4	111.9	110.4	110.4	110.7	111.0	111.5
Potatoes, French fried, frozen	110.1	110.1	110.4	110.6	110.4	110.1	110.1	110.8	110.9	110.3	109.9	108.5	109.3	108.5
Baby food, canned	110.9	109.8	109.9	110.4	110.7	110.6	111.1	111.0	111.8	111.8	111.6	111.3	111.1	111.1
Sweet pickle relish	117.4	113.8	114.4	114.7	115.2	116.5	116.7	117.4	118.9	119.5	120.0	120.6	121.2	122.0
Pretzels	113.1	109.9	110.1	111.2	112.8	113.4	113.9	114.5	114.1	114.5	114.4	114.0	114.5	114.1
HOUSING	124.3	122.7	122.6	122.4	122.5	123.2	124.0	124.5	125.1	125.5	125.9	126.4	126.8	127.3
Shelter	128.8	128.0	127.3	126.7	126.5	127.2	128.3	128.8	129.5	130.1	130.6	131.3	131.6	132.3
Rent	115.2	112.9	113.6	113.9	114.4	114.7	115.2	115.4	115.8	116.1	116.4	116.6	116.9	117.1
Homeownership	133.7	133.4	132.3	131.2	130.9	131.6	133.0	133.5	134.4	135.1	135.7	136.7	137.0	137.8
Mortgage interest rates	120.4	131.4	127.4	122.0	118.5	117.3	117.0	117.4	118.1	118.7	119.1	118.9	118.6	118.4
Property taxes	131.1	126.9	127.1	127.4	127.8	129.6	129.9	130.5	132.2	133.1	134.6	136.3	137.6	141.1
Property insurance rates	119.9	114.5	116.0	117.0	118.8	119.3	120.2	121.5	121.5	121.5	122.4	122.4	122.4	122.4
Maintenance and repairs	133.7	128.8	129.3	130.4	131.1	131.9	134.0	134.7	135.8	136.8	137.0	137.1	137.4	137.8
Commodities	119.0	116.1	116.4	116.7	117.4	118.1	119.8	119.9	120.6	120.9	120.9	120.8	120.8	121.3
Exterior house paint	115.9	114.9	115.6	115.5	115.5	116.0	116.0	115.7	115.3	116.5	116.5	116.5	116.8	117.7
Interior house paint	114.5	113.8	113.9	113.1	113.9	113.4	114.1	114.2	115.2	115.5	115.6	115.3	115.4	115.8
Services	140.0	134.3	134.9	136.2	137.1	137.9	140.1	141.2	142.4	143.7	144.0	144.1	144.6	144.9
Repainting living and dining rooms	148.3	141.3	141.7	142.9	144.6	146.2	148.5	149.6	151.3	153.0	153.1	153.6	154.0	154.4
Reshingling roofs	144.8	135.8	136.2	138.9	140.4	141.9	145.8	147.2	148.8	150.1	150.7	150.6	151.6	152.0
Residing houses	130.6	127.0	127.4	128.3	128.8	129.0	130.5	131.1	132.1	132.8	133.1	133.2	133.3	133.4
Replacing sinks	140.6	135.8	136.4	137.4	137.9	138.9	141.1	142.2	143.0	143.4	143.4	143.6	143.7	143.9
Repairing furnaces	144.3	138.1	139.1	140.7	141.1	141.6	143.0	144.5	145.9	148.9	149.2	149.1	150.2	150.9
Fuel and utilities	115.1	112.1	113.1	113.8	114.1	114.4	114.6	115.5	116.3	116.3	116.3	116.8	117.9	118.7
Fuel oil and coal	117.5	116.7	117.2	117.4	117.3	117.2	117.4	117.5	117.8	117.8	117.8	118.1	118.1	118.7
Fuel oil, #2	116.1	115.3	115.8	116.0	116.0	115.9	116.1	116.1	116.4	116.4	116.4	116.4	116.4	116.5
Gas and electricity	114.7	111.5	112.8	113.3	113.9	114.4	114.6	114.7	115.7	115.7	115.7	116.2	118.2	119.0
Gas	116.3	112.7	114.6	114.8	115.8	116.6	116.4	116.1	116.8	116.8	116.8	118.1	120.5	121.7
Electricity	113.2	110.4	111.2	112.0	112.1	112.4	113.0	113.5	114.6	114.6	114.6	114.5	116.0	116.6
Other utilities:														
Residential telephone	108.0	r104.8	105.9	r105.9	106.2	106.2	r106.4	108.9	110.2	110.2	110.2	110.2	110.7	111.8
Residential water and sewerage	133.4	128.9	128.9	132.6	132.6	132.6	132.6	135.0	135.0	135.0	135.0	136.4	136.4	136.4

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
HOUSING—Continued														
Household furnishings and operations	118.1	115.4	115.9	116.4	17.0	118.1	118.7	118.9	119.1	119.4	119.5	119.5	119.6	119.5
House furnishings	114.3	112.7	113.2	113.5	114.0	114.1	114.7	114.7	114.8	114.9	115.1	115.1	115.3	114.9
Textiles	111.6	109.7	111.1	111.3	111.7	110.8	112.2	111.3	111.1	111.9	112.2	112.9	113.1	110.8
Sheets, percale, or muslin	113.9	111.6	115.7	114.7	115.5	111.7	114.7	112.0	110.2	114.0	113.4	116.5	116.5	110.1
Curtains, tailored, polyester marquisette	110.0	108.2	108.7	108.8	109.3	108.2	110.0	110.7	111.5	111.3	111.5	110.9	110.6	110.3
Bedspreads, chiefly cotton	107.8	107.4	108.2	108.2	108.1	107.6	107.7	106.7	107.0	107.4	107.8	108.4	108.8	105.1
Drapery fabric, cotton or rayon/acetate	118.4	117.1	117.7	117.5	117.1	117.7	118.6	119.3	118.9	118.8	119.5	119.0	119.1	118.9
Slipcovers, throws, ready made, chiefly cotton	111.8	109.8	110.7	111.0	111.2	111.2	112.7	112.2	112.4	111.6	112.5	112.8	113.2	113.1
Furniture and bedding	119.1	116.9	117.4	118.1	118.8	119.1	119.6	119.6	119.6	119.7	119.9	119.9	120.1	119.8
Bedroom furniture, chest and dresser [2 3]	103.6	101.3	101.9	102.4	102.8	103.3	104.1	104.5	104.5	104.6	104.7	104.8	104.7	104.6
Living room suites, good or inexpensive quality [4]	115.7	114.3	114.3	115.1	115.0	115.3	115.8	115.7	116.2	116.4	116.5	116.6	116.9	------
Lounge chair, upholstered [4]	123.6	120.1	120.9	121.7	122.3	123.6	124.7	124.3	125.1	125.6	125.0	125.0	125.0	------
Dining room chairs [3 5]	103.0	101.9	102.2	102.6	103.5	102.8	103.4	103.2	102.9	103.4	103.3	103.4	103.5	103.4
Sofas, upholstered [4]	117.5	115.3	115.8	116.9	117.9	116.6	117.1	116.8	117.5	117.5	119.4	119.1	119.5	------
Sofas, dual purpose	116.4	115.1	116.6	117.3	115.9	116.7	116.4	116.4	116.5	116.3	116.4	116.4	116.9	116.7
Bedding, mattress, and box springs [6 7]	103.4	101.4	102.3	102.8	103.3	103.3	103.8	103.9	104.0	103.7	104.1	103.9	104.4	103.7
Cribs	117.9	117.4	116.5	117.1	117.1	117.5	118.3	118.9	118.0	118.4	118.0	119.2	118.8	118.0
Sofa; traditional, contemporary or colonial [8]	------	------	------	------	------	------	------	------	------	------	------	------	100.0	99.8
Cocktail table [8]	------	------	------	------	------	------	------	------	------	------	------	------	100.0	100.1
Recliner, upholstered [8]	------	------	------	------	------	------	------	------	------	------	------	------	100.0	99.2
Floor coverings	106.3	105.9	106.2	106.2	106.2	106.0	106.4	106.3	106.8	106.5	106.5	106.3	106.6	106.3
Broadloom carpeting, manmade fibers	102.3	102.5	102.5	102.3	102.2	101.9	102.4	102.1	102.7	102.2	102.3	101.8	102.1	101.9
Vinyl sheet goods	114.7	111.7	112.8	113.2	114.5	114.4	114.5	114.9	115.9	116.1	116.0	116.3	116.5	115.6
Vinyl asbestos tile	116.6	115.5	116.6	116.7	116.1	116.3	116.7	116.9	116.4	116.7	116.7	117.0	117.4	117.6
Appliances	105.5	105.1	105.1	105.0	105.2	105.3	105.6	105.7	105.7	105.8	105.8	105.7	105.8	105.8
Washing machines, automatic	109.4	108.4	108.5	109.0	108.9	109.3	109.4	109.7	109.9	110.1	110.0	110.0	110.0	110.2
Vacuum cleaners, canister type	103.8	103.2	103.5	102.9	103.4	103.6	104.3	104.3	104.3	104.3	104.1	103.9	103.6	104.0
Refrigerator-freezers	108.1	107.5	107.8	107.8	107.9	107.9	108.3	108.3	108.2	108.3	108.3	108.2	108.3	108.2
Ranges, free standing, gas or electric	111.0	109.8	109.9	110.0	110.6	111.3	111.3	111.7	111.4	111.2	112.0	111.0	111.3	111.2
Clothes dryers, electric	112.4	110.3	110.8	111.5	112.1	112.2	112.8	113.1	113.2	113.4	113.1	113.0	113.0	113.3
Air conditioners [1]	110.2	------	------	109.1	108.9	110.0	111.0	111.4	111.0	------	------	------	------	------
Room heaters, electric, portable [1]	108.1	108.4	107.6	107.1	------	------	------	------	------	------	108.0	108.5	108.9	108.6
Garbage disposal units	110.1	110.8	110.5	109.2	109.5	109.6	109.6	110.1	110.2	110.3	110.2	110.3	110.4	110.9
Other house furnishings:														
Dinnerware, earthenware	117.8	114.7	115.1	116.0	117.0	117.9	118.3	118.4	118.9	119.2	119.3	119.2	119.4	120.1
Flatware, stainless steel	120.4	117.8	119.8	119.5	119.4	119.3	119.6	120.4	121.5	121.7	122.1	122.0	121.8	122.0
Table lamps, with shade	121.0	118.6	118.9	119.3	120.3	121.0	121.4	121.9	122.3	122.2	122.0	122.2	121.9	122.0
Housekeeping supplies:														
Laundry soaps and detergents	109.8	106.4	107.4	108.1	109.8	110.5	110.4	110.6	111.1	111.1	110.9	110.6	110.8	111.0
Paper napkins	126.7	121.7	122.9	125.1	126.6	127.5	126.1	127.6	128.1	128.3	128.8	128.9	128.6	128.6
Toilet tissue	123.6	122.5	122.7	123.3	123.6	124.5	124.8	124.0	122.6	123.7	123.9	123.6	123.8	124.5
Housekeeping services:														
Domestic service, general housework	133.8	131.4	131.5	131.9	132.3	133.0	133.7	134.5	134.9	135.1	135.3	136.0	136.1	136.4
Baby sitter service	130.0	126.3	127.8	127.9	128.3	128.4	130.3	130.5	130.7	132.1	132.3	132.4	132.8	133.4
Postal charges	138.1	121.0	121.0	121.0	121.0	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.5
Laundry, flatwork	133.3	129.7	129.9	131.1	132.1	132.8	133.6	133.9	134.6	135.0	135.4	135.6	136.3	136.4
Licensed day care service, preschool child	118.2	116.9	116.9	117.5	117.4	117.5	117.9	118.0	119.0	119.1	119.4	119.1	119.4	119.4
Washing machine repair	135.3	129.5	131.0	132.0	132.9	134.9	136.8	137.3	137.3	137.4	137.6	138.2	138.2	138.1
APPAREL AND UPKEEP	119.8	117.6	118.1	118.6	119.1	120.2	120.1	119.3	119.0	120.6	121.6	121.9	121.8	120.2
Men's and boys'	120.3	118.0	117.9	119.4	120.3	121.2	121.4	119.9	119.6	120.8	121.8	121.8	121.6	119.9
Men's:														
Topcoats, wool or all weather coats, polyester blend [1]	122.3	122.3	119.9	119.7	------	------	------	------	------	121.9	123.4	124.4	124.2	121.2
Suits, year round weight	129.0	125.0	124.8	127.4	129.1	129.7	130.0	127.1	127.7	130.5	132.4	133.0	131.5	126.5
Suits, tropical weight [1]	129.2	------	------	127.8	130.1	131.6	131.4	125.1	------	------	------	------	------	------
Jackets, lightweight	112.5	109.9	111.2	113.9	111.9	112.6	112.9	112.2	112.1	112.2	112.9	114.2	114.3	113.0
Slacks, wool or blend	116.8	115.4	115.0	115.9	116.8	117.3	117.9	117.3	115.4	118.2	118.2	117.6	116.8	115.7
Slacks, cotton or blend	132.3	129.1	130.9	131.5	132.5	133.0	133.3	131.0	130.9	132.5	133.9	134.7	134.7	134.0
Trousers, work, cotton	113.0	110.7	111.0	112.2	112.7	112.8	113.2	113.5	113.7	113.7	114.0	114.0	114.0	114.1
Shirt, work, cotton	113.3	110.5	111.1	112.0	112.8	113.4	113.4	113.9	114.0	114.2	114.6	114.8	114.5	114.5
Shirt, business, cotton	112.7	109.3	110.4	113.0	112.4	113.7	113.8	113.1	112.4	113.0	113.0	114.4	114.4	112.6
T-shirts, chiefly cotton	119.0	119.8	119.0	119.0	118.8	119.2	119.4	119.4	119.0	118.8	118.9	118.4	118.2	118.3
Socks, cotton or manmade fibers	115.5	114.8	115.3	116.2	114.8	116.2	116.4	114.9	114.9	115.2	115.7	115.7	115.8	114.3
Handkerchiefs, cotton	114.9	113.6	113.8	114.2	113.0	115.3	115.4	115.2	115.2	115.4	115.7	115.7	116.1	116.3
Boys':														
Coats, all purpose, cotton or cotton blend [1]	118.3	119.5	116.5	115.9	------	------	------	------	------	------	119.2	120.3	118.3	115.8
Sport coats, wool or blend [1]	122.0	118.8	------	------	------	------	------	------	------	123.5	128.1	118.3	121.3	118.1
Dungarees, cotton or blend	122.5	119.9	120.3	120.9	121.2	122.0	122.6	122.6	122.7	123.2	123.2	125.2	125.8	126.4
Undershorts, cotton	119.5	118.7	119.0	119.8	119.9	120.0	119.4	119.1	119.9	119.6	119.6	119.6	119.6	119.9
Women's and girls'	120.1	117.4	118.5	118.3	118.7	120.4	119.9	119.3	118.2	121.3	122.7	123.4	123.2	120.2
Women's:														
Coats, heavyweight, wool or wool blend [1]	122.9	111.9	------	------	------	------	------	------	------	121.7	127.2	127.7	126.0	116.2
Skirts, wool or wool blend [1]	131.7	124.7	114.4	------	------	------	------	------	------	131.1	135.7	142.1	142.1	135.0
Skirts, cotton or polyester cotton or manmade fibers	114.0	------	------	113.1	115.0	119.4	118.7	114.7	102.9	------	------	------	------	------
Blouses, cotton	121.9	120.0	123.4	122.0	123.6	123.5	123.6	121.8	119.1	122.1	120.0	122.2	121.6	117.6
Dresses, street, chiefly manmade fiber	127.6	127.8	128.1	125.9	126.7	126.6	126.4	124.5	126.8	127.5	129.4	131.1	130.1	129.6
Dresses, street, wool or wool blend [1]	140.4	130.8	------	------	------	------	------	------	------	140.3	144.3	143.8	142.7	138.4

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Groups, subgroups, and selected items													
	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
APPAREL AND UPKEEP—Continued														
Slips, nylon	110.7	110.5	110.7	110.6	110.9	110.5	109.8	110.9	111.1	111.1	111.1	110.4	111.2	111.2
Panties, acetate or nylon	115.2	113.0	114.6	115.2	114.7	115.0	115.2	115.7	115.7	115.8	115.4	116.2	116.2	116.7
Girdles, manmade blend	116.2	114.4	115.2	114.6	114.9	114.7	116.1	116.3	116.8	117.1	117.7	117.9	118.1	116.1
Brassieres, nylon lace	120.9	117.7	118.2	119.0	120.6	120.6	120.0	121.2	121.2	122.2	123.0	123.4	123.4	122.3
Hose, or panty hose, nylon, seamless	98.9	100.1	100.3	99.7	98.9	99.4	98.0	99.2	98.6	97.9	98.1	98.2	98.3	97.4
Anklets or knee-length socks, various fibers	115.8	116.4	116.5	116.3	116.5	116.7	115.8	115.6	114.8	114.8	114.6	115.6	116.4	115.9
Gloves, fabric, nylon or cotton	109.6	108.8	109.3	109.3	109.4	109.8	110.0	110.5	109.7	109.9	109.5	109.7	109.8	110.2
Handbags, rayon faille or plastic	132.4	127.1	127.9	128.1	130.2	132.3	131.9	132.1	134.2	135.6	134.8	136.8	138.2	138.9
Girls:														
Raincoats, vinyl plastic or chiefly cotton [1]	116.5	115.8	113.3	113.2	-------	-------	-------	-------	-------	115.6	118.5	119.5	119.3	117.1
Skirts, wool or wool blend [1]	106.8	103.9	-------	-------	-------	-------	-------	-------	-------	105.2	109.0	107.1	108.6	100.2
Dresses, cotton, manmade fibers or blends	107.4	101.3	103.3	104.7	107.9	111.1	109.6	105.2	107.4	109.3	110.3	109.4	109.3	108.9
Slacks, cotton [1]	131.3	130.4	131.1	-------	-------	-------	-------	-------	-------	-------	131.8	131.5	131.7	131.1
Slips, cotton blend	110.4	108.6	109.0	110.6	110.5	110.2	110.5	110.4	109.8	111.0	110.3	111.3	111.9	111.7
Handbags	129.0	127.4	127.6	127.9	129.5	131.2	130.3	129.7	126.9	128.3	129.3	130.0	129.3	124.1
Footwear	121.5	119.8	119.9	120.5	121.1	121.7	121.7	120.9	121.5	122.2	122.7	132.2	123.1	122.7
Men's:														
Shoes, street (oxford or buckle strap)	119.6	117.8	117.8	118.6	119.1	119.7	120.2	119.4	119.2	120.9	119.8	121.1	121.0	119.7
Shoes, work, high	118.7	116.5	116.7	117.4	117.9	118.1	118.5	118.9	119.5	120.0	120.1	120.4	120.6	121.1
Women's:														
Shoes, street, pump	123.4	121.9	122.2	123.0	123.4	123.9	123.7	122.0	122.9	123.2	124.5	125.2	125.1	124.3
Shoes, evening, pump	120.2	120.1	120.1	120.4	119.9	120.5	119.3	118.8	119.6	120.3	121.0	121.0	121.1	120.7
Shoes, casual, pump	124.1	122.3	121.2	122.3	123.4	125.2	126.2	122.9	123.5	124.3	125.7	126.0	125.8	125.1
Houseslippers, scuff	121.9	120.6	119.7	119.9	120.4	121.0	121.0	122.5	123.5	123.4	123.5	123.6	123.4	124.0
Children's:														
Shoes, oxford	122.3	119.3	120.1	120.7	122.5	122.4	122.9	122.1	122.4	122.8	123.8	124.4	124.1	122.4
Sneakers, boys', oxford type	118.8	116.7	117.2	117.8	118.4	118.8	118.9	119.5	119.5	119.5	119.7	119.9	120.3	121.0
Dress shoes, girls', strap or pump	125.8	122.4	123.0	123.5	125.5	125.6	126.2	124.4	126.4	127.3	128.4	128.6	128.4	128.6
Miscellaneous apparel:														
Diapers, cotton gauze or disposable	112.0	110.3	110.6	111.2	110.9	111.8	111.8	112.3	112.5	112.7	112.8	113.3	113.3	113.0
Yard goods, polyester blend	122.1	121.4	121.8	121.8	122.0	122.5	123.0	122.4	121.9	122.1	122.1	122.3	121.9	120.6
Apparel services:														
Drycleaning, men's suits and women's dresses	116.6	115.1	115.7	116.1	116.3	117.1	117.1	116.8	116.8	117.1	117.2	117.0	117.1	117.2
Automatic laundry service	113.8	114.8	114.8	114.9	115.1	112.6	112.8	112.9	113.2	113.3	113.3	113.8	113.9	113.7
Laundry, men's shirts	119.1	118.2	118.4	118.7	118.8	119.0	119.3	119.1	119.2	119.1	119.2	119.2	120.4	120.5
Tailoring charges hem adjustment	128.5	126.0	126.7	126.9	127.2	127.6	127.7	128.3	129.0	129.6	130.0	131.2	131.6	131.7
Shoe repairs, women's heel lift	112.0	109.3	109.7	109.7	109.9	112.3	113.0	112.3	112.4	113.5	114.0	114.0	113.8	113.8
TRANSPORTATION	118.6	117.5	117.5	117.8	118.1	118.8	119.6	119.5	r119.3	r118.6	r119.3	118.8	118.6	119.0
Private	116.6	115.8	115.8	115.9	116.2	117.0	117.6	117.4	r117.3	r116.4	r117.2	116.6	116.3	116.4
Automobiles, new	112.0	115.4	115.2	114.3	113.8	113.9	113.9	113.8	r109.3	r105.6	r109.1	109.6	110.4	112.2
Automobiles, used	110.2	107.0	105.5	106.8	109.8	112.8	114.1	113.5	112.5	111.6	111.7	110.2	107.2	105.3
Gasoline, regular and premium	106.3	107.7	106.0	105.8	103.7	104.0	104.9	104.1	107.9	108.7	108.8	106.9	107.3	106.7
Motor oil, premium	120.0	117.3	117.8	118.3	119.0	119.3	119.9	120.5	121.0	121.5	121.7	121.8	121.9	122.3
Tires, new, tubeless	116.3	115.4	115.0	115.1	114.6	114.8	114.8	116.2	117.3	117.5	117.6	118.8	118.3	117.9
Auto repairs and maintenance	129.2	124.4	125.8	127.0	127.9	128.4	129.4	130.3	131.0	131.2	131.3	131.6	131.9	133.1
Auto insurance rates	141.4	135.8	139.9	140.1	141.9	142.1	142.5	142.7	142.9	142.9	141.8	141.8	141.8	141.0
Auto registration	123.2	121.7	121.7	121.7	123.8	123.8	123.8	123.8	123.7	123.7	123.7	123.7	123.7	127.1
Public	137.7	133.9	134.4	136.0	136.4	136.4	139.0	139.0	139.1	139.3	139.3	139.3	139.7	143.4
Local transit fares	143.4	140.5	141.2	143.1	143.7	143.7	143.8	143.8	144.0	144.0	144.0	144.0	144.4	150.2
Taxicab fares	126.5	119.0	119.0	119.1	119.1	119.1	131.7	131.7	131.7	131.7	131.7	131.7	132.8	132.8
Railroad fares, coach	126.8	124.7	125.1	126.2	126.2	126.2	127.4	127.4	127.4	127.7	127.7	127.6	128.2	128.2
Airplane fares, chiefly coach	126.9	121.9	121.9	124.1	124.1	124.1	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6
Bus fares, intercity	132.7	128.9	128.9	130.6	130.6	130.6	132.9	132.9	132.9	135.9	135.9	135.9	136.1	136.1
HEALTH AND RECREATION	122.2	119.8	120.2	120.6	121.2	121.6	122.1	122.6	123.1	123.6	123.5	123.7	123.9	124.3
Medical care	128.4	124.9	125.8	126.8	127.5	128.1	128.6	129.3	130.0	130.4	129.6	129.7	130.1	130.5
Drugs and prescriptions	105.4	104.5	104.9	104.9	105.1	105.5	105.7	105.5	105.6	105.7	105.6	105.7	105.6	105.5
Over-the-counter items	110.2	109.2	109.8	109.9	110.4	110.7	111.0	110.0	110.2	110.3	110.4	110.5	110.2	110.3
Multiple vitamin concentrates	96.6	97.9	97.9	98.2	98.1	97.6	97.2	95.4	95.3	95.1	95.4	95.4	95.1	95.1
Aspirin compounds	114.1	112.3	112.9	112.9	113.7	114.0	114.5	114.3	114.2	115.1	115.8	115.4	114.0	114.1
Liquid tonics	101.3	101.8	101.6	101.7	101.7	101.4	101.5	101.2	101.3	100.7	100.9	100.8	100.8	100.8
Adhesive bandages, package	122.6	118.2	120.2	120.9	122.6	123.1	124.1	123.2	123.8	124.1	123.6	123.6	124.1	123.8
Cold tablets or capsules	111.3	108.7	109.2	109.8	110.4	111.6	111.8	111.8	112.2	112.0	112.0	113.2	112.9	112.8
Cough syrup	112.4	113.8	114.0	113.3	112.9	113.4	113.8	111.2	111.3	111.4	111.4	111.2	111.3	111.7
Prescriptions	101.3	100.5	100.8	100.7	100.7	101.1	101.2	101.6	101.7	101.8	101.6	101.6	101.7	101.5
Anti-infectives	80.2	81.7	81.6	80.7	80.0	80.2	80.2	80.4	80.0	79.9	79.6	79.4	79.1	78.9
Sedatives and hypnotics	122.9	120.4	120.9	121.4	121.9	122.4	122.4	123.9	123.8	124.2	123.8	124.6	124.8	124.7
Ataractics	101.7	101.0	101.3	101.4	101.2	100.8	100.7	101.2	102.3	102.6	102.5	102.6	102.6	102.6
Anti-spasmodics	107.1	105.0	105.6	105.7	106.0	107.4	107.7	108.1	108.1	108.1	107.9	107.8	108.0	107.9
Cough preparations	126.0	123.4	124.2	124.5	124.8	125.8	125.8	126.8	127.3	127.9	127.4	127.2	127.2	127.1
Cardiovasculars and antihypertensives	111.1	109.1	109.5	109.8	110.2	111.2	111.6	111.7	112.0	112.0	112.0	112.0	112.1	112.0
Analgesics, internal	107.8	106.6	107.2	107.4	107.6	107.8	107.9	108.2	108.2	108.3	107.7	107.9	108.3	108.2
Anti-obesity	114.9	111.4	111.5	111.6	112.9	114.8	115.3	115.9	116.6	117.1	117.0	117.0	117.3	117.7
Hormones	94.9	95.3	95.1	94.9	95.0	94.9	94.6	94.6	94.8	94.9	94.7	94.6	94.8	94.0

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
HEALTH AND RECREATION—Continued														
Professional services:														
Physicians' fee	129.8	125.9	126.6	128.0	128.5	129.2	129.9	130.3	131.2	131.5	131.7	132.0	132.2	132.3
General physician, office visits	131.4	127.6	128.2	129.9	130.6	130.9	131.7	132.2	132.7	133.0	133.0	133.1	133.3	133.3
General physician, house visits	131.0	126.3	127.0	128.7	129.2	130.0	131.4	131.6	132.0	133.6	133.9	134.1	134.6	134.8
Obstetrical cases	129.0	125.2	125.7	126.2	126.9	128.8	128.9	129.0	130.9	131.3	131.5	131.5	131.6	132.0
Pediatric care, office visits	132.0	126.9	128.5	130.1	130.3	132.2	132.4	132.6	133.4	133.5	133.6	134.7	135.3	135.3
Psychiatrist, office visits	124.8	122.2	123.0	123.4	123.6	124.1	124.7	125.1	125.7	125.7	125.9	127.2	127.3	127.9
Herniorrhaphy, adult	123.4	120.7	121.1	121.6	121.8	122.7	123.3	123.6	124.3	124.4	125.2	126.2	126.4	126.8
Tonsillectomy and adenoidectomy	125.2	121.2	121.3	122.3	122.9	124.1	124.3	125.0	128.0	128.0	128.2	128.7	128.7	128.7
Dentists' fees	127.0	123.7	124.2	124.8	125.6	126.0	126.4	127.5	127.9	128.2	129.6	129.8	130.0	130.5
Fillings, adult, amalgam, one surface	128.0	124.7	125.0	125.5	126.4	126.8	127.3	128.7	129.3	129.5	131.0	131.0	131.3	131.8
Extractions, adult	126.9	123.8	124.5	125.2	126.1	126.4	126.5	127.3	127.4	127.7	128.9	129.4	129.6	130.4
Dentures, full uppers	124.9	121.5	122.4	122.9	123.4	123.8	124.4	125.1	125.6	126.0	127.7	127.7	127.7	128.2
Other professional services:														
Examination, prescription, and dispensing of eyeglasses	120.3	116.7	117.6	118.1	118.6	119.6	120.0	120.5	121.9	122.1	122.6	122.9	122.9	123.1
Routine laboratory tests	116.1	113.7	114.5	114.7	114.9	115.2	115.3	115.7	117.2	117.6	117.8	117.8	118.6	118.7
Hospital service charges:														
Daily service charges	160.8	153.6	155.3	157.1	158.8	159.6	160.5	162.5	163.5	164.4	164.6	164.6	165.5	167.1
Semiprivate rooms	163.1	155.5	157.4	159.2	161.0	161.7	162.6	164.8	165.8	166.8	167.0	167.0	167.9	169.6
Private rooms	157.5	150.8	152.3	154.0	155.6	156.4	157.3	159.0	160.0	160.9	161.1	161.1	162.0	163.5
Operating room charges	156.2	149.9	151.6	154.0	154.5	155.2	155.3	157.8	156.7	158.0	159.1	159.0	162.6	163.5
X-ray, diagnostic series, upper G.I.	124.9	120.6	122.0	122.5	124.4	124.8	125.4	125.9	126.4	126.5	126.5	126.6	126.9	127.7
Personal care	116.8	115.3	115.4	115.8	116.3	116.5	116.8	117.1	117.5	117.6	117.9	117.9	117.9	118.1
Toilet goods	113.8	112.2	112.3	112.8	113.5	113.5	113.8	114.2	114.5	114.6	114.9	114.8	114.8	115.1
Toothpaste, standard dentifrice	107.7	106.1	106.5	107.3	107.5	107.3	107.6	107.2	107.7	108.6	108.8	108.3	109.3	109.9
Toilet soap, hard milled	114.1	110.2	108.5	109.6	111.8	112.2	112.4	115.4	116.8	115.2	118.4	118.8	119.7	119.7
Hand lotions, liquid	119.5	119.3	120.0	119.8	120.3	118.1	118.9	117.5	119.0	119.7	120.5	120.0	120.4	121.2
Shaving cream, aerosol	106.6	104.2	105.3	105.0	106.6	107.1	107.1	107.3	106.9	107.2	107.1	107.8	107.3	107.1
Face powder, pressed	123.5	122.5	123.9	124.0	123.9	123.9	124.1	123.8	124.0	124.1	123.9	122.4	122.0	122.0
Deodorants, aerosol	105.6	104.7	105.2	105.5	104.9	105.1	105.5	105.7	106.0	106.4	106.3	105.9	105.9	104.9
Cleansing tissues	123.3	121.9	121.4	122.6	123.2	124.4	124.7	124.8	124.2	124.1	122.6	123.6	121.8	124.4
Home permanent wave sets	110.9	109.5	109.4	109.8	110.4	110.7	111.2	111.7	111.5	111.7	111.8	111.7	111.6	111.3
Personal care services	120.0	118.6	118.6	119.0	119.3	119.6	119.9	120.2	120.6	120.8	121.0	121.2	121.2	121.3
Men's haircuts	122.6	121.6	121.5	121.7	121.7	121.8	122.2	122.5	123.2	123.4	123.7	123.7	123.9	123.9
Beauty shop services	118.2	116.4	116.5	117.1	117.6	118.0	118.4	118.5	118.8	118.9	119.1	119.4	119.2	119.4
Reading and recreation	119.3	117.3	117.5	117.7	118.4	118.9	119.3	119.6	119.7	120.5	120.5	120.8	121.1	121.4
Recreational goods	106.6	105.7	105.6	105.8	106.2	106.4	106.7	106.8	106.9	107.1	107.2	107.2	107.3	107.4
TV sets, portable and console	100.1	100.3	100.1	99.9	100.1	100.0	100.1	99.9	99.9	100.0	100.2	100.3	100.3	99.9
TV replacement tubes	122.5	121.3	121.1	121.4	121.6	121.9	122.2	122.2	122.1	123.4	124.1	124.5	124.7	126.4
Radios, portable and table model	98.5	99.1	98.6	98.3	98.3	98.4	98.5	98.4	98.4	98.5	98.1	98.4	98.4	98.4
Tape recorders, portable	94.2	95.7	95.6	95.8	95.1	94.7	94.3	94.1	93.6	93.0	92.7	92.5	93.1	93.4
Phonograph records, stereophonic	103.5	99.5	99.5	99.5	100.5	102.3	103.1	104.9	105.8	106.5	106.5	106.5	107.1	107.2
Movie cameras, Super 8, zoom lens	89.4	90.4	90.3	90.0	88.8	89.3	89.2	89.3	89.3	89.1	89.2	88.9	88.9	88.3
Film, 35mm, color	108.3	107.7	108.1	108.1	108.1	108.1	108.5	108.6	108.4	108.4	108.3	108.5	108.7	108.6
Bicycle, boys'	112.6	109.8	110.2	110.4	111.9	112.5	113.4	113.9	114.0	113.7	114.0	113.6	113.3	113.8
Tricycles	111.2	109.4	109.6	110.3	111.1	111.3	111.2	111.6	111.9	112.0	111.9	111.7	112.2	112.6
Recreational services	125.2	123.1	123.2	123.3	124.0	125.0	126.0	126.1	126.1	126.3	126.2	126.6	126.4	126.9
Indoor movie admissions	137.6	135.1	135.5	136.1	136.6	138.3	138.4	138.8	138.2	138.9	138.3	138.7	137.9	139.0
Drive-in movie admissions, adult	140.1	137.1	135.9	135.9	138.0	139.3	141.5	141.9	142.5	142.5	142.3	142.3	142.5	143.1
Bowling fees, evening	116.3	115.3	115.5	115.9	116.4	116.0	116.5	116.3	116.1	116.1	116.7	117.7	117.6	117.9
Golf greens fees [1]	127.5	------	------	([9])	124.0	125.8	128.5	128.6	128.8	128.4	128.3	------	------	------
TV repairs, picture tube replacement	98.0	96.9	97.2	97.5	97.8	98.1	98.3	98.2	98.1	98.5	98.4	98.5	98.6	98.6
Film developing, color	116.7	114.5	114.7	114.7	114.7	116.2	117.0	117.4	117.7	118.3	118.1	118.3	118.2	118.2
Reading and education:														
Newspapers, street sale and delivery	129.6	126.8	127.7	128.2	129.3	129.8	130.0	130.4	130.5	130.6	130.5	130.6	130.7	130.7
Piano lessons, beginner	121.0	120.5	120.6	120.8	120.8	120.8	120.6	120.7	120.7	121.4	121.5	121.5	121.5	121.6
Other goods and services	120.9	118.9	119.1	119.4	119.7	119.9	120.3	121.2	121.8	122.4	122.6	122.8	123.0	123.5
Tobacco products	126.4	124.0	124.1	124.1	124.3	124.7	125.3	126.9	127.9	128.9	128.9	129.0	129.2	130.2
Cigarettes, nonfilter tip, regular size	127.9	125.5	125.5	125.6	125.9	126.3	126.9	128.5	129.6	130.2	130.2	130.3	130.6	131.6
Cigarettes, filter, king	128.1	125.4	125.5	125.5	125.7	126.1	126.9	128.6	129.6	130.8	130.8	130.8	131.1	132.2
Cigars, domestic, regular	107.1	105.8	105.7	105.8	105.9	105.9	106.0	106.3	107.3	108.5	108.7	109.3	109.5	109.7
Alcoholic beverages	116.9	115.2	115.4	115.8	116.2	116.4	116.7	117.0	117.4	117.6	117.9	118.3	118.4	118.5
Beer	112.9	111.3	111.6	112.1	112.8	112.7	113.2	113.3	113.3	113.4	113.6	113.7	113.8	113.5
Whiskey, spirit blended and straight bourbon	106.4	105.8	105.8	105 8	105.9	106.0	106.2	106.3	107.0	107.0	106.8	106.9	107.0	107.4
Wine, dessert and table	122.3	118.5	119.0	119.8	120.6	121.2	121.8	123.0	123.9	124.5	124.7	124.9	125.1	125.3
Beer, away from home	126.4	124.7	124:7	125.1	125.1	125.6	125.7	126.2	126.8	127.1	127.7	128.8	128.8	129.3
Financial and miscellaneous personal expenses:														
Funeral services, adult	117.2	114.5	115.6	115.9	116.2	116.3	116.8	117.7	118.3	118.4	118.8	119.1	119.2	119.5
Bank service charges, checking accounts	110.6	111.0	111.1	111.3	111.4	111.5	110.7	110.8	110.9	110.9	109.3	109.3	109.5	109.7
Legal services, will	135.5	132.8	133.1	133.3	133.3	133.3	133.3	133.6	133.9	137.4	139.9	140.2	141.4	141.7

[1] Priced only in season.

[2] This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.

[3] March 1970=100.

[4] Discontinued.

[5] This item is a replacement for dining room suites, which was discontinued after March 1970.

[6] This item is a replacement for box springs, which was discontinued after April 1970.

[8] December 1971=100.

[9] Not available.

NOTE: For a description of the general method of computing the monthly Consumer Price Index, see **BLS Handbook of Methods for Surveys and Studies** (BLS Bulletin 1458, 1966), chapter 10.

[r]=revised. These figures have been recalculated to reflect the retroactive repeal of the automobile excise tax. Indexes for August recalculated to reflect adjustments for refunds on new cars in the August 15–31 period. Indexes for services reflect revision of auto finance charges which are incurred to change

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

[1967 = 100 unless otherwise specified][2]

Area[2]	Annual average 1971	1971												1972
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
All items														
U.S. city average[3]	121.3	119.2	119.4	119.8	120.2	120.8	121.5	121.8	r122.1	r122.2	r122.4	122.6	123.1	123.2
Atlanta, Ga.	121.7	(4)	(4)	120.4	(4)	(4)	122.3	(4)	(4)	r122.0	(4)	(4)	123.5	(4)
Baltimore, Md.	123.4	(4)	(4)	122.1	(4)	(4)	123.5	(4)	(4)	r124.4	(4)	(4)	125.1	(4)
Boston, Mass.	-------	120.7	(4)	(4)	121.7	(4)	(4)	122.9	(4)	(4)	r124.5	(4)	(4)	124.2
Buffalo, N.Y.	-------	(4)	119.6	(4)	(4)	121.4	(4)	(4)	r122.8	(4)	(4)	123.1	(4)	(4)
Chicago, Ill.-Northwestern Ind.	120.8	119.1	119.4	119.9	120.2	120.6	120.9	120.9	r121.5	r121.7	r121.7	121.8	122.3	122.1
Cincinnati, Ohio-Kentucky	120.7	(4)	(4)	119.8	(4)	(4)	120.7	(4)	(4)	r121.4	(4)	(4)	121.9	(4)
Cleveland, Ohio	-------	(4)	121.5	(4)	(4)	122.0	(4)	(4)	r123.2	(4)	(4)	124.4	(4)	(4)
Dallas, Tex.	-------	(4)	119.8	(4)	(4)	120.4	(4)	(4)	r122.7	(4)	(4)	122.4	(4)	(4)
Detroit, Mich.	121.7	120.3	120.0	120.1	120.1	120.9	121.9	121.8	r122.8	r122.8	r122.8	123.4	123.7	124.2
Honolulu, Hawaii	118.9	(4)	(4)	116.7	(4)	(4)	118.5	(4)	(4)	r121.2	(4)	(4)	121.1	(4)
Houston, Tex.	-------	119.3	(4)	(4)	119.5	(4)	(4)	121.3	(4)	(4)	r122.4	(4)	(4)	123.2
Kansas City, Mo.-Kansas	120.5	(4)	(4)	119.2	(4)	(4)	120.6	(4)	(4)	r121.5	(4)	(4)	121.4	(4)
Los Angeles-Long Beach, Calif.	118.5	116.7	116.2	116.9	116.7	118.1	118.7	119.1	r119.5	r120.0	r120.3	120.1	120.1	120.2
Milwaukee, Wis.	-------	(4)	119.0	(4)	(4)	119.1	(4)	(4)	r121.4	(4)	(4)	120.9	(4)	(4)
Minneapolis-St. Paul, Minn.	-------	120.1	(4)	(4)	120.3	(4)	(4)	121.9	(4)	(4)	r123.4	(4)	(4)	123.8
New York, N.Y.-Northeastern N.J.	125.9	122.5	123.5	124.3	124.6	125.2	126.1	126.8	r126.9	r127.3	r127.5	127.6	128.0	128.4
Philadelphia, Pa.-N.J.	123.5	121.3	121.8	122.2	122.6	123.4	124.1	123.7	r123.6	r124.6	r125.0	124.7	125.0	124.7
Pittsburgh, Pa.	-------	119.2	(4)	(4)	120.9	(4)	(4)	121.8	(4)	(4)	r122.9	(4)	(4)	123.2
Portland, Oreg.-Wash.[5]	-------	114.9	(4)	(4)	114.7	(4)	(4)	116.2	(4)	(4)	r117.6	(4)	(4)	118.1
St. Louis, Mo.-Ill.	119.6	(4)	(4)	118.2	(4)	(4)	119.9	(4)	(4)	r120.5	(4)	(4)	120.9	(4)
San Diego, Calif.	-------	(4)	118.2	(4)	(4)	119.5	(4)	(4)	r120.7	(4)	(4)	120.9	(4)	(4)
San Francisco-Oakland, Calif.	120.2	(4)	(4)	119.1	(4)	(4)	119.9	(4)	(4)	r120.9	(4)	(4)	121.8	(4)
Scranton, Pa.[5]	-------	(4)	118.9	(4)	(4)	120.8	(4)	(4)	r123.2	(4)	(4)	122.6	(4)	(4)
Seattle, Wash.	-------	(4)	114.6	(4)	(4)	115.5	(4)	(4)	r117.6	(4)	(4)	117.6	(4)	(4)
Washington, D.C.-Md.-Va.	-------	(4)	120.9	(4)	(4)	122.2	(4)	(4)	r123.5	(4)	(4)	124.2	(4)	(4)
Food														
U.S. city average	118.4	115.3	115.5	115.9	117.0	117.8	118.2	119.2	120.0	119.1	118.9	119.0	120.3	120.3
Atlanta, Ga.	118.1	115.9	115.5	115.4	116.6	118.3	118.1	118.8	119.3	119.0	118.9	118.7	119.6	120.6
Baltimore, Md.	121.0	117.5	118.1	118.6	119.8	120.1	120.2	121.5	122.6	122.2	121.8	121.7	123.2	121.9
Boston, Mass.	-------	116.8	116.9	117.7	118.1	118.7	117.8	118.6	119.2	118.5	118.4	118.8	119.9	119.5
Buffalo, N.Y.	-------	116.5	116.3	116.6	118.4	119.9	120.1	121.0	122.0	119.6	119.8	119.8	120.9	121.1
Chicago, Ill.-Northwestern Ind.	118.5	115.2	115.6	115.7	117.3	118.0	117.7	119.8	120.7	119.4	118.9	119.2	119.6	119.8
Cincinnati, Ohio-Kentucky	118.4	115.6	115.2	116.3	117.0	117.8	118.5	119.3	119.7	118.7	118.9	118.9	120.7	120.5
Cleveland, Ohio	-------	119.2	117.7	118.6	119.3	119.5	119.3	119.4	119.0	118.2	118.1	118.4	119.2	118.9
Dallas, Tex.	-------	114.2	115.0	115.2	116.6	116.9	117.3	117.9	119.5	118.6	118.7	118.5	120.6	120.8
Detroit, Mich.	117.3	114.6	114.3	114.6	115.4	116.2	117.5	118.6	119.4	118.4	117.8	117.8	119.2	119.7
Honolulu, Hawaii	118.1	114.1	114.7	115.4	116.2	116.8	116.7	116.6	119.6	121.4	121.8	120.4	120.9	120.7
Houston, Tex.	-------	116.0	116.5	115.6	116.8	117.8	118.3	118.7	120.5	120.1	120.2	120.0	121.5	121.9
Kansas City, Mo.-Kansas	118.6	115.9	116.2	116.1	117.1	117.5	117.5	118.8	120.3	120.0	119.5	119.8	120.8	120.9
Los Angeles-Long Beach, Calif.	114.9	113.0	112.9	112.9	114.0	114.3	114.6	115.2	115.8	115.1	115.3	115.8	116.6	117.5
Milwaukee, Wis.	-------	112.4	112.6	113.1	114.1	114.9	115.7	116.7	117.6	116.8	116.3	116.3	117.2	117.0
Minneapolis-St. Paul, Minn.	-------	116.9	117.0	115.6	116.8	119.0	119.3	120.2	122.1	119.5	119.1	119.2	120.6	120.5
New York, N.Y.-Northeastern N.J.	123.1	118.9	119.3	120.1	121.4	122.4	122.8	123.9	124.9	124.2	124.3	124.3	125.2	125.2
Philadelphia, Pa.-N.J.	120.1	116.3	117.0	117.8	118.9	119.3	119.6	120.8	121.8	121.4	121.0	120.6	122.0	122.2
Pittsburgh, Pa.	-------	115.9	116.1	116.6	118.1	118.4	119.0	119.9	120.1	119.4	119.0	119.4	120.9	120.9
Portland, Oreg.-Wash.[5]	-------	-------	111.7	-------	-------	113.6	-------	-------	-------	-------	112.5	-------	-------	-------
St. Louis, Mo.-Ill.	118.0	115.4	115.0	115.8	117.1	117.8	117.9	118.3	120.0	118.8	118.3	118.5	119.4	119.7
San Diego, Calif.	-------	114.6	114.8	115.6	116.2	116.2	117.3	117.9	118.2	117.8	117.7	118.6	119.5	120.0
San Francisco-Oakland, Calif.	116.1	113.6	113.7	114.5	114.9	115.7	115.9	116.7	116.6	115.5	116.3	116.9	118.9	119.1
Scranton, Pa.[5]	-------	-------	-------	117.2	-------	-------	120.6	-------	122.8	-------	-------	119.6	-------	-------
Seattle, Wash.	-------	114.0	113.9	114.0	114.4	114.7	116.0	116.5	117.0	116.8	116.3	116.5	r118.2	118.4
Washington, D.C.-Md.-Va.	-------	116.3	116.4	117.1	118.5	119.5	120.0	121.4	122.2	121.3	121.4	121.2	122.0	120.9

[1] See table 25. 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 (old market basket components).

[6] In the March and April 1971 Monthly Labor Review, these indexes were on a 1957–59=100 base. Indexes are now on a 1967=100 base.

r=revised. These figures have been recalculated to reflect the retroactive repeal of the automobile excise tax. Indexes for August recalculated to reflect adjustments for refunds on new cars in the August 15–31 period.

27. Wholesale Price Index,[1] by group and subgroup of commodities

[1967 = 100 unless otherwise specified][2]

Code	Commodity group	Annual average 1971	1971											1972	
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	All commodities	113.9	112.8	113.0	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	**117.3**
	All commodities (1957–59=100)	120.9	119.7	119.9	120.2	120.7	121.3	121.6	121.9	121.5	121.4	121.5	122.4	123.4	**124.5**
	Farm products and processed foods and feeds	113.8	113.6	113.4	113.3	114.3	115.4	115.0	114.6	113.0	113.0	113.6	115.9	117.4	**119.6**
	Industrial commodities	114.0	112.5	112.8	113.3	113.7	113.9	114.5	115.1	115.0	115.0	114.9	115.3	115.9	**116.5**
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	**Farm products**	112.9	113.9	113.0	113.0	114.0	116.0	113.4	113.2	110.5	111.3	112.2	115.8	117.8	**120.7**
01-1	Fresh and dried fruits and vegetables	120.1	118.3	125.3	120.8	127.5	136.1	109.3	115.9	103.6	115.8	127.1	126.3	124.9	**127.5**
01-2	Grains	100.9	111.7	108.4	106.8	107.2	109.4	102.5	92.8	89.0	88.3	87.8	95.3	94.1	**93.0**
01-3	Livestock	118.3	118.9	114.9	116.9	119.0	118.9	121.3	121.3	119.1	120.9	121.0	124.7	132.2	**139.6**
01-4	Live poultry	100.3	100.0	100.1	99.5	101.3	108.1	121.1	100.8	102.8	93.5	92.3	87.2	94.3	**105.4**
01-5	Plant and animal fibers	92.8	88.0	88.9	89.4	90.3	92.3	92.6	93.4	95.2	96.3	97.3	102.5	109.5	**113.2**
01-6	Fluid milk	118.8	117.7	118.1	119.7	118.7	119.1	119.5	119.3	119.2	119.2	118.8	119.0	120.5	**120.5**
01-7	Eggs	100.8	97.6	101.2	104.4	92.4	98.0	89.4	110.1	107.8	92.4	88.5	114.4	92.6	**91.9**
01-8	Hay, hayseeds, and oilseeds	109.2	108.6	107.6	104.8	106.8	109.9	114.4	114.3	108.9	107.9	109.0	109.2	108.7	**110.2**
01-9	Other farm products	115.4	119.5	116.1	114.4	113.6	113.7	113.3	113.9	115.6	115.4	111.8	117.3	118.0	**116.8**
02	**Processed foods and feeds**	114.3	113.3	113.7	113.5	114.5	114.9	116.0	115.4	114.6	114.1	114.4	115.9	117.2	**118.8**
02-1	Cereal and bakery products	111.4	111.1	111.5	111.5	111.5	111.5	111.5	111.4	111.3	111.3	111.5	111.6	112.2	**112.4**
02-2	Meats, poultry, and fish	116.0	115.2	112.9	113.3	116.4	116.7	119.6	117.7	117.5	116.9	117.1	120.4	125.4	**130.5**
02-3	Dairy products	115.4	112.3	115.0	115.5	116.2	116.1	116.2	115.4	115.4	116.4	116.3	117.4	117.3	**117.5**
02-4	Processed fruits and vegetables	114.3	111.5	111.9	113.0	114.0	115.4	115.9	116.2	115.7	115.3	115.4	115.8	116.0	**116.1**
02-5	Sugar and confectionery	119.2	118.3	119.2	118.6	119.2	119.0	119.4	120.5	119.8	118.7	119.1	120.2	120.1	**121.1**
02-6	Beverages and beverage materials	115.8	115.2	115.3	115.6	115.7	115.7	115.9	116.1	116.0	116.4	116.6	116.4	116.4	**116.8**
02-71	Animal fats and oils	130.9	122.6	142.1	135.9	131.5	123.9	135.7	144.0	136.5	132.1	130.1	122.3	121.4	**133.5**
02-72	Crude vegetable oils	128.8	127.6	128.8	120.4	120.6	127.2	136.7	147.5	135.6	128.9	128.6	118.2	114.2	**116.8**
02-73	Refined vegetable oils	134.8	147.7	152.5	125.2	128.3	131.6	135.5	140.7	133.6	127.9	130.4	122.7	121.0	**120.1**
02-74	Vegetable oil end products	121.1	119.4	119.4	119.4	118.5	118.5	122.8	124.6	123.3	122.8	122.8	122.0	121.7	**121.1**
02-8	Miscellaneous processed foods	113.2	111.9	113.7	114.3	113.9	113.9	113.8	113.8	113.0	112.7	113.0	113.1	113.6	**113.8**
02-9	Manufactured animal feeds	104.4	104.9	107.2	104.4	104.6	107.4	106.9	104.7	101.3	98.7	100.3	104.5	103.8	**103.7**
	INDUSTRIAL COMMODITIES														
03	**Textile products and apparel**	108.6	106.7	106.9	107.5	107.8	108.5	109.2	109.7	109.7	109.6	109.8	110.6	111.3	**112.0**
03-1	Cotton products	110.6	107.5	107.8	108.9	109.6	110.9	111.9	112.5	112.2	112.2	112.5	113.6	116.7	**118.0**
03-2	Wool products	93.5	95.4	94.5	94.4	93.5	93.4	92.6	92.7	92.5	92.4	92.3	91.5	92.0	**92.2**
03-3	Manmade fiber textile products	100.8	97.4	97.6	98.6	99.7	101.4	101.9	103.1	103.1	102.5	103.2	104.3	105.4	**105.9**
03-5	Apparel	112.9	112.0	112.2	112.2	112.2	112.3	113.3	113.6	113.8	113.8	113.8	113.8	113.8	**114.0**
03-6	Textile housefurnishings	104.2	103.4	103.5	103.5	104.3	104.5	104.8	104.8	104.1	104.1	104.1	106.1	106.2	**108.5**
03-7	Miscellaneous textile products	117.2	107.3	106.7	118.7	113.6	118.7	119.9	117.2	119.8	120.8	121.2	136.2	137.4	**141.6**
04	**Hides, skins, leather, and related products**	114.0	112.4	112.5	114.0	114.4	114.2	114.2	114.4	114.7	114.7	115.1	116.2	117.8	**119.1**
04-1	Hides and skins	115.1	105.3	105.5	121.1	121.4	114.0	114.0	114.6	117.7	117.2	123.1	128.6	136.0	**148.9**
04-2	Leather	112.5	108.7	108.6	111.0	113.0	114.4	114.4	114.4	113.4	113.4	113.5	117.0	120.0	**120.6**
04-3	Footwear	116.8	116.3	116.5	116.6	116.7	116.8	116.8	117.1	117.1	117.1	117.1	117.1	118.1	**118.5**
04-4	Other leather and related products	108.3	107.6	107.5	107.7	107.9	108.2	108.2	108.2	109.0	109.0	109.1	109.8	110.6	**111.2**
05	**Fuels and related products and power**	114.2	113.0	112.8	113.0	114.2	114.4	114.4	114.8	115.3	114.8	114.7	115.0	116.0	**116.1**
05-1	Coal	181.8	176.0	176.0	184.0	182.8	182.5	182.9	182.9	182.9	182.9	182.9	190.2	192.7	**192.6**
05-2	Coke	148.7	145.9	145.9	145.9	147.6	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	**155.0**
05-3	Gas fuels	108.0	108.1	109.4	105.9	106.9	107.5	107.7	107.2	108.4	108.8	108.8	107.9	110.0	**110.2**
05-4	Electric power	113.6	110.2	111.1	112.3	112.6	113.0	113.5	115.3	116.4	116.3	116.2	116.3	118.9	**120.0**
05-61	Crude petroleum	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	**113.2**
05-7	Petroleum products, refined	106.8	106.9	105.9	105.3	107.4	107.4	107.2	107.3	107.3	106.3	106.2	106.1	106.1	**105.5**
06	**Chemicals and allied products**	104.2	104.2	104.5	104.5	104.3	104.4	104.4	104.3	104.3	104.2	103.8	103.4	103.4	**103.5**
06-1	Industrial chemicals	102.0	101.9	102.2	101.9	101.5	102.2	102.4	102.4	102.4	102.4	101.7	101.1	101.4	**101.4**
06-21	Prepared paint	115.6	114.5	115.1	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	116.2	**117.3**
06-22	Paint materials	101.5	103.6	103.5	103.5	103.5	99.4	99.8	99.8	99.7	99.7	99.7	101.9	102.7	**102.7**
06-3	Drugs and pharmaceuticals	102.4	102.4	102.6	102.0	101.9	102.3	102.6	102.7	102.6	102.6	102.4	102.5	102.3	**102.2**
06-4	Fats and oils, inedible	133.5	142.6	144.3	143.0	138.8	132.0	130.8	134.2	132.9	129.0	125.3	115.9	111.3	**110.7**
06-5	Agricultural chemicals and chemical products	92.2	92.6	93.9	94.1	93.8	94.1	93.4	91.0	91.0	90.4	90.3	90.3	90.3	**90.2**
06-6	Plastic resins and materials	88.9	89.8	87.3	88.2	88.2	88.1	88.6	89.0	89.5	89.9	89.2	89.0	88.6	**89.3**
06-7	Other chemicals and allied products	112.1	111.2	111.5	111.8	112.1	112.5	112.5	112.4	112.4	112.5	112.5	112.4	112.4	**112.5**
07	**Rubber and plastic products**	109.2	109.1	109.1	109.0	108.7	108.7	109.7	109.8	109.7	109.5	109.5	109.4	109.5	**109.2**
07-1	Rubber and rubber products	112.2	111.1	111.2	110.8	110.9	111.1	113.2	113.7	113.7	113.3	113.3	113.3	113.4	**113.0**
07-11	Crude rubber	99.3	99.1	99.1	99.8	100.6	99.4	98.8	99.6	99.3	99.0	98.5	98.5	99.2	**98.8**
07-12	Tires and tubes	109.2	107.5	107.5	107.5	107.5	107.5	111.2	111.4	110.8	110.8	110.8	110.8	110.3	**108.4**
07-13	Miscellaneous rubber products	118.0	117.0	117.2	116.3	116.3	117.0	118.7	119.3	119.8	119.2	119.2	119.2	119.7	**120.4**
07-21	Plastic construction products [3]	94.7	95.8	95.9	95.5	94.6	93.6	94.0	94.1	94.7	94.6	94.1	93.8	93.7	**93.8**
07-22	Unsupported plastic film and sheeting [4]	101.1	102.9	102.7	102.6	102.2	101.9	100.6	100.1	100.0	100.0	100.1	100.0	100.0	**99.9**
07-23	Laminated plastic sheets, high pressure [4]	99.2	99.9	99.5	101.0	99.1	99.2	99.7	98.6	98.6	98.2	98.0	97.9	98.2	**98.6**
08	**Lumber and wood products**	127.0	117.5	123.4	124.6	124.9	126.1	130.6	134.6	134.3	131.8	131.3	132.7	134.9	**137.7**
08-1	Lumber	135.5	120.3	129.0	131.5	132.8	134.4	142.5	146.7	146.8	142.7	141.9	143.8	146.9	**150.4**
08-2	Millwork	120.7	115.2	116.2	118.6	120.3	122.2	122.8	123.8	123.7	123.7	123.7	124.3	124.9	**125.5**
08-3	Plywood	114.7	112.8	120.2	115.6	111.0	110.2	111.7	120.5	119.1	116.2	115.9	117.8	120.2	**125.1**
08-4	Other wood products	118.8	118.1	118.3	119.3	119.2	119.1	119.0	118.9	118.9	118.8	119.5	119.1	119.6	**119.9**

See footnotes at end of table.

27. Continued—Wholesale Price Index,[1] by group and subgroup of commodities

[1967 = 100 unless otherwise specified][2]

Code	Commodity group	Annual average 1971	1971											1972	
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	INDUSTRIAL COMMODITIES—Continued														
09	**Pulp, paper, and allied products**	110.1	109.3	109.3	109.6	109.9	110.2	110.5	110.6	110.6	110.6	110.6	110.7	110.8	111.6
09-1	Pulp, paper, and products, excluding building paper and board	110.4	109.6	109.6	109.9	110.2	110.5	110.8	110.8	110.8	110.9	110.9	111.0	111.1	111.9
09-11	Woodpulp	112.0	112.2	112.2	112.2	112.4	112.4	112.4	112.4	111.5	111.5	111.5	111.5	111.5	111.5
09-12	Wastepaper	111.9	105.0	104.8	107.7	107.6	112.3	111.8	112.8	114.5	117.2	117.2	124.6	124.9	126.6
09-13	Paper	114.1	112.7	113.1	114.3	114.2	114.3	114.6	114.7	114.7	114.7	114.7	114.7	114.9	115.3
09-14	Paperboard	102.4	101.3	102.5	103.0	102.6	102.8	102.8	102.8	102.8	102.9	102.9	102.7	102.7	103.5
09-15	Converted paper and paperboard products	109.7	109.4	109.0	108.8	109.4	109.8	110.1	110.1	110.2	110.1	110.1	110.1	110.3	111.4
09-2	Building paper and board	103.0	100.4	101.4	101.7	102.7	103.2	103.6	104.3	104.5	104.6	104.7	104.6	104.7	104.7
10	**Metals and metal products**	119.0	116.4	116.5	117.8	118.5	118.5	119.4	121.1	121.1	121.0	120.9	120.8	121.4	122.6
10-1	Iron and steel	121.8	118.0	118.2	118.4	120.1	120.3	121.9	125.3	125.6	125.5	125.3	125.3	126.8	128.2
10-13	Steel mill products	123.0	117.0	118.0	118.5	120.7	121.1	123.4	128.1	128.2	128.1	128.2	128.2	129.5	131.0
10-2	Nonferrous metals	116.0	114.2	113.7	117.2	117.2	116.4	116.9	117.1	116.5	116.3	116.0	114.9	114.4	115.0
10-3	Metal containers	121.7	115.8	115.8	123.1	123.1	123.0	123.0	124.2	124.2	124.2	124.2	124.2	124.2	127.1
10-4	Hardware	116.5	115.5	115.5	115.6	115.6	115.8	116.7	117.7	117.7	117.7	117.7	117.7	118.4	119.0
10-5	Plumbing fixtures and brass fittings	116.4	113.2	113.2	114.9	115.8	116.8	117.9	118.3	118.3	118.3	118.3	118.4	118.2	118.6
10-6	Heating equipment	115.5	114.1	114.5	114.7	115.1	115.2	115.9	116.8	116.7	116.3	116.5	116.3	115.9	116.2
10-7	Fabricated structural metal products	118.2	115.7	116.6	116.8	117.3	117.9	118.2	119.6	120.3	120.3	120.3	120.4	121.6	122.0
10-8	Miscellaneous metal products	119.0	117.7	117.9	118.0	118.2	118.7	119.3	119.8	119.9	119.7	119.7	120.9	121.3	123.2
11	**Machinery and equipment**	115.5	114.6	114.9	115.0	115.3	115.5	115.7	116.1	116.0	116.0	115.9	116.2	116.5	117.1
11-1	Agricultural machinery and equipment	117.2	116.8	116.5	116.7	116.6	116.9	117.4	117.5	117.5	117.5	117.5	118.6	119.9	121.5
11-2	Construction machinery and equipment	121.4	120.5	120.8	120.9	121.1	121.2	121.6	121.9	121.8	121.8	122.0	123.2	124.3	124.7
11-3	Metalworking machinery and equipment	117.3	116.0	116.0	116.6	117.4	117.9	117.7	118.1	118.0	118.1	118.2	118.4	118.5	118.9
11-4	General purpose machinery and equipment	119.1	117.3	117.8	118.3	118.7	119.3	119.8	120.3	120.2	120.2	120.2	120.5	120.8	121.2
11-6	Special industry machinery and equipment	120.9	119.4	119.6	119.7	120.4	120.9	121.6	121.6	121.7	122.0	122.0	122.1	122.6	123.1
11-7	Electrical machinery and equipment	109.5	109.3	109.7	109.5	109.4	109.4	109.5	109.9	109.7	109.6	109.3	109.3	109.5	110.0
11-9	Miscellaneous machinery	117.2	115.9	116.3	117.0	117.2	117.2	117.3	118.0	117.8	117.8	117.8	117.9	118.3	118.8
12	**Furniture and household durables**	109.9	109.7	109.6	109.7	109.9	109.8	110.0	110.2	110.2	110.2	110.2	110.2	110.2	110.8
12-1	Household furniture	114.8	113.9	114.0	114.1	115.0	115.2	115.3	115.5	115.6	115.6	115.4	115.5	116.0	116.7
12-2	Commercial furniture	118.1	118.2	118.2	118.1	118.1	118.1	118.1	118.2	118.2	118.2	118.2	118.2	118.3	118.3
12-3	Floor coverings	98.8	100.6	100.2	99.8	99.8	98.4	98.2	97.6	97.6	97.6	97.6	97.9	98.1	98.2
12-4	Household appliances	107.2	107.1	107.0	107.1	107.1	107.1	107.0	107.4	107.6	107.5	107.6	107.4	106.9	107.5
12-5	Home electronic equipment	93.8	94.2	93.7	93.7	93.7	93.6	93.9	94.0	93.8	93.8	93.4	93.4	93.3	92.9
12-6	Other household durable goods	120.9	119.8	119.8	120.1	120.1	120.1	121.6	122.1	122.1	121.9	122.0	122.1	122.3	124.1
13	**Nonmetallic mineral products**	122.4	119.0	120.9	121.6	121.8	122.2	123.3	124.2	124.2	124.1	124.0	124.2	124.3	124.6
13-11	Flat glass	123.9	123.1	125.3	126.2	124.4	122.5	122.5	124.3	124.3	124.3	123.1	123.6	123.6	123.6
13-2	Concrete ingredients	121.9	117.3	120.6	121.0	121.2	121.5	123.3	124.0	124.1	124.1	124.3	124.2	124.4	124.6
13-3	Concrete products	120.6	117.6	118.5	119.4	119.6	120.1	121.5	122.8	122.6	122.6	122.6	122.9	123.4	123.8
13-4	Structural clay products excluding refractories	114.2	112.7	113.6	114.5	114.5	114.5	114.5	114.9	114.9	114.9	114.9	114.9	114.8	116.1
13-5	Refractories	126.9	126.7	126.7	126.7	126.7	126.9	126.9	126.9	126.9	127.1	127.1	127.1	127.1	127.1
13-6	Asphalt roofing	125.5	108.8	123.6	123.6	123.6	130.7	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2
13-7	Gypsum products	106.8	97.9	98.9	101.0	101.2	104.0	112.7	114.3	114.5	113.6	112.1	114.1	113.4	112.8
13-8	Glass containers	131.6	131.9	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5
13-9	Other nonmetallic minerals	124.1	121.0	121.4	122.0	124.8	124.8	125.6	125.7	125.7	125.7	125.6	125.6	125.7	125.9
14	**Transportation equipment**[5]	110.3	109.7	109.5	109.7	109.8	110.0	110.3	110.5	109.6	110.7	110.8	112.9	113.4	113.6
14-1	Motor vehicles and equipment	114.7	114.1	113.8	114.1	114.2	114.4	114.7	114.9	113.8	115.2	115.3	117.5	117.9	118.1
14-4	Railroad equipment	121.1	119.0	119.9	119.9	120.4	120.8	121.5	122.5	122.5	122.5	122.5	122.6	123.7	123.9
15	**Miscellaneous products**	112.8	112.6	112.8	112.7	112.5	112.6	112.8	113.0	113.0	113.0	113.1	113.2	113.7	114.0
15-1	Toys, sporting goods, small arms, ammunition	112.6	112.3	113.1	112.5	112.4	112.6	112.6	112.6	112.6	112.6	112.8	113.1	113.5	114.0
15-2	Tobacco products	116.7	116.9	116.9	116.5	116.5	116.5	116.6	116.8	116.8	116.8	116.8	116.7	117.4	117.4
15-3	Notions	111.6	111.3	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7
15-4	Photographic equipment and supplies	106.1	105.6	105.8	105.8	105.9	106.0	106.2	106.3	106.3	106.3	106.5	106.5	106.4	106.7
15-9	Other miscellaneous products	112.3	111.7	111.8	112.2	111.6	111.9	112.4	112.9	112.9	112.9	112.9	113.0	113.9	114.4

[1] As of January 1967, the index 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 1971 the indexes were converted from the former base of 1957–59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

[3] December 1969 = 100.

[4] December 1970 = 100.

[5] December 1968 = 100.

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, 1966), Chapter 11.

28. Wholesale Price Index for special commodity groupings [1]

[1967 = 100 unless otherwise specified] [2]

Commodity group	Annual average 1971	1971											1972	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
All commodities—less farm products	114.0	112.6	113.0	113.3	113.8	114.0	114.7	115.1	114.9	114.8	114.8	115.4	116.1	116.9
All foods	115.5	114.2	115.0	114.7	116.0	117.0	115.8	116.6	115.1	115.3	116.3	118.1	118.9	120.8
Processed foods	115.6	114.4	114.5	114.5	115.8	116.0	117.3	116.9	116.4	116.1	116.2	117.5	119.2	121.2
Textile products, excluding hard and bast fiber products	103.7	101.3	101.4	102.2	102.9	104.1	104.6	105.2	105.0	104.7	105.1	106.1	107.6	**108.7**
Hosiery	95.6	95.8	95.6	95.6	95.5	95.5	95.5	95.5	95.5	95.5	95.5	96.0	96.0	**96.0**
Underwear and nightwear	108.1	107.7	107.6	107.9	107.9	108.1	108.3	108.6	108.4	108.4	108.4	108.4	108.7	**109.6**
Refined petroleum products	106.8	106.9	105.9	105.3	107.4	107.4	107.2	107.3	107.3	106.3	106.2	106.1	106.1	**105.5**
East Coast	120.0	117.9	116.2	122.2	122.2	121.8	121.8	120.8	120.8	120.4	119.2	119.2	119.2	**119.9**
Mid-Continent	103.3	107.5	99.4	97.3	106.0	103.1	103.1	103.1	103.1	101.6	101.6	101.6	101.6	**100.2**
Gulf Coast	100.0	100.4	100.4	98.4	100.7	100.7	100.7	100.7	100.7	98.4	98.4	98.4	98.4	**96.9**
Pacific Coast	112.7	110.6	112.9	113.8	113.8	113.8	112.4	113.0	113.3	113.8	113.8	112.7	113.3	**114.1**
Midwest	112.5	113.2	110.3	110.1	111.6	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	**113.1**
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns [3]	103.2	103.1	103.3	103.3	103.2	103.4	103.5	103.3	103.3	103.3	103.0	102.9	103.0	**103.2**
Pharmaceutical preparations	102.2	102.3	102.5	101.8	101.7	102.1	102.4	102.5	102.5	102.5	102.3	102.4	102.2	**102.1**
Lumber and wood products, excluding millwork and other wood products [4]	130.1	118.3	126.7	127.4	127.2	128.2	134.7	140.0	139.7	135.9	135.3	137.2	140.1	**143.9**
Special metals and metal products [5]	117.6	115.7	115.7	116.6	117.1	117.2	117.9	119.0	118.7	119.0	119.0	119.7	120.3	**121.1**
Copper and copper products [6]	116.6	113.7	113.1	119.4	119.4	117.7	118.4	117.8	117.0	116.7	116.0	114.0	115.0	**116.3**
Machinery and motive products	115.3	114.5	114.6	114.8	115.0	115.2	115.5	115.8	115.3	115.8	115.8	116.7	117.2	**117.6**
Machinery and equipment, except electrical	118.9	117.5	117.8	118.2	118.6	118.9	119.3	119.6	119.6	119.6	119.7	120.1	120.6	**121.1**
Agricultural machinery, including tractors	117.3	117.0	116.6	116.8	116.7	117.0	117.6	117.7	117.7	117.7	117.7	118.9	120.4	**122.1**
Metalworking machinery	118.6	117.6	117.6	117.6	118.4	119.1	119.2	119.4	119.2	119.3	119.5	119.8	119.9	**120.3**
Numerically controlled machine tools (Dec. 1971 =100)													100.0	**100.5**
Total tractors	120.7	120.3	120.4	120.4	120.4	120.8	120.8	120.8	120.8	120.8	120.8	122.5	124.1	**124.6**
Industrial valves	116.3	111.3	112.8	114.3	116.6	117.7	118.1	118.6	118.6	118.6	119.1	119.1	119.1	**120.2**
Industrial fittings	122.4	122.4	122.4	122.2	122.2	122.2	122.6	122.6	122.6	122.6	122.6	123.0	123.8	**123.1**
Abrasive grinding wheels	122.1	117.5	117.5	123.6	123.6	123.7	123.7	123.5	123.5	123.5	123.5	123.5	123.5	**123.8**
Construction materials	119.5	114.9	117.2	118.0	118.5	119.0	120.9	122.9	123.0	122.2	122.0	122.4	123.2	**124.2**

[1] As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957–59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

[3] Introduced in February 1971.

[4] Formerly titled "Lumber and wood products, excluding millwork."

[5] Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

[6] Formerly titled "Copper and copper base metals."

29. Wholesale Price Index,[1] by durability of product

[1967 = 100][2]

Commodity group	Annual average 1971	1971											1972	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. [3]	Jan.	Feb.
All commodities	113.9	112.8	113.0	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	**117.3**
Total durable goods	117.0	115.0	115.5	116.1	116.5	116.7	117.5	118.4	118.2	118.2	118.1	118.6	119.2	**120.0**
Total nondurable goods	111.7	111.1	111.1	111.2	111.8	112.5	112.4	112.4	111.7	111.6	111.8	113.0	114.1	**115.3**
Total manufactures	113.8	112.4	112.7	113.0	113.5	113.8	114.5	114.9	114.7	114.5	114.5	115.1	115.7	**116.5**
Durable	117.0	114.9	115.5	116.1	116.5	116.7	117.5	118.5	118.3	118.3	118.3	118.8	119.3	**120.1**
Nondurable	110.5	109.8	109.9	109.9	110.5	110.8	111.4	111.2	111.0	110.6	110.7	111.3	112.0	**112.8**
Total raw or slightly processed goods	114.4	114.5	114.0	114.4	114.9	116.3	114.7	114.8	113.2	113.8	114.3	116.8	118.9	**120.9**
Durable	112.2	116.6	114.5	115.9	113.7	111.5	111.4	110.4	111.1	110.4	108.9	107.4	110.3	**113.1**
Nondurable	114.6	114.4	114.0	114.4	115.1	116.6	115.0	115.1	113.4	114.0	114.6	117.3	119.3	**121.3**

[1] As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957–59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

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

30. Wholesale Price Index,[1] by stage of processing

[1967 = 100] [2]

Commodity group	Annual average 1971	1971											1972	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. [3]	Jan.	Feb.
All commodities	113.9	112.8	113.0	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	**117.3**
Crude materials for further processing	115.0	115.9	114.3	115.2	115.8	116.9	116.6	115.2	113.9	114.3	114.3	117.0	120.2	**123.1**
RAW MATERIALS														
Foodstuffs and feedstuffs	114.2	116.4	114.0	114.4	115.4	117.1	116.6	114.5	112.1	112.6	112.7	115.8	119.3	**122.9**
Nonfood materials except fuel	110.5	109.8	109.4	110.6	110.3	110.1	110.4	110.2	111.1	111.1	111.1	112.8	115.4	**117.3**
Manufacturing	109.7	109.2	108.6	109.9	109.6	109.3	109.5	109.3	110.3	110.3	110.2	112.2	115.1	**117.1**
Construction	119.1	117.1	117.6	118.2	118.7	119.3	119.6	120.1	120.3	120.3	120.5	120.4	120.7	**120.9**
Crude fuel	138.5	133.4	134.5	138.5	139.0	139.4	139.7	139.3	140.3	140.6	140.6	142.7	145.4	**145.6**
Manufacturing industries	129.6	124.7	126.0	129.1	129.8	130.4	130.7	130.2	131.4	131.8	131.8	132.8	135.5	**135.7**
Nonmanufacturing industries	150.4	144.9	145.7	151.0	151.0	151.3	151.5	151.2	152.0	152.2	152.2	155.7	158.4	**158.6**
INTERMEDIATE MATERIALS														
Intermediate materials: Supplies and components	114.0	111.8	112.6	113.1	113.6	114.0	114.8	115.6	115.4	115.0	115.0	115.4	115.9	**116.7**
Materials and components for manufacturing	113.0	110.9	111.4	112.1	112.6	112.8	113.6	114.6	114.4	114.2	114.2	114.4	114.9	**115.7**
Materials for food manufacturing	116.2	114.9	115.5	115.2	116.2	116.3	117.5	118.3	117.1	116.6	116.8	117.3	117.9	**119.4**
Materials for nondurable manufacturing	105.6	104.4	104.8	105.4	105.5	105.9	106.1	106.3	106.2	105.9	105.9	106.3	107.0	**107.4**
Materials for durable manufacturing	118.8	114.8	115.9	117.2	118.0	118.1	119.6	121.7	121.6	121.4	121.2	121.0	121.5	**122.7**
Components for manufacturing	114.7	113.6	113.6	113.8	114.1	114.5	114.9	115.5	115.6	115.4	115.6	115.8	116.0	**116.5**
Materials and components for construction	119.5	115.4	117.3	118.0	118.5	119.2	120.8	122.5	122.5	121.9	121.8	122.3	123.1	**124.2**
Processed fuels and lubricants	113.4	111.6	112.3	112.0	113.0	113.2	113.4	114.6	115.3	114.6	114.4	114.3	116.0	**116.8**
Manufacturing industries	115.2	112.9	113.8	113.9	114.3	114.7	115.1	116.6	117.5	117.2	117.0	117.0	119.2	**120.4**
Nonmanufacturing industries	110.6	109.8	110.0	109.1	111.1	110.9	110.9	111.5	111.9	110.6	110.4	110.1	111.0	**111.1**
Containers	116.6	114.8	114.4	116.2	116.6	116.9	117.2	117.5	117.6	117.6	117.6	117.6	117.8	**119.5**
Supplies	110.9	110.6	111.3	110.7	110.9	111.9	111.9	111.3	110.3	109.6	110.1	111.1	111.0	**111.4**
Manufacturing industries	113.1	112.8	112.7	113.0	113.4	113.5	113.2	113.2	113.2	113.2	113.2	113.2	113.2	**113.9**
Nonmanufacturing industries	109.0	109.5	110.7	109.7	109.7	111.2	111.3	110.4	109.0	107.9	108.6	110.2	110.1	**110.3**
Manufactured animal feeds	104.3	104.9	107.3	104.3	104.6	107.8	107.2	104.6	100.8	97.9	99.8	104.4	103.6	**103.3**
Other supplies	112.6	111.7	112.2	112.2	112.1	112.7	113.2	113.2	113.0	113.0	113.0	113.0	113.2	**113.8**
FINISHED GOODS														
Finished goods (including raw foods and fuels)	113.5	112.8	112.9	112.9	113.5	113.8	113.8	114.1	113.6	113.8	114.0	115.0	115.5	**116.3**
Consumer goods	112.7	112.0	112.1	112.0	112.7	113.1	113.0	113.3	112.7	112.9	113.1	114.2	114.7	115.6
Foods	115.2	113.9	114.6	114.5	115.6	116.4	115.6	116.1	114.9	115.0	115.7	117.7	118.7	**120.6**
Crude	115.8	114.7	118.0	116.9	117.1	121.8	109.0	115.8	109.6	112.2	116.1	121.5	117.4	**117.9**
Processed	115.0	113.8	113.9	114.0	115.3	115.4	116.7	116.1	115.8	115.5	115.6	117.0	118.8	**121.0**
Other nondurable goods	111.3	110.8	110.7	110.5	111.0	111.2	111.6	111.8	111.9	111.7	111.7	111.8	112.0	**112.1**
Durable goods	110.9	110.8	110.4	110.5	110.7	110.7	111.0	111.1	110.4	111.3	111.3	112.6	112.9	**113.2**
Producer finished goods	116.6	115.9	116.0	116.1	116.3	116.5	116.8	117.1	116.9	117.1	117.0	117.8	118.4	**118.8**
Manufacturing industries	117.3	116.4	116.6	116.7	117.0	117.2	117.7	117.9	117.8	117.9	117.8	118.2	118.3	**119.1**
Nonmanufacturing industries	116.0	115.4	115.5	115.6	115.6	115.8	116.1	116.4	116.0	116.3	116.3	117.4	118.1	**118.4**
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers oilseeds, and leaf tobacco	122.7	121.8	121.4	124.1	123.5	122.8	122.7	122.3	123.0	122.9	122.6	123.4	125.6	**127.0**
Intermediate materials, supplies and components excluding intermediate materials for food manufacturing and manufactured animal feeds	114.3	112.0	112.7	113.3	113.8	114.1	114.9	115.9	115.9	115.7	115.6	115.8	116.4	**117.2**
Consumer finished goods, excluding consumer foods	111.2	110.8	110.6	110.5	110.9	111.0	111.4	111.5	111.3	111.6	111.6	112.1	112.3	**112.5**

[1] As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957–59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

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

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

[1967 = 100 unless otherwise indicated][2]

1963 SIC code	Industry	Annual average 1971	1970	1971											
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.[3]
	MINING														
1111	Anthracite	144.9	144.6	146.3	146.3	146.3	146.3	144.2	140.5	144.7	144.7	145.6	144.7	144.7	144.7
1211	Bituminous coal	185.0	178.5	178.6	178.6	178.6	187.1	186.1	186.1	186.1	186.1	186.1	186.2	[c]186.2	194.1
1311	Crude petroleum and natural gas	113.0	112.0	112.5	112.1	112.5	112.7	113.0	113.2	113.3	113.1	113.5	113.6	113.6	113.3
1421	Crushed and broken stone	117.7	113.1	116.0	116.0	116.3	117.1	117.1	118.3	118.5	118.5	118.5	118.5	118.8	118.8
1442	Construction sand and gravel	120.6	116.5	118.2	118.2	118.9	119.5	120.5	120.5	120.8	121.9	122.3	122.3	122.3	122.2
1475	Phosphate rock	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
1476	Rock salt	118.3	112.2	112.2	112.2	112.2	112.2	112.2	112.2	124.4	124.4	124.4	124.4	124.4	124.4
1477	Sulfur	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8
	MANUFACTURING														
2011	Meat slaughtering plants	115.6	102.8	106.4	114.7	112.5	113.2	116.9	115.2	117.7	117.5	117.5	117.1	117.1	120.8
2013	Meat processing plants	110.7	106.1	105.3	109.7	109.7	109.7	111.0	111.0	111.6	111.4	110.2	112.0	112.4	114.9
2015	Poultry dressing plants	111.0	97.2	109.0	111.1	110.5	109.5	110.7	117.1	127.1	112.0	113.0	106.0	104.9	100.8
2021	Creamery butter	113.1	112.9	111.4	111.4	111.9	113.6	113.5	113.3	113.3	113.4	113.5	113.6	113.6	114.2
2033	Canned fruits and vegetables	111.7	108.7	108.9	109.1	109.5	110.8	111.4	113.0	113.3	113.7	113.0	112.5	112.6	113.0
2036	Fresh or frozen packaged fish	141.2	134.7	132.6	132.5	131.3	132.5	134.9	142.5	141.0	148.4	145.3	145.3	150.0	158.1
2044	Rice milling	98.9	99.4	98.2	98.2	98.2	98.2	97.7	99.3	99.3	99.3	99.3	99.3	99.3	100.5
2052	Biscuits, crackers and cookies	119.3	115.8	115.9	116.7	120.3	120.3	120.3	120.3	119.6	119.6	119.6	119.6	119.6	119.6
2061	Raw cane sugar	116.9	111.5	114.8	116.0	115.4	113.4	116.0	117.7	117.7	119.5	116.7	116.7	118.1	121.3
2062	Cane sugar refining	118.3	115.1	115.5	116.0	117.6	117.3	117.6	117.8	119.5	119.8	119.4	119.4	119.6	120.0
2063	Beet sugar	116.8	114.7	115.0	115.8	117.6	116.5	116.8	116.7	117.1	117.3	117.0	117.0	117.0	117.3
2073	Chewing gum	123.6	113.8	113.8	113.9	120.2	126.1	126.1	126.1	126.2	126.2	126.2	126.2	126.2	126.2
2082	Malt liquors	110.2	108.8	109.4	109.6	109.9	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.9	110.6
2083	Malt	98.5	94.4	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	94.2
2084	Wines and brandy	117.0	110.9	110.9	111.0	114.8	114.8	115.4	115.4	120.4	120.4	120.4	120.5	120.5	119.4
2091	Cottonseed oil mills	111.4	109.2	111.5	115.4	110.0	111.0	108.8	110.4	113.1	120.0	118.1	105.2	104.9	108.5
2092	Soybean oil mills	111.4	118.5	112.1	108.8	109.5	103.1	107.5	112.9	120.8	120.8	109.2	110.3	110.9	111.3
2094	Animal and marine fats and oils	125.7	139.1	126.8	130.8	134.7	133.9	128.7	124.3	122.8	124.4	125.4	122.6	120.3	114.0
2096	Shortening and cooking oils	121.0	118.0	119.4	119.5	119.7	119.5	118.5	118.4	122.9	125.0	123.3	122.4	122.2	121.1
2098	Macaroni and noodle products	106.3	106.5	106.5	106.5	106.5	106.5	106.5	106.4	106.5	106.4	106.5	105.8	105.8	105.8
2111	Cigarettes	117.4	118.3	117.8	117.9	117.9	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2121	Cigars	108.1	106.6	106.7	106.9	106.9	107.0	107.0	107.0	107.6	109.6	109.6	109.6	109.6	109.1
2131	Chewing and smoking tobacco	125.0	119.4	123.3	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1
2254	Knit underwear mills	107.8	106.9	107.4	107.5	107.1	107.5	107.5	107.7	107.8	108.3	108.3	108.2	108.3	108.2
2272	Tufted carpets and rugs	96.0	98.3	98.5	98.4	98.2	97.6	97.7	95.5	95.2	94.2	94.2	94.2	94.2	94.5
2311	Men's and boys' suits and coats	128.0	124.4	124.9	125.5	125.6	126.1	126.0	126.5	127.7	129.1	131.0	131.2	131.3	131.3
2321	Men's dress shirts and nightwear	111.9	111.6	111.6	111.6	111.6	111.7	111.9	112.0	112.2	112.3	112.4	112.4	111.4	111.1
2322	Men's and boys' underwear	110.3	109.9	110.3	110.3	110.0	110.1	110.2	110.2	110.2	110.6	110.6	110.6	110.5	110.5
2327	Men's and boys' separate trousers	110.6	110.1	110.1	110.1	110.2	110.2	110.2	110.2	110.7	110.9	111.0	111.0	111.0	111.0
2328	Work clothing	113.7	112.7	112.6	112.6	112.7	113.0	113.0	113.4	113.4	114.7	114.6	114.6	114.6	114.9
2381	Fabric dress and work gloves	111.8	112.1	112.1	112.1	111.7	111.7	111.7	111.7	111.7	111.7	111.8	111.8	111.5	111.5
2426	Hardwood dimension and flooring	115.5	109.3	110.2	111.9	113.3	113.7	113.9	114.2	116.2	118.8	118.5	118.2	118.2	119.4
2442	Wirebound boxes and crates[4]	117.6	116.5	116.5	117.0	117.2	117.3	117.3	117.5	117.9	117.9	117.9	117.9	118.3	118.5
2515	Mattresses and bedsprings	108.8	107.9	108.3	108.3	108.8	108.8	108.9	109.1	108.9	109.0	109.0	109.0	109.0	109.0
2521	Wood office furniture	117.1	115.8	115.8	117.2	117.2	117.1	117.1	117.1	117.1	117.3	117.3	117.3	117.5	117.5
2647	Sanitary paper products	119.1	117.3	117.5	118.0	119.2	119.2	119.2	119.5	119.5	119.5	119.5	119.5	119.5	119.5
2654	Sanitary food containers	106.0	104.2	105.4	105.4	106.0	106.0	106.0	106.1	106.2	106.2	106.2	106.2	106.2	106.2
2822	Synthetic rubber	99.9	100.0	99.9	99.9	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	[c]99.7	99.7
2823	Cellulosic man-made fibers	102.5	100.6	101.0	102.3	102.3	102.5	102.5	102.5	102.5	102.8	102.8	102.9	102.7	103.7
2824	Organic fibers, noncellulosic	98.0	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
2871	Fertilizers	91.8	89.4	91.3	91.7	94.0	94.0	94.1	94.1	93.7	89.7	89.7	89.8	89.8	89.7
2872	Fertilizers, mixing only	102.5	97.4	100.7	101.4	103.2	103.3	103.5	103.5	102.8	102.3	102.4	102.5	102.4	102.3
2892	Explosives	112.8	107.0	112.7	112.9	112.9	112.9	112.9	112.9	112.9	112.8	112.8	112.8	112.8	112.7
2911	Petroleum refining	105.7	106.2	106.8	105.8	104.9	104.4	106.4	106.3	106.2	106.2	106.3	105.3	105.2	105.0
3111	Leather tanning and finishing	113.0	107.8	108.7	109.2	109.1	111.5	113.5	114.7	114.7	114.7	113.9	114.0	114.0	117.5
3121	Industrial leather belting	125.5	121.6	123.1	125.9	125.4	124.8	126.0	125.3	125.5	126.0	125.6	125.6	126.3	126.3
3221	Glass containers	131.5	124.3	131.8	131.8	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4
3241	Cement, hydraulic	124.6	110.5	117.9	117.3	123.6	123.6	123.6	123.6	126.7	127.6	127.8	127.8	127.8	127.8
3251	Brick and structural clay tile	119.1	116.0	115.9	117.9	118.8	119.1	119.1	119.1	119.1	120.0	120.0	120.0	120.0	120.0
3255	Clay refractories	128.7	128.0	128.5	128.5	128.5	128.5	128.5	128.7	128.7	128.7	128.7	128.9	128.9	128.9
3259	Structural clay products nec	109.2	106.7	107.0	107.2	107.1	110.0	110.0	109.9	109.9	109.9	110.0	110.0	109.9	109.9
3261	Vitreous plumbing fixtures	112.1	107.6	108.3	108.3	108.3	109.3	110.7	113.2	114.0	114.3	114.6	114.8	114.4	114.7
3262	Vitreous china food utensils	132.4	127.0	127.0	130.6	130.6	133.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4
3263	Fine earthenware food utensils	125.5	114.9	119.9	120.2	120.2	120.3	120.3	120.3	129.7	131.1	131.1	131.1	131.1	131.1
3271	Concrete block and brick	118.4	114.5	116.8	117.4	118.4	118.2	118.3	118.3	118.4	118.9	119.1	119.1	119.1	119.1
3273	Ready mixed concrete	122.5	116.0	119.1	119.7	120.4	120.8	121.0	121.8	123.3	124.8	124.6	124.6	124.6	124.9
3275	Gypsum products	107.0	95.4	97.3	98.3	99.3	101.3	101.6	104.2	112.7	114.4	114.5	113.7	112.3	114.1
3312	Blast furnace and steel mills	123.4	117.3	117.4	117.6	118.5	118.9	121.0	121.6	124.0	128.2	128.3	128.3	128.3	128.3
3315	Steel wire drawing, etc	120.2	114.3	114.5	114.9	115.1	115.5	117.9	119.1	119.2	124.3	125.3	125.2	125.7	125.7

See footnotes at end of table.

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

[1967 = 100 unless otherwise indicated][2]

1963 SIC code	Industry	Annual average 1971	1970	1971											
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.[3]
	MANUFACTURING—Continued														
3316	Cold finishing of steel shapes	124.1	118.7	118.7	118.7	118.9	118.9	121.2	122.4	126.2	128.5	128.9	128.9	128.9	**128.9**
3317	Steel pipe and tube	121.9	113.3	113.5	115.2	115.2	116.8	119.9	120.3	120.7	128.4	128.4	128.2	128.2	**128.2**
3321	Gray iron foundries [5]	115.1	111.8	112.5	112.8	113.4	114.4	115.2	115.8	116.0	116.1	116.2	116.3	116.4	**116.4**
3333	Primary zinc	113.3	108.6	107.4	107.4	107.0	109.1	110.3	112.0	112.8	118.8	118.8	118.8	118.8	**118.8**
3334	Primary aluminum	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	**115.9**
3339	Primary nonferrous metals, nec	112.8	120.0	121.4	119.1	116.8	119.1	115.9	114.1	111.2	111.8	106.5	104.9	105.1	**107.2**
3351	Copper rolling and drawing	119.0	118.9	116.9	114.6	114.2	120.2	123.1	120.4	120.5	120.5	120.0	120.0	119.7	**118.3**
3352	Aluminum rolling and drawing [5]	108.2	108.6	108.5	108.2	107.9	108.0	108.0	108.2	108.3	108.4	108.4	108.3	108.3	**108.3**
3411	Metal cans	121.9	115.5	115.5	115.5	115.6	124.1	124.1	123.9	124.0	124.0	124.0	124.0	124.0	**124.0**
3423	Hand and edge tools [4]	120.8	117.6	118.3	118.7	118.8	118.9	118.9	119.6	121.3	123.1	123.1	123.0	123.2	**123.2**
3431	Metal plumbing fixtures	114.0	109.6	109.2	109.2	109.2	110.1	111.5	114.2	116.2	117.7	117.7	117.6	117.8	**117.8**
3493	Steel springs	111.9	110.3	110.3	110.3	110.3	110.8	110.7	111.7	110.2	111.5	113.3	113.1	114.3	**115.9**
3496	Collapsible tubes	118.4	115.1	114.8	114.8	117.1	117.1	117.0	119.8	119.9	120.0	120.0	119.9	119.9	**119.9**
3498	Fabricated pipe and fittings	133.0	127.4	128.1	128.1	128.1	128.2	129.7	135.6	135.6	135.6	136.7	136.7	136.7	**136.7**
3519	Internal combustion engines	117.4	115.7	116.3	116.4	116.5	116.7	116.7	116.6	116.8	118.4	118.5	118.5	118.5	**119.3**
3533	Oil field machinery	123.3	121.7	121.7	121.8	122.2	123.4	123.5	123.8	123.8	124.0	123.9	123.9	123.9	**123.9**
3534	Elevators and moving stairways	121.0	117.9	119.4	119.4	119.4	120.5	120.6	120.6	120.6	122.2	122.2	122.2	122.2	**122.2**
3537	Industrial trucks and tractors	120.4	118.0	118.3	118.4	118.5	118.5	118.5	118.6	121.6	123.5	121.7	121.7	121.7	**124.2**
3552	Textile machinery [6]	108.9	105.4	106.7	107.2	107.2	107.5	108.0	109.4	109.7	109.8	110.1	110.4	110.4	**110.4**
3562	Ball and roller bearings	114.2	113.9	113.9	113.9	113.9	113.9	113.9	113.9	114.0	114.6	114.6	114.6	114.6	**114.6**
3572	Typewriters	103.4	102.8	103.5	103.3	103.3	103.4	103.4	103.4	103.4	103.5	103.5	103.5	103.5	**103.5**
3576	Scales and balances	114.3	113.5	114.3	114.3	114.3	114.6	113.9	113.9	114.1	114.1	114.1	114.5	114.5	**114.5**
3612	Transformers	97.3	101.3	101.4	100.5	101.0	100.7	99.1	96.9	96.7	95.6	95.5	94.8	92.4	**93.0**
3613	Switchgear and switchboards	113.3	113.0	113.2	113.8	114.1	114.0	114.1	113.5	113.1	113.1	112.7	113.0	112.5	**112.3**
3624	Carbon and graphite products [4]	113.1	112.0	112.2	112.5	113.1	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	**113.3**
3635	Household vacuum cleaners	100.4	100.1	100.2	100.3	100.2	100.2	100.2	100.2	100.5	100.5	100.5	100.5	100.5	**100.4**
3641	Electric lamps	113.6	109.3	111.7	113.7	113.7	113.7	113.3	113.5	113.3	113.8	113.8	114.3	114.0	**114.2**
3652	Phonograph records	106.8	107.7	107.7	110.2	110.2	110.2	105.4	105.4	105.4	105.4	105.4	105.4	105.4	**105.4**
3671	Electron tubes, receiving type	132.0	132.2	131.5	131.6	131.6	132.2	132.1	132.2	132.2	132.2	132.2	132.2	132.2	**132.2**
3672	Cathode ray picture tubes	86.4	88.5	88.5	88.9	89.0	87.7	87.7	87.7	87.7	87.7	83.3	83.0	83.0	**83.0**
3673	Electron tubes, transmitting	111.4	108.1	108.5	111.6	111.8	111.9	111.9	111.7	111.7	111.7	111.6	111.6	111.6	**111.4**
3674	Semiconductors	93.9	94.9	95.1	95.0	94.9	93.7	93.5	93.5	93.3	93.7	93.5	93.5	93.5	**93.0**
3692	Primary batteries, dry and wet	118.9	106.0	106.0	111.3	116.5	116.6	119.2	120.5	121.8	123.0	123.0	123.0	123.0	**123.0**
3693	X-ray apparatus and tubes [4]	128.5	122.8	123.8	124.5	127.3	129.6	129.7	129.6	129.5	129.5	129.5	129.5	129.5	**129.5**
3941	Games and toys	112.9	110.6	111.1	112.4	113.5	113.3	113.0	113.0	113.0	113.0	113.0	113.0	113.0	**113.1**

[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 the **Monthly Labor Review.** August 1965, pp. 974–982.

[2] As of January 1971, the indexes were converted from the former base 1957–59 = 100 to the new base of 1967 = 100.

[3] 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.

[4] December 1967 = 100.

[5] December 1968 = 100.

[6] December 1969 = 100.

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.

32. 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
1970	5,716		3,305		66,414	.37
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	279	458	71.1	269.9	3,710.8	.25
February	330	529	116.3	329.6	2,110.6	.15
March	427	630	316.2	402.5	2,471.2	.16
April	640	884	451.1	523.1	5,431.1	.34
May	699	1,050	331.1	675.4	6,650.7	.46
June	657	1,060	288.1	538.0	5,845.6	.36
July	585	989	242.2	467.1	5,112.1	.32
August	527	950	127.3	340.7	3,851.8	.26
September	560	971	591.1	785.0	8,669.5	.57
October	448	881	231.1	753.9	11,573.6	.73
November	340	695	83.6	552.0	7,798.0	.54
December	224	529	455.5	919.9	3,188.7	.20
1971: January p	280	440	222	286	2,709	.19
February p	330	490	114	169	1,771	.13
March p	410	590	116	200	2,292	.14
April p	540	750	174	254	2,184	.14
May p	580	790	702	774	3,437	.24
June p	610	850	272	384	3,923	.25
July p	410	670	820	967	7,906	.52
August p	390	660	166	472	4,505	.28
September p	280	540	88	286	2,841	.19
October p	300	540	210	300	4,507	.29
November p	260	490	249	455	4,229	.28
December p	150	360	27	243	4,444	.29
January p	**300**	**460**	**79**	**154**	**2,284**	**.15**

[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.

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

[Indexes 1967=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	
	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm
1968: 1st	102.6	102.8	100.8	100.9	101.8	101.9	104.4	104.6	102.0	102.2	102.5	102.6	101.5	101.3	102.1	102.1
2d	104.6	104.9	101.8	102.0	102.7	102.9	106.3	106.1	102.7	102.5	103.5	103.1	102.5	102.7	103.1	103.0
3d	105.6	105.9	102.2	102.7	103.3	103.2	108.6	108.0	103.6	103.1	105.1	104.7	102.2	102.6	104.0	103.9
4th	106.3	106.6	102.5	103.0	103.7	103.5	110.9	110.3	104.6	104.1	106.9	106.6	102.2	102.4	105.1	105.0
Annual average	104.8	105.1	101.8	102.1	102.9	102.9	107.6	107.3	103.2	102.9	104.6	104.3	102.0	102.3	103.6	103.5
1969: 1st	107.1	107.2	103.4	104.0	103.6	103.1	112.6	111.9	104.9	104.3	108.7	108.6	102.5	102.4	106.3	106.3
2d	107.5	107.9	104.2	104.9	103.1	102.8	114.4	113.7	104.8	104.2	110.9	110.6	102.6	102.2	107.7	107.4
3d	108.0	108.3	104.5	105.4	103.4	102.7	116.6	115.5	105.4	104.4	112.8	112.5	102.9	102.8	109.0	108.8
4th	107.6	107.8	104.0	105.2	103.4	102.4	118.9	117.5	105.9	104.7	115.0	114.7	102.6	102.2	110.2	110.0
Annual average	107.5	107.8	104.0	104.9	103.4	102.7	115.6	114.7	105.3	104.5	111.9	111.6	102.6	102.3	108.3	108.1
1970: 1st	106.7	107.1	103.7	104.9	103.0	102.1	121.1	119.7	106.3	105.0	117.7	117.2	102.1	101.3	111.6	111.2
2d	106.9	107.2	103.1	104.0	103.7	103.1	122.5	121.5	105.9	105.0	118.1	117.8	104.4	104.0	112.8	112.6
3d	107.3	107.7	102.0	103.1	105.3	104.6	125.3	124.1	107.1	106.0	119.0	118.7	106.4	106.6	114.1	114.1
4th	106.1	106.2	100.8	102.0	105.3	104.1	127.2	125.7	107.2	106.0	120.7	120.7	108.1	108.8	115.9	116.2
Annual average	106.8	107.1	102.4	103.5	104.3	103.5	124.0	122.7	106.6	105.5	118.9	118.6	105.3	105.2	113.6	113.5
1971: 1st	108.3	108.5	101.3	102.5	106.9	105.8	129.8	128.4	108.6	107.4	121.4	121.3	110.4	110.9	117.1	117.4
2d	109.3	109.5	101.7	102.8	107.4	106.5	131.7	130.4	109.0	108.0	122.6	122.4	111.7	112.2	118.4	118.6
3d	110.0	110.0	101.4	102.6	108.5	107.1	133.7	r 132.2	109.6	108.3	123.3	r 123.4	112.6	r 112.8	119.1	119.4
4th	p 111.7	p 111.9	p 102.1	p 103.2	p 109.4	p 108.4	p 135.2	p 133.8	p 110.2	p 109.1	p 123.6	p 123.5	p 113.0	p 112.6	p 119.5	p 119.4
Annual average	**p 109.8**	**110.0**	**p 101.7**	**p 102.8**	**p 108.1**	**p 107.0**	**p 132.6**	**p 131.2**	**p 109.3**	**p 108.1**	**p 122.7**	**p 122.7**	**p 111.9**	**p 112.1**	**p 118.5**	**p 118.7**
	Percent change over previous quarter at annual rate [4]															
1968: 1st	5.6	6.1	0.9	1.4	4.6	4.7	9.3	9.9	4.9	5.5	4.5	4.9	1.5	0.5	3.3	3.3
2d	7.7	8.6	3.9	4.3	3.7	4.1	7.6	6.2	2.7	1.3	3.8	2.0	3.7	5.7	3.7	3.4
3d	4.2	3.8	1.9	2.7	2.2	1.0	8.9	7.4	3.6	2.2	6.6	6.3	−1.1	−0.4	3.6	3.7
4th	2.7	2.4	1.1	1.2	1.5	1.3	8.8	8.8	3.9	4.0	7.1	7.5	0.2	−0.9	4.4	4.3
1969: 1st	3.0	2.5	3.4	4.2	−0.4	−1.7	6.4	5.8	1.4	0.8	6.8	7.7	1.0	0.0	4.6	4.7
2d	1.4	2.4	3.3	3.6	−1.8	−1.1	6.5	6.4	−0.4	−0.5	8.4	7.6	0.4	−0.9	5.4	4.4
3d	1.8	1.6	0.9	1.9	0.9	−0.3	7.9	6.7	2.0	0.9	7.0	7.1	1.3	2.4	4.8	5.3
4th	−1.5	−1.7	−1.6	−0.7	0.1	−1.0	8.0	7.1	2.2	1.3	7.8	8.2	−1.1	−2.3	4.5	4.4
1970: 1st	−3.0	−2.7	−1.4	−1.2	−1.6	−1.5	7.9	7.5	1.5	1.1	9.7	9.1	−1.9	−3.4	5.4	4.5
2d	0.8	0.6	−2.2	−3.6	3.1	4.3	4.7	6.3	−1.7	−0.2	1.6	1.9	9.0	11.2	4.2	5.1
3d	1.5	2.0	−4.3	−3.5	6.1	5.6	9.4	8.7	4.6	4.0	3.1	2.9	8.2	10.4	4.9	5.5
4th	−4.4	−5.6	−4.5	−4.0	0.2	−1.6	6.1	5.5	0.7	0.1	6.0	7.2	6.6	8.2	6.2	7.6
1971: 1st	8.5	8.8	2.1	2.1	6.2	6.6	8.5	8.6	5.1	5.2	2.1	1.9	8.7	8.1	4.4	4.1
2d	3.6	3.7	1.7	1.0	1.9	2.7	6.2	6.6	1.7	2.1	4.1	3.8	4.6	4.6	4.3	4.1
3d	2.7	1.8	−1.2	−0.5	4.0	2.3	r 6.2	r 5.4	r 2.1	1.3	r 2.2	3.0	3.3	r 2.4	2.5	2.8
4th	p 6.3	p 7.2	p 2.8	p 2.4	p 3.4	p 4.8	p 4.4	p 5.2	p 2.1	p 2.7	p 1.0	p 0.5	p 1.4	p −0.9	p 1.2	p −0.1
	Percent change over previous year [5]															
1970: 1st	−0.3	−0.1	0.3	0.9	−0.6	−1.0	7.6	6.9	1.3	0.7	8.2	8.0	−0.3	−1.1	5.0	4.7
2d	−0.5	−0.6	−1.1	−0.9	0.6	0.4	7.1	6.9	1.0	0.8	6.5	6.5	1.7	1.8	4.7	4.8
3d	−0.6	−0.5	−2.4	−2.3	1.9	1.8	7.5	7.4	1.6	1.5	5.5	5.5	3.4	3.7	4.7	4.9
4th	−1.3	−1.5	−3.1	−3.1	1.9	1.7	7.0	7.0	1.2	1.2	5.0	5.2	5.4	6.4	5.2	5.7
1971: 1st	1.5	1.3	−2.3	−2.3	3.8	3.7	7.1	7.3	2.1	2.2	3.2	3.5	8.1	9.5	4.9	5.5
2d	2.2	2.1	−1.3	−1.2	3.6	3.3	7.5	7.3	3.0	2.8	3.8	3.9	7.0	7.8	5.0	5.3
3d	2.5	2.0	−0.5	−0.4	r 3.0	2.5	6.7	6.5	2.4	2.2	3.6	r 4.0	5.8	r 5.8	4.4	4.6
4th	p 5.2	p 5.3	p 1.3	p 1.2	p 3.9	p 4.1	p 6.3	p 6.5	p 2.7	p 2.9	p 2.3	p 2.3	p 4.5	p 3.5	p 3.1	p 2.7

[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] Percent change computed from original data.

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

NOTE: Data for 1968, 1969, 1970, and the first two quarters of 1971 have been adjusted to new benchmarks and are not comparable to those previously published in the **Monthly Labor Review.**

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.

r = revised.

p = preliminary.

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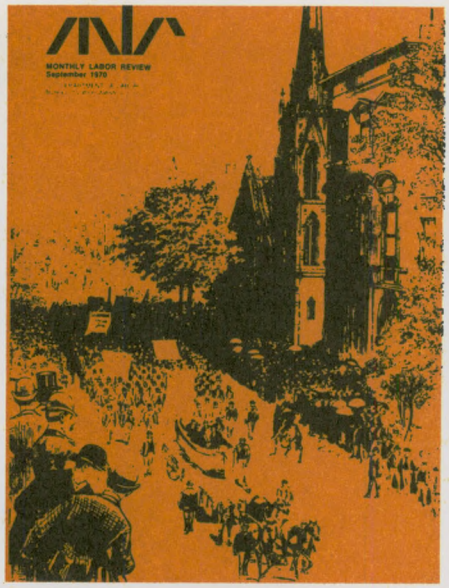

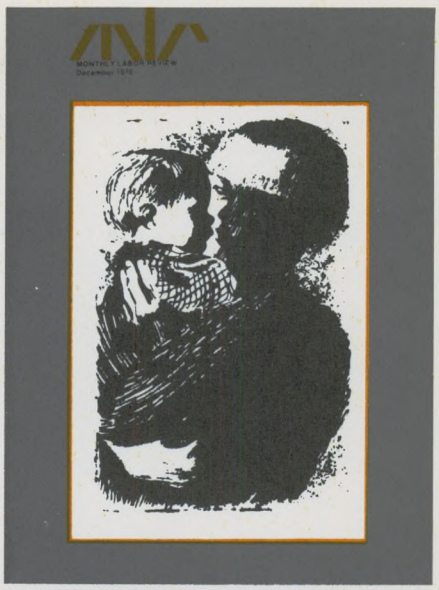

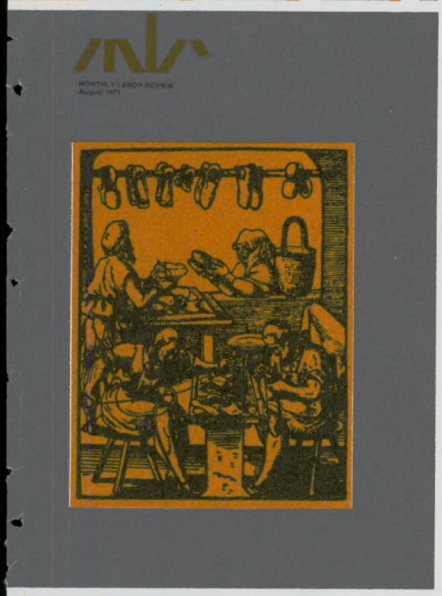

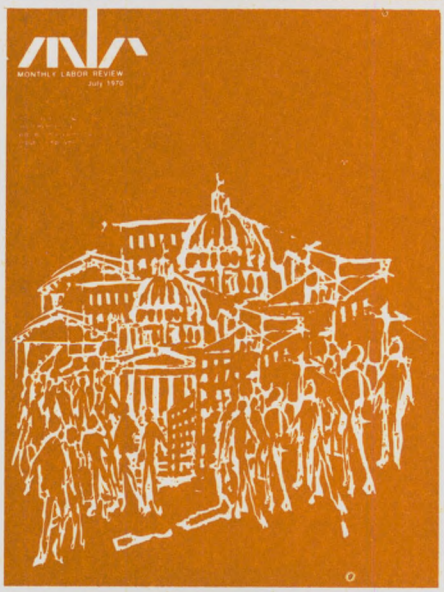

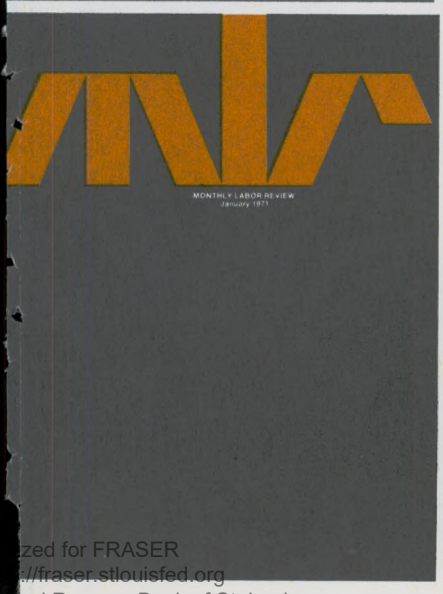

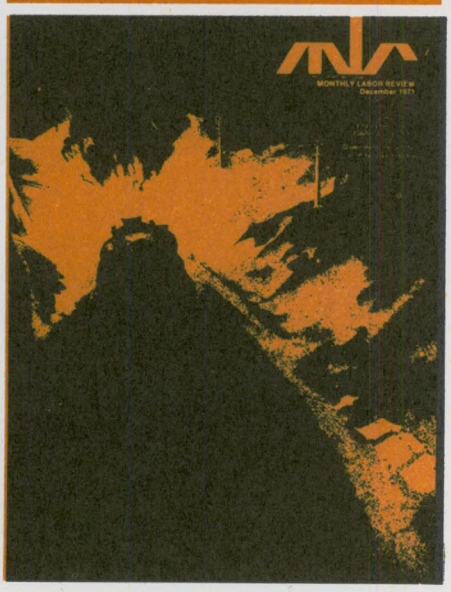

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