MONTHLY LABOR REVIEW
March 1970
U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics

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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)

March cover:
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MONTHLY LABOR REVIEW
Editor-in-Chief, Herbert C. Morton
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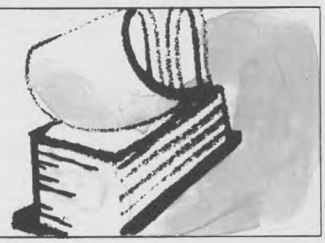
MARCH 1970 VOLUME 93, NUMBER 3

Labor Month in Review



Guidepost-mortem. The rationale for U.S. anti-inflation policy during the past year was set forth in the first annual report of President Nixon's Council of Economic Advisers. Paul McCracken, Hendrik Houthakker, and Herbert Stein reiterated their conviction that U.S. anti-inflation policy must be based on fiscal and monetary restraints, not wage-price guideposts. Concerning guideposts, the Council said flatly: "The results of our own experience and numerous trials of such policies in other countries over the preceding 20 years [do] not justify confidence that such efforts would help solve the inflation problem."

As originally put forward in 1962, U.S. guideposts were to keep the wage and benefit rise in line with the average long-term gain in output per man-hour. Prices were to remain stable ordinarily; but in a particular industry they could rise if productivity rose less than the average and they were to fall if productivity rose more than the average. While the guideposts were voluntary, the Government sought to encourage compliance by exhortation (jawboning) and by using its power as purchaser, regulator, and law-enforcer.

According to the McCracken Council, there is doubt that the guideposts ever had a measurable influence on inflation. The policy was applied during "years of considerable slack in the economy, relatively high unemployment, and stable or declining farm prices"—market conditions that favored price stability anyway. When inflationary pressures increased after mid-1965, the guidepost policy "clearly did not work," the Council report continues. "Labor and business were being asked to act as if prices were not rising, when in fact they were. As it became evident that steps necessary to keep prices from rising were not being taken, it also became more obviously unrealistic and inequitable to make these requests in specific cases. By the fall of 1966, the policy was widely recognized as unworkable, and was allowed to fade away."

Disinflation prescription. The Council report emphasizes fiscal and monetary restraint—not guideposts—as the core of 1969 anti-inflation policy. Its prescription for the past year's "disinflation," which is spelled out in detail in the report, may be summarized as follows:

Fiscal and monetary restraints result in a slowdown in the growth of purchases and sales. Businessmen respond by cutting planned output, allowing inventories to accumulate, or cutting prices in an attempt to keep volume up. As real output slows, productivity declines, cost per unit of output increases, and profits per unit drop, making employers more resistant to granting wage increases. At the same time, a softening labor market lessens workers' insistence on large wage increases. Sluggish market conditions encourage businessmen to pursue temperate pricing policies. The reduction in wage and price increases tend to reinforce each other. The longer price increases moderate, the weaker the expectation of further inflation becomes. Business and labor respond to waning inflation by making appropriate price and wage adjustments, in preference to accepting a lower volume of production and less employment. With this change, the economy is on the way to regaining full employment without setting off another round of inflation.

The Council report warns that "inflations have seldom ended without a temporary rise in unemployment. While we must direct our effort at altering the historic pattern, we cannot ignore the possibility that joblessness will rise in the period immediately ahead." The Council noted that 1970 began with a slowdown in demand, but with prices still rising. The task of economic policy in 1970, said the Advisers, is to reduce the rise of prices and revive the growth of output. Improved manpower policies can help maintain high employment by improving "the adaptation of the labor force to the pattern of the demand for labor."

New BLS study examines employment effects of past minimum wage changes and possible effects of a lower rate for teenagers

Youth unemployment and minimum wages

THOMAS W. GAVETT

OVER THE PAST 20 YEARS, unemployment among youths age 16–19 has been higher than that for adults. Since 1948, teenage [1] unemployment rates have varied from a low of 7.6 percent in the last year of the Korean War (1953) to a high of 17.2 percent in 1963. By contrast, the unemployment rate for adults over age 24 ranged from a low of 2.3 percent in 1968 to 5.6 percent in 1958.

As might be expected, there is a similarity between fluctuations in the unemployment rates for teenagers and for adults, because general business conditions affect the employment of all groups within the population. Yet the unemployment rate of teenagers has, in the 1960's, increased relative to the rate for adults.

Although, between the recession of the early 1960's and the full employment of the last few years, the unemployment rate for both adults and teenagers has decreased, the relative decline was much smaller for teenagers than for adults. The adult rate dropped almost 5 percent in the first 4 years of the decade to 2.5 percent in the last 3 years; for teenagers, from about 16 percent to 13 percent. Thus, from 1948 to 1962, the teenage rate was 3 times the adult rate; but in the last few years it was 5 times as high (table 1).

Many developments of the last 20 years could have contributed to the persistently high rates of unemployment for teenagers and the increase relative to adults in the 1960's. A substantial growth in the size of the teenage population relative to adults—from about 9 percent in the mid-1950's to 13 percent in the last few years—has compounded problems of job placement. The proportion of teenagers enrolled in school has increased from 50 to 70 percent. While school takes some teenagers out of the labor market, an increasing proportion of those enrolled in school are also in the labor market seeking jobs—jobs that fit in with the requirements of school attendance with respect to location, hours, and so on.

The movement of families from farm to city and the decline in farm employment has also meant that a smaller proportion of teenagers are employed in agriculture—a decrease from 18 percent in 1948 to 7 percent last year. Many teenagers had been employed on family farms; now they must compete in the urban labor market. Potentially compounding all these developments has been the effect of the military draft and its attendant uncertainties.

Another development of major significance to policymakers is the Federal minimum wage. According to economic theory, a wage set higher than the rate normally prevailing in the market will mean that some workers will not be able to find jobs. Probably those workers who are less productive—either because they are untrained or inexperienced or have inadequate tools to work with—will have special employment problems. A legal minimum wage might, therefore, help explain the unemployment problems of some teenagers.

In 1950 the Federal minimum wage under the Fair Labor Standards Act (FLSA) was 75 cents an hour. In the years following, the minimum was raised until, at the end of 1969, it stood at $1.60 for most workers covered by the law.[2] Of course, prevailing market wages have been increasing at the same time. Relative to average hourly earnings, the minimum wage in 1968, as indicated in chart 1, was not much different from its relative level in 1950. (See table 2.)

Perhaps more significant have been the expansions of coverage under FLSA into the retail trade and service sectors in the 1960's. Trade and service industries employ disproportionately large num-

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This is the summary chapter of *Youth Unemployment and Minimum Wages*, a Bureau of Labor Statistics study prepared under the direction of Thomas W. Gavett, Assistant Commissioner for Wages and Industrial Relations. The full study is being published as BLS Bulletin 1657.

bers of teenagers. Further, there are many low wage sectors in those two industry divisions. In 1968, for example, average hourly earnings were $2.16 in retail trade compared with $3.01 in manufacturing and $2.85 for the private nonfarm economy. (See chart 2.)

In examining past relationships between minimum wages and the high unemployment rates of youth, certain general questions must be investigated: (1) Have changes in the level of minimum wages and coverage of minimum wage laws contributed to the problem of youth unemployment? (2) Do employers avoid hiring teenagers because the wage that must be paid them is not low enough to offset the disadvantages of inexperience or lack of maturity, or are other reasons more important in inhibiting their employment? (3) Do teenagers expect wages so high that minimum wage rates are irrelevant or are their expectations high due to the minimum wage?

In addition to questions concerning past experience, two others require examination: (4) Regardless of whether or not the legal minimum wage has significantly contributed to the problem of youth unemployment, would a differential minimum wage for youth reduce that problem in the future? (5) Would any significant problems be caused by a youth differential, such as reduced family incomes or a shift in the incidence of unemployment from teenagers to other groups?

The evidence from time series

Studies of the relationship between minimum wages and teenage unemployment rates completed over the past several years have not arrived at a uniform set of conclusions. The econometric analysis undertaken for this report used several approaches to analyze data. Basically, quarterly data for 1954 through 1968 were examined for different sex-color-age groups within the teenage population. Variations in the proportion of teenagers employed and the proportion unemployed were compared with variations in the minimum wage, controlling other relevant variables. These variables included the adult unemployment rate, the proportion of teenagers employed in agriculture, the relative size of the teenage population, the school enrollment rate, and the relative size of the Armed Forces. A similar analysis of the employment experience of teenagers as a whole through a more extended period, 1948 to 1968, used annual data.

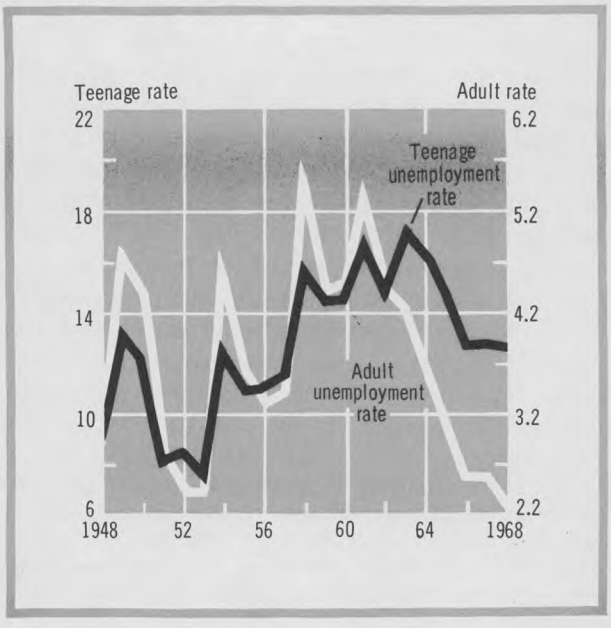
These analyses concluded that it was not possible to adequately separate out the effects of minimum wage changes from other developments. A demonstrable relationship exists between minimum wages and youth unemployment rates if other variables are *excluded* from the analysis, but when other variables such as population and school

Table 1. Teenage unemployment rates and ratios

Year	Unemployment rates, 16- to 19-year-olds			Ratio of unemployment rates, 16 to 19 years, to rate for 25 years and over		
	Total	White	All others	Total	White	All others
1948	9.2	8.9	11.2	3.17	3.30	2.49
1949	13.4	13.0	16.9	2.79	2.89	2.35
1950	12.2	11.8	15.3	2.77	2.95	1.96
1951	8.2	7.8	11.0	2.93	3.00	2.44
1952	8.5	8.3	10.5	3.54	3.77	2.33
1953	7.6	7.5	8.8	3.17	3.41	2.26
1954	12.6	12.1	16.6	2.68	2.88	1.91
1955	11.0	10.4	15.6	3.06	3.25	2.08
1956	11.1	10.1	18.1	3.36	3.48	2.66
1957	11.6	10.6	19.1	3.41	3.42	2.98
1958	15.9	14.4	27.4	2.84	2.82	2.63
1959	14.6	13.1	26.1	3.32	3.36	3.00
1960	14.7	13.5	24.3	3.27	3.46	2.89
1961	16.8	15.3	27.7	3.11	3.19	2.66
1962	14.7	13.3	25.3	3.34	3.50	2.84
1963	17.2	15.5	30.3	4.00	4.08	3.70
1964	16.2	14.8	27.3	4.26	4.35	3.79
1965	14.8	13.4	26.5	4.63	4.62	4.49
1966	12.8	11.2	25.4	4.92	4.87	5.18
1967	12.8	11.0	26.2	4.92	4.58	5.57
1968	12.7	11.0	24.9	5.52	5.24	6.23

Note: For more detail, see chapter 1.

Chart 1. Fluctuations in adult and teenage unemployment rates, 1948–68



enrollment changes are taken into account, the effect of changes in the minimum wage upon teenage unemployment becomes obscure.

The study indicated that extensions of coverage of the minimum wage had more of an effect than changes in the relative level of the minimum wage; that Federal manpower programs which produce employment for teenagers may have offset, to some degree, the disemployment effects of minimum wage legislation; and that minimum wage legislation may have had greater adverse effects upon 16- and 17-year-old than upon 18- and 19-year-old youths.

The analysis concluded on the cautious note that, "While there are hints of adverse effects of minimum wages in available data, no firm statements can be made about the magnitude of such effects."

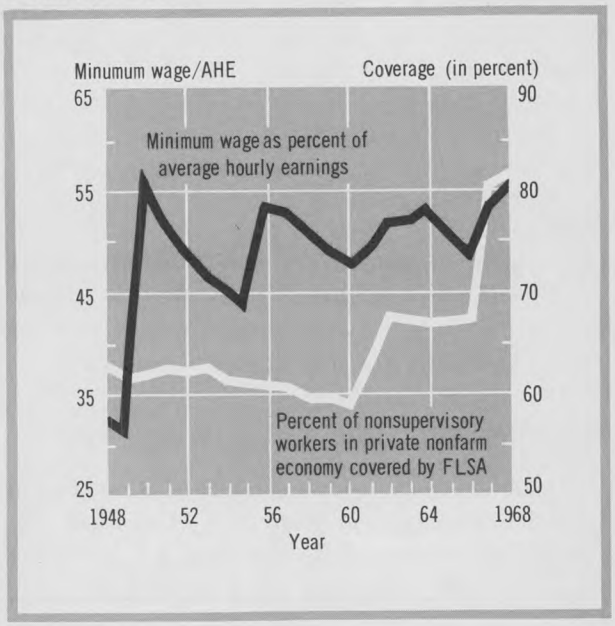
Another survey undertaken for this report differs significantly in approach from other recent studies. It traces the employment experience of an identical group of young males, 15 to 25 years of age, during a time when the Federal minimum wage was increased from $1.25 in 1966 to $1.40 in 1967 and coverage was expanded significantly. For the teenagers, as well as for older groups, the analysis showed mixed results.

Table 2. Proportion of earnings covered by the Federal minimum wage

Year	Basic minimum wage effective at end of year	Basic minimum wage as a percent of		Minimum wages as a percent of average hourly earnings weighted by industry total employment and proportion covered, private nonfarm	Minimum wages as a percent of average hourly earnings weighted by industry teenage employment and proportion of total employment covered, private nonfarm
		Average hourly earnings, private nonfarm	Total compensation per man-hour, private nonfarm		
1947	$0.40	35.4	31.3	20.3	----
1948	----	32.7	28.7	19.1	----
1949	----	31.4	27.9	18.0	----
1950	.75	56.2	49.6	32.3	----
1951	----	51.7	45.5	30.1	----
1952	----	49.3	43.1	28.4	----
1953	----	46.6	40.8	26.9	----
1954	----	45.5	39.5	25.8	18.2
1955	----	43.4	38.1	24.8	17.6
1956	1.00	53.2	46.0	30.7	21.0
1957	----	52.9	43.4	29.8	20.2
1958	----	51.3	41.9	28.3	18.4
1959	----	49.5	40.1	27.3	18.1
1960	----	47.8	38.5	26.2	17.8
1961	1.15	49.1	40.9	28.3	21.0
1962	----	51.8	43.1	32.8	27.7
1963	1.25	51.9	42.9	32.5	27.1
1964	----	53.0	43.3	33.4	27.7
1965	----	51.0	41.8	32.5	27.1
1966	----	48.8	39.5	31.5	26.7
1967	1.40	53.8	41.5	39.2	36.9
1968	1.60	55.6	44.0	42.6	40.1

Note: For explanations, see table 1.6 in chapter 1. Dashes indicate data not available.

Chart 2. Coverage of minimum wage law and changes in minimum rates as a percentage of average hourly earnings, 1948–68



Those teenagers already earning $1.40 or more in 1966 were not directly affected by the new minimum. If the minimum wage had any effects, it would be expected to lead to more time unemployed or more time spent out of the labor force by the low wage teenagers. Contrary to this expectation, table 3 shows that the average number of weeks low wage teenagers were unemployed not only declined between 1966 and 1967 but declined more than among high wage teenagers. On the other hand, the average number of weeks spent out of the labor force fell *less* among low wage than high wage teenagers, a result that is in line with expectations.

Looking at only those teenagers who were employed during the 1966 survey week, a greater proportion of low wage than high wage employees were out of the labor force a year later. However, the proportion of low wage employees who were unemployed a year later is in one case ($1 to $1.39) about the same and in another case (less than $1) below the proportion of high wage employees who were unemployed a year later.[3]

The analysis is, as the authors note, biased against finding adverse employment effects because the sample had "aged" 1 year between survey

periods, thus increasing the employability of the group; further, the data tell nothing about youth entering the labor force for the first time during this period. There was some evidence of adverse employment effects among 15- to 17-year-old students who were Negroes and had limited labor market information and among those students employed as service workers. There was, however, no evidence of a general tendency for the minimum wage increase of 1967 to create relatively more unemployment among low wage young workers. As the analysis concludes, "If the minimum wage increases did indeed create unemployment among youth, the effect was not a pronounced one."

The employers' response

In the survey of employer hiring standards in 10 cities, included in chapter 4, the most frequently cited consideration affecting employer decisions to employ teenagers under age 18 was restrictions on employment of teenagers in hazardous occupations. Chapter 9, dealing with experience under State minimum wage laws, also stresses hazardous work restrictions as well as restrictions on hours of work, the cumbersome machinery of work certificates, union restrictions, and problems of transportation as factors curbing the employment of teenagers. The uncertainty of the military draft was the reason most frequently cited by employers in weighing their decision to hire 18- and 19-year-olds, a problem underscored in the study of experience in local public employment offices in 23 areas (chapter 5). The belief that teenagers are unwilling to work for low wages is not uncommon among employers (see further discussion below). The extent to which the legal authority to pay a wage lower than the minimum would offset such problems is uncertain.

About BLS Bulletin 1657

Youth Unemployment and Minimum Wages, to be published this spring, will be available for purchase from the Bureau's regional offices or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Following is a list of chapters and of persons primarily responsible for preparing them:

1. *Introduction* reviews the changes in labor force experience of youth and in the minimum wage in the postwar period and provides the analytic framework for the study (Thomas W. Gavett).

2. *Experience of the Past: The National Minimum* provides econometric analyses of relationships between the employment and unemployment experience of teenagers and changes in the minimum wage (Hyman B. Kaitz).

3. *Effects of Changes in the Federal Minimum Wage on Employment of Young Men, 1966–67* traces changes in the employment experience of young men in a national sample during a time when the minimum rate rose and coverage was expanded (Karl Egge, Andrew I. Kohen, John R. Shea, Fred A. Zeller).

4. *Survey of Hiring Requirements and Youth Employment* studies changes between 1966 and 1969, in 10 cities, in employer hiring standards and attitudes toward hiring teenagers (Norman J. Samuels).

5. *Employment Service Local Office Experience in Serving Teenagers* describes various obstacles encountered by public employment offices in 23 areas in placing teenage workers (Irvin F. Wingeard).

6. *Wage Expectations* compares wages expected by unemployed teenagers and wages actually earned by employed teenagers (Harvey R. Hamel, Melvin Goldberg, Thomas W. Gavett).

7. *Teenage Earnings and Family Income* analyzes the importance of teenager earnings to family income (Thomas W. Gavett).

8. *Study of Full-Time Student and Learner Certification Program Under the Fair Labor Standards Act* reports the history and development of the certification program and analyze the results of a special survey of the reasons why employers did not fully use their authority to hire students and learners at special below-minimum wage rates (Clara F. Schloss).

9. *State Experience With Minimum Wage Differential Rates for Youth and Their Effect on Youth Employment* describes experience under State minimum wage laws that have differential minimums for youth (Juliet F. Kidney).

10. *Youth Wage Rate Schemes in Western Europe and Canada and Their Effect on Youth Unemployment* reviews the relevance to the United States of foreign experience (John W. Piercey).

11. *Youth Employment and Wages in Postwar Japan* reports on reasons for the high rates of overall employment and intense demand for new school graduates, along with low wages for youth (Solomon B. Levine, Gerald G. Somers).

12. *Summary and conclusions.*

Table 3. Change in labor force status, 1966–1967, men 15–19 years of age with work experience in 1966

Hourly rate of pay (dollars) in 1966	Total number with work experience in 1966 (thousands)	Change in mean weeks unemployed [1] (weeks)	Change in mean weeks out of labor force [2] (weeks)	Total number employed in 1966 survey week (thousands)	Disemployment rate (into unemployment) [3] (percent)	Disemployment rate (out of labor force) [4] (percent)
Total or average [5]	5,854	−1.9	−4.1	3,311	6.5	19.3
Less than $1.00	688	−1.3	−4.6	492	5.3	20.3
$1.00–1.39	1,941	−2.3	−3.9	1,210	6.5	21.7
$1.40 or more	1,591	−1.0	−5.5	1,165	6.4	16.1

[1] Mean number of weeks unemployed during the 12 months preceding the 1967 survey minus the mean number of weeks unemployed during the 12 months preceding the 1966 survey.
[2] Mean number of weeks out of the labor force during the 12 months preceding the 1967 survey minus the mean number of weeks out of the labor force during the 12 months preceding the 1966 survey.
[3] Proportion of those employed during the 1966 survey week who were unemployed during the 1967 survey week.
[4] Proportion of those employed during the 1966 survey week who were out of the labor force during the 1967 survey week.
[5] Total includes young men not classified by wage rate.
Note: For further discussion, see chapter 3.

Among the small number of establishments which raised age or educational hiring requirements between 1966 and 1969 in the 10-cities survey of hiring standards, the reason most frequently cited by employers for doing so was higher costs of training and hiring teenagers. Experience under State laws and experience of the public employment offices also indicate lack of education and training to be an important reason for employers not hiring teenagers for full-time jobs. Dissatisfaction with teenagers' absenteeism, unreliability, and performance on the job is common.

In principle, the lower quality of teenage labor could be offset, in the employer's calculations, by paying them a lower wage. However, under the Fair Labor Standards Act, establishments holding full-time student certificates have the legal authority to hire youth at 85 percent of the minimum wage. As reported in the study of utilization of that authority (chapter 8), only 10 percent used the certificate authority fully, and 55 percent used less than half of their authorized man-hours. Seventeen percent of the establishments holding such certificates claimed they had not fully used it because students were unsatisfactory workers (table 4). Apparently for some employers at least a 15-percent "discount" was not enough to offset the poorer quality of student help.

All this does not mean that wages—and the legal minimum wage in particular—are ever irrelevant. Although local employment service offices generally said minimum wages were not an important reason for the difficulty in placing teenagers in full-time jobs, minimum wages were cited as a problem more frequently in the case of 16- to 17-year-olds (table 5). The minimum wage was the second most common reason for employers raising hiring standards between 1966 and 1969, though such companies represented less than 5 percent of all employers in every city covered and less than 1 percent in most cities. The relatively tight labor market for adults in the last 3 years, however, probably kept most employers from raising their hiring standards. A minority of employers covered in the survey of hiring standards did consider the minimum wage an important factor affecting their decision to hire teenagers (table 6). Employers located in small towns cited the minimum wage more frequently than employers located in large cities and more frequently with reference to 16- to 17-year-olds than 18- to 19-

Table 4. Numerical distribution of establishments not utilizing or not fully utilizing full-time student certificates by degree of utilization and reasons for less than full utilization of certificates

[Data relate to certificates in effect on April 30, 1969, and reflect utilization during the period May 1, 1968, to April 30, 1969]

Degree of utilization	Number of establishments with certificates	Number of establishments not utilizing or not fully utilizing certificates	Reasons for not utilizing or not fully utilizing certificates												
			Fully staffed	Certificate restrictions	Record-keeping	Full-time students unwilling to work at subminimum wages	Full-time students unsatisfactory workers	Prefer to hire regular workers	Company policy to pay minimum wages	Legal restrictions	Temporary operational problems	Self-imposed restrictions	Delay in school verification student status	Union restrictions	Other reasons
Total	4,615	4,163	2,168	799	881	868	788	600	504	396	356	332	223	120	39
Less than 20 percent	1,484	1,484	564	321	425	339	199	243	282	111	189	49	136	80	14
20 percent to 49 percent	1,085	1,085	641	198	212	211	236	151	98	114	82	78	50	36	12
50 percent or more	2,046	1,594	963	280	244	318	353	206	124	171	85	205	37	4	13

Note: For further discussion, see chapter 8.

Table 5. Rank importance of reasons for difficulty in placing teenagers based on local office experience during fiscal year 1969, average, all areas

[Rating Scale: Very important = 3; Important = 2; Unimportant, irrelevant, or not true = 1]

Reason	Full-time jobs		Part-time jobs	
	16–17 years	18–19 years	16–17 years	18–19 years
1. Level of the minimum wage has caused employers to seek older, more experienced workers for jobs	1.77	1.54	1.66	1.52
2. Unwillingness of teenagers to accept wages usually offered for jobs they are qualified to take	1.79	2.10	1.64	1.87
3. Uncertainty over the draft makes employers reluctant to hire teenagers	1.32	2.44	1.18	1.48
4. Legal restrictions on hours of work, hazardous work, or other working conditions for teenagers	2.75	1.41	2.71	1.45
5. Hiring specifications of employers with respect to education and experience are so high that most teenagers are excluded	2.28	1.95	1.96	1.54
6. Employers' hiring specifications with respect to age exclude teenagers	2.44	1.56	2.23	1.47
7. Employer fear of higher cost of workman's compensation and other insurance when teenagers are employed	2.19	1.59	2.09	1.48
8. Employers believe teenagers are not reliable	2.54	2.10	2.30	1.95
9. High labor turnover among teenagers	2.31	2.14	2.22	2.01
10. State laws require too much paper work, such as work permits	1.85	1.07	1.59	1.05
11. High cost of hiring and training teenagers	1.65	1.58	1.57	1.41
12. Union contract provisions	1.63	1.40	1.72	1.38

year-olds. Further, employers—as did the public employment offices—cited the minimum wage as an important factor more frequently in the case of younger teenagers. A modest number of establishments did apply for full-time student and learner certificates under the FLSA, though less than half the authorized time was actually used.

The evidence suggests, therefore, that some employers would be willing to hire more teenagers at lower wage rates. However, legal restrictions on the employment of youth and apprehension over the quality of teenagers as employees are probably even more important impediments to the employment of youth.

Expectations of youth

Throughout the Nation, a commonplace belief among employers and others is that young workers expect unduly high wages and are disinclined to accept low status (frequently equated to low wage) jobs. Close to 20 percent of the employers holding full-time student certificates under FLSA claimed they did not fully utilize the authority because students were unwilling to work at subminimum rates. Certainly there is much anecdotal material on the alleged unreasonableness of teenagers.

However, a 1967 survey of young men throughout the Nation indicated that the *average* wage expected by unemployed teenagers was less than the average wage actually earned by those who were employed (table 7). Further, large numbers of teenagers, both unemployed and out of the labor force, did indicate they would accept jobs at less than the $1.40 legal minimum in 1967.

Findings from the Urban Employment Survey (UES), a survey of residents of selected poverty areas of six large cities, suggest that average earnings expectations of currently unemployed teenagers did not exceed average hourly earnings actually received by employed teenagers. In the July 1968–June 1969 survey period, the median wage expected by unemployed teenage boys and girls was less than the wage actually received by those employed.

The reported proportion of unemployed young men willing to accept employment in 1967 at wages below the Federal minimum was less, however, than the proportion of teenagers actually employed at lower wages. The same was true of teenagers, especially the males, in the Chicago and New York poverty areas in 1968–69. These bits of evidence lend some support to the supposition that the unemployment of some teenagers can be attributed to high wage expectations.

The average duration of unemployment for teenagers is short. While this is partially attributable to their ability to withdraw from the labor force, it suggests also that high wage or status expectations of teenagers are not enduring.

Table 6. Percentage of establishments covered by FLSA reporting the minimum wage as a factor in the decision to hire teenagers, by city and age group

City	Under 18			18 and 19		
	Very important	Important	Not important	Very important	Important	Not important
Atlanta	14	21	65	9	18	73
Detroit	16	24	60	11	18	71
Cleveland	10	17	73	9	16	75
Baltimore	10	20	70	9	18	73
Milwaukee	11	16	73	8	11	81
Los Angeles	8	14	78	6	11	83
Battle Creek	23	23	54	13	19	67
Auburn	20	28	52	13	31	56
Galveston	19	24	57	13	20	67
El Paso	31	25	44	25	28	47
Unweighted average:						
6 large areas	11.5	18.7	69.8	8.7	15.3	76.0
4 small areas	23.2	25.0	51.8	16.0	24.5	59.3

Note: For further discussion, see chapter 4.

Table 7. Rate of pay required to induce youth to accept employment or to enter labor force, and hourly rate of pay for those employed, by age and color, 1967

Age and 1967 labor force status	Total number (thousands)	Less than $1.40	$1.40 to $1.99	$2.00 to $2.99	$3.00 or more	Mean pay required or earned
	Whites					
Age 15–17:						
Out of labor force	808	51.1	44.5	3.9	0.5	$1.32
Unemployed	400	43.0	50.9	4.8	.0	1.35
Employed	1,968	47.5	37.9	9.9	4.7	1.95
Age 18–19:						
Out of labor force	196	13.8	57.2	23.0	6.0	1.69
Unemployed	141	18.0	46.1	29.7	6.2	1.76
Employed	1,493	25.2	33.6	30.9	10.3	1.93
	All others					
Age 15–17:						
Out of labor force	161	64.8	30.5	3.3	1.3	$1.30
Unemployed	99	58.8	33.5	7.7	.0	1.30
Employed	297	51.6	35.6	9.4	3.4	1.53
Age 18–19:						
Out of labor force	19					
Unemployed	42	28.8	48.1	20.5	2.6	1.61
Employed	212	37.6	29.8	22.3	10.3	1.75

Note: For further discussion, see chapter 6. Dashes indicate data not available.

The available evidence indicates that teenagers are knowledgeable about prevailing wage levels and adjust their expectations according to differences in levels between areas and overtime. There is some evidence that unemployed teenagers are disinclined to accept the lower wage jobs. Minimum wages may be a factor influencing these expectations. These expectations contribute, at least in the short run, to unemployment problems, but do not appear to be a major obstacle to reducing teenage unemployment.

A youth differential

Whether or not the minimum wage has been a significant factor in causing youth unemployment, the question of the effects of a youth differential is a different issue. There has been only limited experience with these differentials in the United States. They currently exist in Federal minimum wage legislation in the form of the certification programs under FLSA and also in a variety of forms in State laws. In other countries—in Western Europe, Canada, and Japan (chapters 10 and 11)—youth differentials exist by law, contract, or custom to a much greater extent than in the United States.

The certification programs cover a limited number of workers and establishments. Employer interest in the certification programs has increased at times of minimum wage law changes, though trend data on issuance of certificates do not necessarily measure usage. The study of these programs points out that the authority to hire young workers at rates below the minimum does not automatically mean the opportunity will or can be fully used by employers to increase employment of youth; the modest abatement of rates provided in those programs was, by itself, inadequate. The full-time student certification rates were less meaningful in the South where wage levels are generally low, the student rate thus providing a smaller incentive to hire youth.

Differential rates in State minimum wage laws—commonly 80 percent of the adult rate—have had limited effects on unemployment rates. State laws are not relevant where the Federal law applies if the State minimum is below the Federal. In a number of States, small establishments and certain occupations where teenagers are employed are exempt from State law. Further, entry wage rates in some areas are far above the State minimums.

Over 40 percent of the local employment service offices believed employers would hire appreciably more 16- and 17-year-old teenagers if it were possible to pay less than the Federal minimum, but only 26 percent of the offices believed this would be true of 18- and 19-year-olds. About 90 percent of those offices which believed it would make a difference, thought the reduction in the minimum wage that would be necessary would not exceed 40 cents.

The studies of the certification program, State experience, and the survey of local employment offices suggest that if a youth differential is to be meaningful, it would need to be a fairly substantial differential— perhaps at least 20 percent below the adult rate—and that the relationship of the adult minimum to average wage levels could not be far below the historic ratio.

The evidence from abroad indicates that low wages for youth are an inducement to employers to seek young workers eagerly. The relatively low youth unemployment rates abroad (table 8) are partially a reflection of the fact of low wages for youth. In the United Kingdom, the Netherlands, and Japan, young workers start work at about one-third the adult rate. In the United States in 1967, 15- to 17-year-old boys received a wage which averaged about 70 percent of the average wage paid those 20 to 25 years old. Much of this difference reflects a different mix of jobs and job status in the two age groups.

One element of the Japanese experience—low wages for youth—cannot be divorced from other parts of Japanese institutions. For example, the

Table 8. Unemployment rates and the youth-adult unemployment ratio for selected countries

Countries	Adult unemployment rate		Youth unemployment rate (15–19 years)		Youth-adult unemployment ratio [1]	
	1960–64	1967–68	1960–64	1967–68	1960–64	1967–68
Germany (1961–67)	0.3	1.1	0.3	1.1	1.0	1.0
Canada (1962–66) [2]	6.9	4.0	14.7	9.7	2.4	2.6
Netherlands (1960)	0.9		1.4		1.8	
United Kingdom (1961–67)	[3] 1.3	[3] 2.0	[3] 0.9	[3] 2.2	[3] 0.6	[3] 1.1
	[4] 1.7		[4] 2.3		[4] 1.4	
Sweden (1964–67)	1.7	2.2	3.9	5.5	2.6	3.4
France (1960)	1.5		6.6		4.4	
Belgium (1960)	2.5		4.0		1.7	
Italy (1961–67)	3.4	3.5	9.3	11.4	4.9	5.7
United States (1960–68)	5.5	3.6	[5] 14.7	[5] 12.7	3.3	5.5
Japan (1962) [6]	0.9		1.4		1.6	

[1] Ratio of youth unemployment rate to adult unemployment rate for adults 25 and over.
[2] Ostry, Sylvia, **Unemployment in Canada, 1968,** males only, ratio: youth–all ages.
[3] Labor Ministry data from unemployment insurance records.
[4] Census data for April 1961.
[5] Youth unemployment data relate to 16- to 19-year-olds.
[6] Levine and Somers, **Youth Employment and Wages in Postwar Japan.** Ratio: youth–all ages.

nenkō system with its virtual lifetime guarantee of employment within the firm and high wages in later years offsets low wages in youth.

Low wage rates for youth in Europe cannot be separated from the extensive apprenticeship programs in Britain, Germany, and the Netherlands. These programs help to channel children from school to work. Moreover, the nenkō system in Japan and the apprenticeship system in Europe are undergoing change, or at least attack, with possible ramifications for youth differentials in those countries.

In the Soviet Union, young workers by law have a shorter workday, a longer annual vacation, and higher wage rates than adults doing the same type of work—just the opposite of experience in western Europe and Japan. The 16- and 17-year-old works 7 hours a day and 5 days a week; 15-year-old apprentices work 5 hours a day. The young worker gets the same daily or monthly basic pay that an adult gets for working 8 hours a day at the same type of work. There have been reports in the Soviet press that many managers of establishments have been reluctant to hire young workers because of the extra cost involved. To combat this practice by employers, a joint party-government decree of February 2, 1966, established quotas of jobs for youth, the size of the quotas varying among branches of the national economy.[4]

In the United States, the overwhelming proportion of teenagers belong to a part-time, part-year labor force. Almost three-fourths of the teenagers are enrolled in school. Experience in foreign countries having institutions different from those in the United States has a limited application to American teenagers who are much less likely to be looking for a "permanent" job.

The employment advantage of a youth differential would be restricted by the fact that many teenagers are available for only part-time employment and have a limited geographic mobility. It would also be restricted by American wage-setting institutions which emphasize a wage for a job, not an age-wage relationship, and further limited by legal restrictions on the employment of youth.

The effects of differential rates

The analysis of the relationship between teenage earnings and family income (chapter 7) points out that very few teenagers contribute a significant share of family income. Since 73 percent of the teenagers who worked in 1966 earned less than $1,000 per year, their low earnings are more affected by the number of hours of work they find than by the wage rate. Wages paid teenagers are, of course, not solely dependent on the minimum wage.

Reports from abroad do not indicate that adult employment has been affected adversely by lower minimum rates for teenagers. However, the European countries and Japan have had very low overall levels of unemployment. Thus, experience abroad does not provide a clear test of the effects of introducing a system of youth differentials. Past experience in the United States is no sure guide, since differential rates for youth have been used to only a limited extent.

Youth differentials are common in most State laws with no apparent evidence of adverse effects. State minimum wage levels are not, however, always meaningful relative to prevailing wage levels. About 40 percent of the local employment service offices believed that a lower Federal minimum wage for teenagers would have adverse effects on employment of other groups; this was, however, only an informed judgment. Available materials do not permit any firm conclusions about adverse effects of a youth differential minimum wage.

Conclusions

1. Increases in the level and coverage of the Federal minimum wage may have contributed to the employment problems of teenagers, but it is difficult to disentangle such effects from numerous other influences.

Prior to the 1960's, relatively few teenagers were employed in establishments covered by the Fair Labor Standards Act. Prior to 1966, agriculture (where teenagers are employed as family workers) was totally exempt; domestic service still is. Services and trade were generally excluded from the law prior to 1961, and even now small establishments are exempt. The longrun rise in the unemployment rate of teenagers relative to that of adults—especially marked since 1962—appears to have been associated with many factors. Compounding problems have been the increase in the relative size of the teenage population, the increase in the proportion of youth enrolled in school, and the shift of employment out of agriculture. Although neither of the latter two factors may explain much of the relative rise in teenage unemployment, they do mean that one easy-access labor market, namely, the family farm, is available to a smaller proportion of youth and that the types of employment sought by teenagers (outside school hours) cover a restricted range of existing employment opportunities. The increase in the number of teenagers in school has, on the other hand, taken some of them out of the labor force.

The magnitude of the employment effects of minimum wage legislation probably has been small, as the studies included in this report underline, and, consequently, difficult to measure precisely. It should be kept in mind, however, that (1) many teenagers have, until very recent years, been employed in sectors of the economy not covered by FLSA, (2) minimum wage levels have not been markedly high relative to prevailing wage levels, judging by historical ratios, and (3) the importance of minimum wages, in the periods between Congressional action, has been partially offset by increases in money wages, tending to make any disemployment effects a shortrun phenomenon. Also, as the econometric study included in this report points out, adverse employment effects of the minimum wage may have been, in recent years, offset by Federal manpower programs.

The high unemployment rates of teenagers have not brought about a drop in the relative wage paid teenagers and, hence, an increase in their employment opportunities. Certainly, a legal minimum wage, on its face, means wages are inflexible downward. Because minimum wages have been periodically increased to maintain about the same level of parity with average earnings, any tendency for the spread between lower and higher rates to increase has been offset, except in the shortrun.

Not all sectors of the economy have been covered by FLSA; other labor market institutions, including union contracts, have also affected wage levels and wage rigidity. Unlike Britain, France, or Japan, American wage-setting institutions have generally developed the practice of setting a wage rate for a job regardless of who holds the job. In other countries a young clerk, for example, may receive less than an adult doing the same work in the same company simply because he is young, but this has not been the practice in the United States. Rather, any wage differences associated with age are usually attributable to young people holding different types of jobs than adults. Longevity or seniority increases are less important than occupational wage differentials; further, longevity increases are a function of length of service on a particular job, not chronological age *per se*. A company's demand for workers to do a particular job within the company is limited. Except to the degree that almost all persons holding a particular job in a company are teenagers, the nature of American wage-setting institutions would reduce (but not eliminate) the possibility of a relative decline in wages paid teenagers even if there were no minimum wage legislation.

A cautionary note should be added. If the minimum wage as a percent of average hourly earnings was more than the 50-percent range prevailing in the postwar period or if coverage was extended to new areas, past experience would not serve as an accurate guide to future employment effects.

2. Employer attitudes—as reflected in both the survey of employers and the response of the public employment offices—experience under the certification programs, and experience in other countries suggest that a substantial differential between youth and adult rates would increase the employment of teenagers. The incentive of a large differential would help to overcome the apprehensions employers have indicated over the quality of teenagers as employees. The evidence indicates the differential would especially affect the decisions of employers to hire 16- and 17-year-old teenagers and particularly employers located outside the large urban centers. The effect of a youth differential

would depend on the size of the difference between the youth and adult minimums, the relation of the adult minimum to the current average hourly earnings of rank-and-file workers, and the simplicity of the regulations. Even then, the effect of the differential would be restricted by conditions unique to the American scene.

If a youth differential were instituted in the 1970's, it would be difficult to evaluate its effects without better data, especially frequency distributions of wages of workers in the American economy along with demographic information on the workers. The effects of a youth differential must be separated from other developments. During the coming decade, the teenage population will increase 12 percent, compared with 40 percent in the 1960's. Assuming no major decline in economic activity, this slower rate of growth, alone, should help ease problems of absorbing teenagers into the employed labor force. □

———*FOOTNOTES*———

[1] Throughout the study, the terms "youth," "teenagers," and "young people" have been used interchangeably. Unless otherwise specified, the terms refer to 16- to 19-year-olds.

[2] See chart 2 and table 2 for some additional detail.

[3] More sophisticated statements of tests and further data can be found in chapter 3. If columns 2 and 3 of table 3 are added, the expected adverse pattern appears. This is not true, however, when data are controlled by school enrollment status. See table 3.6 in chapter 3.

[4] *Sovetskie profsoyuzy* [Soviet Trade Unions], No. 12 (June 1967), p. 47.

Resolving community disputes

A proposal by Theodore W. Kheel, published in the *Monthly Labor Review* (January 1969), has led to the creation of two new organizations designed to apply the techniques of collective bargaining to the resolution of community conflicts.

The two new organizations, established under a grant from the Ford Foundation, are:

The Board of Mediation for Community Disputes. This board "will seek to aid community groups resolve their differences with each other and with public agencies. It will help develop bargaining relationships and make available techniques of conflict resolution to community groups which are divided over issues of education, housing, welfare, poverty, model cities, and other areas of public concern."

The Center for Conflict Resolution. "The center will offer training courses in community negotiations, mediation, and public employment dispute settlement. It will also sponsor research and case studies in the field of community and racial conflict."

The Center will operate under the auspices of the Institute for Collective Bargaining and Group Relations.

Both the Board of Mediation and the Center for Conflict Resolution have their headquarters in Automation House, 49 East 68th Street, New York, N.Y. 10021.

A data system for measuring and analyzing public programs

Detailed specification of the powers, functions, and responsibilities of a Federal data center might satisfy Congressional doubts about invasion of privacy

CHARLES L. SCHULTZE

DESPITE A FLOOD of raw data about new programs, the provision of meaningful information to decisionmakers has lagged abysmally behind their needs.

From two points of view, information is grossly insufficient. First, while our existing data systems (national income accounts, flow-of-funds, etc.) have performed well for macro policy decisions, they are highly imperfect or completely useless as a measure of performance and a means of setting goals in the micro areas of social programs (manpower training, education, health care, and so on). Second, we have little knowledge of the micro production functions connecting program inputs with program outputs in most governmental social programs.

Data requirements

These two objectives—measuring social performance and analyzing social production functions—share certain common data requirements. To pursue either of these objectives, three types of data needs will loom large:

1. *Matching data on individuals (and institutions) from different surveys and administrative files.* The data available from any one survey, including the census, will not alone be sufficient. Social Security and Internal Revenue Service data must be matched with each other and with census data. Special surveys (on juvenile delinquency, for example, or on health status) must be matched with census and other demographic files. Similarly, in analyzing micro production functions, it will obviously be necessary to isolate the effect on output of demographic variance as opposed to program input variance. Matching program file data with demographic file data may be the only way to avoid expensive and repetitive special surveys for each program analysis.[1]

2. *Longitudinal data files.* The difficulties of using either cross-section data or aggregative time series, particularly for isolating specific input-output relationships, are too well known to need repetition here. In some cases, particularly for detailed production function analysis, longitudinal data will be absolutely essential. In other cases, for example in developing transition probabilities, longitudinal data can substantially improve estimates obtained from a comparison of the status of successive cohorts.

3. *Making available to the analyst individual file data, as opposed to summary classifications.* The treatment of data by statistical agencies and users is still primarily oriented to the precomputer days in which the primary objective was to publish summary classifications. Use of summary classifications as raw input into analytic models sharply reduces the power of the analysis. It reduces variance, massively increases collinearity problems, and suppresses information.

Given the capability of modern computers, publication of summary classification as the primary means of transmitting data to users represents a major waste of statistical information. Users must be in a position to manipulate samples of original data files.

The privacy problem

Organizing the Federal statistical effort to meet these principal data needs of public policy analysis runs headlong into the problem of privacy. Congressional concern about privacy has grown at least as rapidly as professional concern over data

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gaps. And, not surprisingly, the former has prevailed.

In 1967 the House Appropriations Committee dealing with the Census Bureau held up the Bureau's appropriations until it extracted a promise from the latter *not* to enter social security numbers on census records. And without social security numbers, the difficulties of file matching are enormously increased. This year, there was a major attempt in the Congress to make all responses to the 1970 census voluntary, except for a few rudimentary pieces of demographic data. The House has passed a bill requiring the census to clear each of its 1980 census questions with the Congress. Several years ago, an attempt to move towards the establishment of a Federal data center foundered on congressional hostility, principally on account of fears about invasion of privacy.[2]

This is not the occasion for an analysis of the privacy problem or for a detailed justification of a Federal data center.[3] Several points are worth making, however.

A perusal of congressional hearings on the proposed data center makes it clear that opponents and proponents were talking at cross purposes. Congressmen and witnesses concerned with invasion of privacy imagined some huge data "dump" in which all survey and administrative files (including security information and criminal records) would be brought together and somehow merged into a master tape, whose code could some day be broken by unscrupulous users seeking power or personal gain. But such a data "dump" is neither needed nor intended. What is required are some very limited and specific improvements over the current system.

The proposal

First, a highly competent staff should be established in a central statistical development agency, whose function would be creative in nature. Primarily, the agency would be responsible for developing the systems described below. The agency would operate under Census Bureau confidentiality rules.

Second, careful reference and file documentation standards should be developed for existing statistical agencies and the statistical files of administrative agencies.

Third, matched sample files, providing high demographic and social status information content, should be developed. Dossier-type information from legal and judicial files would be excluded.

Fourth, where sample characteristics were such that individual file data could be made available without the possibility of individual identification, they should be. Where confidentiality made such release impossible, computer techniques should be developed allowing user computers to manipulate the data file but to provide only "result" measures to the users. That is, the systems would not permit user computers to "output" file data. With the development of on line communication capability between remote computers, such techniques should be easily achievable.

Fifth, the central agency, with the cooperation of users, should develop model files which could then be manipulated by users. Joseph Pechman at Brookings, for example, has a sample file of 100,000 tax returns which permits analysis impossible from summary published data. To calculate the impact of a specific change in the tax laws, the computer simply recomputes the tax liability of each unit in the sample. To estimate the income elasticity of existing or proposed tax systems, the analyst feeds in a series of income and income distribution assumptions, and the computer recomputes tax liabilities at alternative income levels. Such models could be developed in other areas and made available.

Sixth, the central agency should develop the most effective techniques by which individual analysts could supply to the data agency file data collected from special surveys, have the data matched with particular files, and receive back the combined results, in appropriate summary form. For certain kinds of information (for example, juvenile delinquency or criminal records), the system should insure that the resulting individual matched files are never "outputted" and the core memory is erased.

Seventh, the central development agency should be given authority to seek special appropriations with which to supplement the budgets of administrative agencies—this to ensure that administrative files are collected and maintained in such a way as to maximize their legitimate statistical usefulness.

Concern over privacy is a salutary one. The actual dangers to individual privacy from a carefully conceived statistical data system, however, are de minimis. Indeed, the irony is that the

confidentiality record of statistical agencies is superb. It is not they who collect "damaging" information; or who leak derogatory information collected by wiretap to national magazines.

Nevertheless, whatever the facts, it is clear that no progress will be made toward the kind of data system we need for public policy purposes until the doubts of those who raise the privacy problem are stilled. And here, I believe, the only way to do this is to develop a carefully limited proposal for a data development center. It is clear that opposition to a data center stems in part from the excessive generality which has characterized prior proposals for a data center. A detailed specification of the powers, functions, and responsibilities of a data development center must be worked out in advance. Emphasis must be placed on the fact that such a center would not be a data "dump," that it would deal primarily in sample populations, that it would not maintain "derogatory" information of any kind, and that it would have confidentiality standards of a census nature, which, in turn, are much tighter than those used by most administrative agencies. Perhaps, with such a precisely detailed and limited approach, some progress could be made towards developing the kind of information systems needed for public policymaking. □

——FOOTNOTES——

[1] For a description of several attempts to match special survey or administrative data with census files, see D. M. Nitzberg and H. Sardy, "The Methodology of Computer Linkage of Health and Vital Records," E. S. Pollack, "Use of Census Matching for Study of Psychiatric Admission Rates," and J. E. Simpson and M. D. Van Arsdol, "The Matching of Census and Probation Department Record Systems," in *Proceedings of the American Statistical Association, Social Statistics Section, 1965*, pp. 100, 107, and 116, respectively.

[2] *The Computer and Invasion of Privacy, Hearings Before the Committee on Government Operations* (U.S. House of Representatives, 89th Cong., 2d sess., 1966).

[3] The three basic documents outlining the advantages of a central Federal data center and outlining proposals for such a center are the Ruggles report, the Dunn report, and the Kaysen report. R. Ruggles, et al., "Report of the Committee on the Preservation and Use of Economic Data to the Social Science Research Council" (New York Social Science Research Council, 1965); E. Dunn, "Review of Proposal for a National Data Center," a report prepared for the Bureau of the Budget and reprinted in "The Computer and Invasion of Privacy," op. cit.; and C. Kaysen, et al., "Report of the Task Force on the Storage of and Access to Government Statistics" (U.S. Bureau of the Budget, 1966).

Improving our economic data

. . . Our demands for economic data of high quality keep outrunning the supply. The Federal Government is not alone in requiring better statistics, since to an increasing extent businesses have been making use of economic data for planning their own operations. Indeed, never before have so many businesses watched so closely the economic indicators that appear each month or quarter. . . .

Accurate data are also needed in order to help analyze the past and find relationships that have some degree of stability. Accomplishing this aim is obviously only partly a question of statistics; the economy is, of course, more than a mechanism. For example, swings in sentiment and attitudes in our affluent economy have a powerful effect on the inclinations of consumers and businesses to spend. Consumer behavior has been especially difficult to predict in recent years, and may be more complex than had been thought previously. Business decisionmaking is equally complex. Yet economic analysis is a continuing search for patterns of regularity that can be helpful in forming judgments about the economy. And the first requirement for this search is reliable basic data.

—*Economic Report of the President, 1970.*

Trade unions in the performing arts

Casual nature of employment in concert hall, on stage and screen, has led to a high degree of unionization

MICHAEL H. MOSKOW

THE LIVE performing arts are highly unionized. Almost all the paid performers and supportive personnel are members of at least 1 of the 23 different unions or branches with jurisdiction in the performing arts (table 1). Most of the unions are well-established organizations, having been formed in the early 1900's; all but five are affiliated with the AFL–CIO.

Causes of unionization

It is not known what determines the degree of unionization in an industry, but in the performing arts several probable causes can be identified. First, there is a history of exploitation by some managers and booking agents. It was not uncommon 60 years ago for a producer to cancel a performance during the rehearsal period or on the opening night because of low ticket sales. In many such cases performers were paid neither for rehearsals nor for the loss of time in making themselves available for the canceled performance. These unfair practices frequently solidified the employees and made clear the need for some type of group action in countering the inherent power of a manager or producer.

The casual nature of the labor market in the performing arts is another reason for the high degree of unionization. In the commercial theatre, organizations are formed specifically to produce a particular play and then disband as soon as the play closes or the business associated with production is completed. Jobs tend to be of an ad hoc, short-term nature, and performers as well as supportive personnel rarely work for the same organization for an extended period of time. The constant changing of jobs places employees in a vulnerable position, and they may be forced to compete for jobs on the basis of pay rates. There is little incentive for an employer to provide fringe benefits such as pensions and welfare plans to temporary employees.[1]

Under such circumstances, the union is one of the few stable forces in the industry, controlling the labor market and offering employers a ready pool of skilled workers. The employer finds it easier to contact the supportive union when employees are needed than to attempt hiring them by other means. This in turn strengthens the union, with the result that persons wishing to work in the industry find it essential to join the union. Interestingly enough, most unions in the performing arts rarely try to organize new members; instead, the potential members seek out the union.

The unions of actors, musicians, and stagehands all seem to have gained considerable strength from the ad hoc nature of the industries in which most of their original members worked. For example, the founders of the American Federation of Musicians (AFM) were all single-engagement musicians who, by definition, had short-term employment. Today the vast majority of members of the musicians' union still are single-engagement musicians, working sporadically in dance bands or small musical groups. The high degree of unionization among such musicians probably has had a "spill-over effect" on the orchestral musicians.

In the resident theatres, most actors have worked or aspire to work on Broadway or off-Broadway, where theatres are completely unionized. The actors in resident theatres frequently want to be represented by Actors' Equity Association; membership in the union is a sign of achievement in the theatre world, and they want

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Michael H. Moskow is a Senior Staff Economist with the Council of Economic Advisors, on leave from Temple University. This article is drawn from a larger study, *Labor Relations in the Performing Arts: An Introductory Survey*, recently published by the Associated Councils of the Arts. The ideas expressed are the personal views of the author.

Table 1. Unions in the performing arts

Name of union	Jurisdiction	Membership in 1968 (in round numbers)
Performer unions:		
Associated Actors and Artistes of America (Four A's):		
Actors' Equity Association (Equity)	Actors, stage managers, chorus directors, and choreographers	14,000
American Federation of Television and Radio Artists (AFTRA)	Actors, singers, dancers, announcers, newscasters, sound effects artists, disc jockeys, graphic artists, and supernumeraries for radio, recordings, and live or taped television productions.	23,000
American Guild of Musical Artists (AGMA)	Singers, choristers, choreographers, dancers, stage directors, stage managers, and instrumentalists.	4,000
American Guild of Variety Artists (AGVA)	Cabaret, vaudeville, burlesque, and circus performers	12,500
Hebrew Actors Union (HAU)	Specialized actors	200
Italian Actors Union (IAU)	Specialized actors	90
Screen Actors Guild (SAG)	Actors in motion pictures, filmed television productions, industrial films, educational films, and governmental films; also voices and dubbing.	21,000
Screen Extras Guild (SEG)	Film extras	3,600
American Federation of Musicians (AFM)	Musicians, conductors, librarians, arrangers, copyists, and orchestrators	283,150
Professional organizations [1]:		
Association of Theatrical Press Agents and Managers (ATPAM)	Press agents, house managers, and company managers	600
Directors Guild of America (DGA)	Directors, assistant directors, associate directors, stage managers, and production assistants in television and motion picture industries.	3,480
Dramatists Guild of America (DGA)	Composers, lyricists, and authors of any material used in live theatre	1,850
Society of Stage Directors and Choreographers (SSD&C)	Stage directors and choreographers	380
United Scenic Artists (USA)	Costume, lighting, and scenic designers	850
Writers Guild of America (WGA)	Writers for television, radio, and motion pictures	4,180
Supportive unions:		
International Alliance of Theatrical Stage Employees (IATSE)	Stagehands, carpenters, electricians, treasurers, ticket sellers, wardrobe attendants, makeup artists, film editors, publicists, script supervisors, studio mechanics, film cameramen, and laboratory technicians.	60,000
International Brotherhood of Electrical Workers (IBEW)	Broadcasting technicians and recording engineers	12,800
International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America (IBT):		
Local 399 (Hollywood)	Studio transportation drivers	1,700
Local 817 (New York City)	Chauffeurs and helpers for motion pictures, theatre, television, and concert transports.	300
International Union of Operating Engineers (OE), Local 30	Engineers, mechanics, and helpers	3,600
National Association of Broadcast Employees and Technicians (NABET)	Broadcasting technicians	8,600
Retail Clerks International Association (RCIA), Local 1115–C	Cloak room attendants	Not available
Service Employees International Union, Local 9 (San Francisco) and Local 54 (New York City), Theatre, Amusement and Cultural Building Service Employees (SEIU)	Ushers, ticket takers, special guards, doormen, porters, cleaners, matrons, watchmen, elevators, programs distributors, and roundsmen.	Not available

[1] Not affiliated with the AFL–CIO, except for the United Scenic Artists, which is an affiliate of the Brotherhood of Painters, Decorators and Paperhangers of America.

Source: U.S. Department of Labor, Bureau of Labor Statistics; also union constitutions and personal interviews with union leaders.

their work in the resident theatres to be considered "professional."

A further reason for the high degree of unionization in the live performing arts is the strategic position of the performers and supportive personnel. The product depends ultimately on the people working on the production. A play cannot be presented without actors or stagehands. This characteristic of the industry gives the employees tremendous bargaining power and enhances their ability to force the employer to recognize and to bargain with their union.

The performer unions also gain much in strength when they have in their ranks star performers. These "name" artists, who derive little benefit from union membership since their salaries and working conditions far exceed the minimum standards negotiated by the union, have considerable individual bargaining power. When they support the union, they greatly enhance its position vis-a-vis the employer and, even more important, perform a leadership function in obtaining support for the union from less well recognized performers.

It is difficult to say why name performers join and support unions, but the general social consciousness and the sense of family that exist in the performing arts may be among the causes. It is important to note, however, that the unions

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have been able to adapt their structure and operations to the unusual phenomenon of individual bargaining.

Performer unions

In the performing arts, all performers except symphony musicians are represented by the Associated Actors and Artistes of America (AFL–CIO), or the "Four A's" as it is commonly called. This union has eight branches, which have some similarities in structure but also important differences. Total membership of the Four A's branches is approximately 65,000, although this is an overstatement because of considerable overlap among the branches. It is quite common for a performer to hold membership in several branches. For example, an opera singer needs a membership in the American Guild of Musical Artists (AGMA) for his performances with an opera company, in the American Federation of Television and Radio Artists (AFTRA) for live performances on television, in the Screen Actors Guild (SAG) for film performances on television, and in the Actors' Equity Association for performances in a theatrical production. No accurate data are available on the overlapping memberships of the branches, and estimates of the total number of persons in the Four A's range from 25,000 to 50,000.[2]

For all practical purposes, the Four A's is a facade. It has a one-room office and its staff consists of only a part-time secretary. The unpaid officers work on a part-time basis. The constitution of the union requires its branches to request permission from the Four A's to strike, but in practice this provision is a mere formality. The Four A's rarely has exerted significant influence over the actions of the branches, which are almost completely autonomous. Managers of performing arts organizations conduct all bargaining and day-to-day relations with representatives of the branches, not with the Four A's.

No branch of the Four A's pays salaries to its officers, who almost always work full time as performers and can spare little time for the affairs of the union. Each branch has a full-time, paid executive secretary and staff. Equity and AGMA have elected councils or boards that meet weekly or every second week to make policy decisions. Similar boards of AFTRA and SAG meet once a year, but local boards of these unions meet more frequently.

This type of structure is found in few unions outside of the performing arts. One potential advantage of frequent meetings of the elected representatives is that the paid staff, hence the union, is likely to represent the wishes of the membership more faithfully. The frequency of board meetings, however, may have an inhibiting effect on the salaried staff members. The actions of staff members are occasionally overruled, and there is a danger that staff members will not exercise strong leadership if they permit the governing board to make decisions that should be within the purview of the staff. In addition, the staff must spend an enormous amount of time preparing for the board meetings, a loss that tends to limit their effectiveness in serving the members.

Equity, the Guild of Musical Artists, Screen Actors Guild, and Screen Extras Guild do not have local affiliates; only AFTRA and the American Guild of Variety Artists have locals. The other branches of the Four A's have regional offices, although most decisions made within the branches appear to be highly centralized. AFTRA is the only branch that holds annual conventions; the other branches have annual meetings open to the entire membership.

The American Federation of Musicians, the only performer union not in the Four A's, has jurisdiction over musicians and related professionals, including all symphony and opera instrumentalists. The 7,500 symphony orchestra musicians constitute but a small fraction of the union's total membership.[3] The structure of the union contrasts markedly with that of the Four A's branches. AFM locals are highly autonomous and the international office exerts little influence over their actions.

Several other organizations in the performing arts are neither performer nor supportive unions. For instance, the Association of Theatrical Press Agents and Managers (ATPAM) and the Society of Stage Directors and Choreographers (SSD&C) enroll persons who usually are not unionized. Managerial employees are not protected by Federal labor legislation, and it is questionable whether directors and choreographers can be classified as "employees" under the National Labor Relations Act.

The Writers Guild of America has evolved from a professional association to a union that bargains for staff writers in television and movies. On the

other hand, the Dramatists Guild negotiated six collective bargaining agreements for theatrical dramatists from 1926 to 1955, but now refuses to negotiate any changes in its minimum basic agreement with the League of New York Theatres. The Directors Guild bargains for directors and assistant directors in television and movies but calls itself a "collective bargaining organization" instead of a union.

The United Scenic Artists, an affiliate of the paperhangers' union, represents scenic, costume, and lighting designers, who frequently are considered "independent contractors" instead of employees. Scenic artists operate out of their own shops rather than in the theatre, making models for sets or drawing designs for costumes. Often they work on two or three productions simultaneously. As a result, there is some question as to whether they are "employees" and thus subject to protection of Federal labor legislation. If they are not employees within the meaning of the NLRA, the United Scenic Artists do not qualify as a union. No one has yet challenged its status, and currently it is operating as if it were a bona fide labor union.

One distinct characteristic can be identified when studying unions of performers: their members exert more influence over collective bargaining than is the case in most other unions. First, there appears to be a higher incidence of membership participation in negotiations as committee members and observers. Second, negotiating committees, especially among musicians and actors, find increasing difficulty in obtaining membership approval of collective bargaining agreements.

There are different schools of thought on whether this situation is desirable. Federal labor legislation, particularly the Landrum-Griffin Act, embodies the public policy of encouraging members to participate in the affairs of their unions and requiring union leaders to be more responsive to the wishes of their members. This premise, some argue, justifies increased participation in negotiations and the higher incidence of contract rejections by union members. The opponents of this view contend that, although a certain amount of membership participation is desirable, there must be strong leadership in the union if collective bargaining is to work effectively. Attendance of union members at negotiating sessions is not in itself harmful, but leadership at the bargaining table should be provided by the professional union leader. The increased incidence of refusal by union members to ratify contracts negotiated by their leaders is particularly harmful to collective bargaining because the negotiators are hampered in finalizing an agreement and negotiations are prolonged.

Regardless of whether this trend is desirable, several reasons can be identified for its development in performer unions. First, the increased participation seems to be inherent in the very structure of the unions. The lack of full-time officers in the Four A's branches and the fact that symphony musicians represent a small minority of members in their union locals may cause members to desire a greater say in collective bargaining. Second, this propensity results from the performers' professional status. Professional employees generally want to influence the decisions affecting them, and this may be reflected in collective bargaining on their salaries and working conditions. Third, the increased participation in collective bargaining by members of performer unions could be part of an overall movement to greater participation in all unions.

Most of the unions and other employee organizations examined in this article engage in some activities characteristic of professional associations. For example, Equity has its own theatre where actors can work on plays and receive assistance from other, experienced actors and directors. The Society of Stage Directors and Choreographers has weekly meetings to discuss improvements and changes in the technical aspects of directing and choreography. The American Federation of Musicians sponsors an annual "Congress of Strings" in an attempt to increase the number of string players and improve their training. Most of the efforts of the "talent" unions, however, are devoted to protecting the interests of their members.

Supportive unions

Six international unions with local affiliates have jurisdiction over supportive employees in the performing arts. Almost all the 60,000 members of the International Alliance of Theatrical Stage Employees (IATSE) work in the performing arts. The International Brotherhood of Teamsters and the Service Employees International Union each have two local affiliates with members who work almost exclusively in the performing arts.

The Operating Engineers, Retail Clerks, and Electrical Workers enroll a small number of members who work mainly in the live performing arts, in relatively large locals with heterogeneous membership. In addition, the International Brotherhood of Electrical Workers and the National Association of Broadcast Employees and Technicians have a total of approximately 18,000 members who work mainly in radio and television.[4]

Most of the supportive unions represent employees who work in a single type of job, so that there is a multitude of unions in supportive activities. A large majority of them were active years before the National Labor Relations Act was passed in 1935. There is a long history of rigid jurisdictional lines among unions in major cities, and in most cases these lines have been accepted by employees and employers in the performing arts. The following partial list of local unions in New York City, divided by job categories, gives some indication of the fragmentation of supportive unions in the live performing arts:

Local 54, Cleaners and Porters, SEIU
Local 1, Stagehands, IATSE
Local 751, Treasurers and Ticket Sellers, IATSE
Local 764, Wardrobe Attendants, IATSE
Local 798, Make-up Artists and Hair Stylists, IATSE
Local 1111, Amusement Clerks, Retail Clerks International
Local 817, Theatre-Radio Field Equipment Stagemovers, Teamsters

The structure of supportive unions in the live performing arts is similar to that of most unions in other industries with paid officers and local affiliates. The International Alliance of Theatrical Stage Employees is the largest of the supportive unions and represents members in all the performing arts. It has approximately 1,000 locals throughout the United States, including 16 in New York City and 23 in Los Angeles. The union represents all supportive employees on Hollywood movie sets and has separate locals for each category including even nurses and teachers of child performers. The international office of the IATSE appears to exert more control over the actions of its locals than does any other union in the performing arts. For example, the provision in its constitution that no local may call a strike without receiving permission from the international office is vigorously enforced. The international office has placed several locals in trusteeship and has observers attending meetings of a few of its other locals.

One thing should be noted in conclusion: Unions in the performing arts represent a very small portion of the country's labor force, but they are constantly in the public eye. They operate in a highly visible sector of our economy, a fact that frequently results in widespread publicity of their actions. □

FOOTNOTES

[1] The influence of the casual labor market on unionization in the performing arts was discussed by James W. Kuhn in "Structural Determinants of White-Collar Organizing," 1965 (unpublished).

[2] David L. Cole, "Is Merger Practicable?," a report on a study conducted for the Screen Actors Guild and the American Federation of Television and Radio Artists, published January 4, 1960.

[3] Leon E. Lunden, *Major Symphony Orchestra Labor Relations* (unpublished doctoral dissertation, University of Wisconsin, 1967), p. 127.

[4] "Television unions: a tide of rising expectations swell up from the ranks," *Television Magazine*, October 1967, pp. 30–31.

Impact of higher unemployment on major labor force groups

A 1-percentage-point rise in unemployment would have greatest effect on jobless rates of men and blue-collar workers

PAUL M. RYSCAVAGE

How MUCH would the jobless rates of major groups of workers change if the national unemployment rate rises by a specified amount? This question has particular interest today in view of the possible effect of recent anti-inflationary policies on unemployment. Drawing upon the experience of the past, this article attempts to make rough approximations of the differing impact of an increase in the national unemployment rate upon rates and levels of unemployment of major age-sex-color and occupational groups.

When the total unemployment rate changes, the amount of change that occurs in the jobless rates for particular groups of workers differs for a number of reasons. Differences in workers' skill levels, labor force attachment, and the degree of labor force growth and demand for labor, among others, contribute to the responsiveness of the jobless rates for particular groups of workers to changes in the total unemployment rate. By analyzing past trends in the rates for selected labor force groups and the total rate of unemployment, it is possible to establish the average relationships between them; moreover, such an analysis makes it possible to estimate what rates of unemployment selected labor force groups will experience if the total rate of unemployment rises.

For this article, simple regression analysis was used to quantify the relationships between unemployment rates for major labor force groups and that for all workers, although it is acknowledged that this technique has limitations. For example, such an analysis excludes all other independent variables (other than the total rate) which may have relevance to the relationship. Nevertheless, this technique, which has been employed before,[1] has the benefit of simplifying the relationships so that what is being analyzed is shown in a clear, concise form.

Obviously, the impact of higher unemployment would depend upon which sectors of the economy are affected most by an economic slowdown, and to what extent. Such factors could significantly alter the kinds of workers who become unemployed. Judging from past experiences, however, it is likely that the goods-producing industries would bear the brunt of any economic slowdown. These industries, which employ proportionally large numbers of men and blue-collar workers, accounted for much of the joblessness in past recessions. Service-producing industries—which provide the chief source of employment opportunities for women and teenagers—could be affected later as the readjustment continued.

Major age-sex-color groups

To estimate average relationships, unemployment rates for each major age-sex-color group[2] were regressed against the overall rate of unemployment. Regressions were developed using monthly seasonally adjusted unemployment rates for a 10-year period (1959–68) which provided a broad range of jobless rates for both the component groups and the Nation as a whole.

As seen in the following tabulation, the average relationships suggest that when the total rate changes by 1.0 percentage point, the teenage jobless rate would change, on average, by 1.4 percentage points, the men's rate by 1.2, and the women's rate by 0.8. On this basis, the teenage rate may be considered more responsive to changes in the total unemployment rate than rates for adult workers:

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	Average change in unemployment rates (percentage points)
Total rate	1.0
Men, 20 years and over	1.2
Women, 20 years and over	0.8
Teenagers, 16 to 19 years	1.4
White	0.9
Men, 20 years and over	1.0
Women, 20 years and over	0.7
Teenagers, 16 to 19 years	1.5
Negroes	1.8
Men, 20 years and over	2.6
Women, 20 years and over	1.3
Teenagers, 16 to 19 years	0.8

Comparison of the average relationships for whites and Negroes indicates that the jobless rate for Negroes is more responsive to changes in the total rate than that for white workers. For white workers, the relationships are similar to those for the total, due to the whites' numerically heavy weight in the total jobless rates for all men, women, and teenagers. For Negroes, on the other hand, the computed relationships between their rates and the overall rate were quite different from those for whites. For a 1-percentage-point change in the total rate, the Negro rate would change by 1.8 percentage points and the white by 0.9 percentage point. The rate for Negro men would change the most (2.6 percentage points) followed by the rate for women (1.3) and teenagers (0.8). The indicated low responsiveness of the Negro teenage rate is suspect, however, due to the relatively low correlation between their rate and the total unemployment rate. High jobless rates for Negro teenagers have remained relatively stable in recent years despite declines in the total rate. The relationships for all the age-sex-color groups are presented in chart 1.

The previous section has discussed the differential impact of higher unemployment on major groups' rates in terms of percentage point changes. However, percentage point changes do not indicate the relative impact of changes in jobless rates,

Chart 1. Average relationships between unemployment rates for major age-sex-color groups and the total unemployment rate

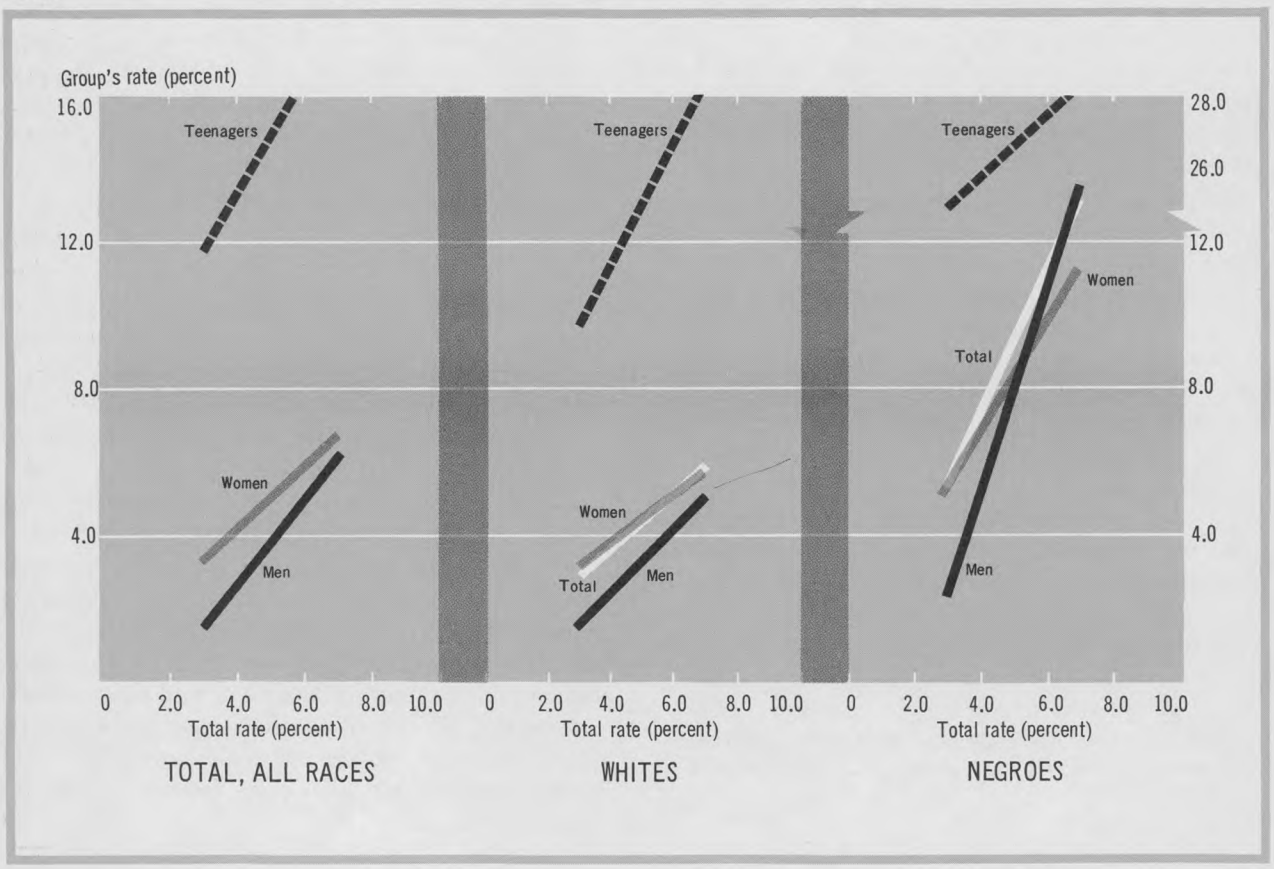

Table 1. Average relationships between unemployment rates for major age-sex-color groups and a total unemployment rate of 3.7 and 4.7 percent

Age-sex-color groups	Total unemployment rate		Percent change in rates
	3.7 percent	4.7 percent	
All workers, 16 years and over	3.7	4.7	27.0
Men, 20 years and over	2.3	3.5	52.2
Women, 20 years and over	3.9	4.6	17.9
Teenagers, 16 to 19 years	12.9	14.3	10.9
Whites	3.3	4.2	27.3
Men, 20 years and over	2.1	3.1	47.6
Women, 20 years and over	3.4	4.2	23.5
Teenagers, 16 to 19 years	10.9	12.4	13.8
Negroes	7.1	8.9	25.4
Men, 20 years and over	4.4	7.0	59.1
Women, 20 years and over	6.6	7.9	19.7
Teenagers, 16 to 19 years	25.5	26.2	2.7

since unemployment rates for the major age-sex-color groups range widely in magnitude—from 2.0 percent for white men to 25.0 percent for Negro teenagers in 1968. To illustrate: if two different jobless rates change by 1.5 percentage points when the total rate changes by 1.0 percentage point, the lower of the two unemployment rates would have a greater relative or percent change than the higher rate.

Using a total unemployment rate of 3.7 percent, which approximates fall 1969 levels, it is possible to develop jobless rates for major age-sex-color groups based on the average relationships. Similarly, rates for these groups can also be developed when the total unemployment rate is 4.7 percent. Assuming that the rise in the total jobless rate occurs in about a year's time, it is possible to estimate the impact, in percent terms, on the age-sex-color groups. Thus, if the total rate were to rise from 3.7 to 4.7 percent, a 27-percent increase, jobless rates for men, on average, would rise by 52 percent, for women by 18 percent, and for teenagers by 11 percent. (See table 1.) Rates for white and Negro workers would rise proportionally, about the same as the total rate. It is not to be implied by this that unemployment rates are projected to rise in the months ahead; this exercise simply demonstrates the relative impact of such a hypothetical change.

In previous years when the total rate of unemployment rose rapidly, the impact (in percent terms) on the major age-sex-color groups appears to be similar to that predicted on the basis of the average relationships. (See table 2.) During the recession periods of 1953–54, 1957–58 (not included in the regressions) and 1960–61, for example, adult workers, particularly men, experienced the greatest increase in jobless rates. In percentage terms, the rate for teenagers rose the least while those for both whites and Negroes increased by the same percent.

Another dimension of the effect of a 1.0-percentage-point rise in the total unemployment rate is the impact on the unemployment levels for these groups of workers. Estimates of the impact on unemployment levels were made under the same assumption—that the total unemployment rate would rise from 3.7 to 4.7 percent in about a year's time.

Before estimating the levels of unemployment that would be associated with these jobless rates for these groups, however, it is necessary to estimate the size of the labor force for each component group at a 4.7-percent total unemployment rate.[3] As has been shown in several Bureau reports and other studies, the growth of the civilian labor force is affected, to a certain extent, by changes in the overall unemployment rate.[4] On the basis of long-range trends, normal labor force growth is estimated to be about 1.5 million, given the present size and composition of the population. If the rate of unemployment were to rise from 3.7 to 4.7 percent in a year, it is estimated that the civilian labor force would grow by only about 1 million workers. Consequently, estimates of labor force growth for each group of workers reflect this higher rate of unemployment. The size of the Armed Forces was assumed to be unchanged over the period.

Fewer women and teenagers would enter the labor force if the rate rose to 4.7 percent, thus accounting for most of the slackening in labor force growth. The number of women in the labor force might increase by about 300,000, half as much as normally expected, and the teenage labor force might show little or no growth, although it would normally have been expected to grow by 100,000. Labor force growth for men would in all likelihood be unaffected. Labor force changes among age-sex groups of whites and Negroes were assumed to be consistent with the existing composition of the labor force.

Table 2. Percent changes in unemployment rates for major age-sex-color groups during periods when the total unemployment rate rose rapidly

Age-sex-color group	1953–54	1957–58	1960–61
All workers	93.1	58.1	21.8
Adult men, 20 years and over	96.0	72.2	21.3
Adult women, 20 years and over	89.7	48.8	23.5
Teenagers, 16 to 19 years	65.8	37.1	14.3
Whites	----	60.5	20.0
Negroes	----	59.5	21.6

Table 3. Labor force status of major age-sex-color groups at a total unemployment rate of 3.7 and 4.7 percent

[Labor force and unemployed persons in millions]

Age-sex-color groups	Total unemployment rate of 3.7 percent			Total unemployment rate of 4.7 percent		
	Civilian labor force	Unemployed persons	Unemployment rate	Civilian labor force	Unemployed persons	Unemployment rate
All workers, 16 years and over	81.1	3.0	3.7	82.1	3.9	4.7
Men, 20 years and over	46.5	1.0	2.3	47.1	1.6	3.5
Women, 20 years and over	27.6	1.1	3.9	28.0	1.3	4.6
Teenagers, 16 to 19 years	7.0	.9	12.9	7.0	1.0	14.3
Whites	71.9	2.4	3.3	72.8	3.1	4.2
Men, 20 years and over	41.9	.9	2.1	42.5	1.3	3.1
Women, 20 years and over	23.9	.8	3.4	24.2	1.0	4.2
Teenagers, 16 to 19 years	6.1	.7	10.9	6.1	.8	12.4
Negroes	9.0	.6	7.1	9.1	.8	8.9
Men, 20 years and over	4.6	.2	4.4	4.6	.3	7.0
Women, 20 years and over	3.6	.2	6.6	3.6	.3	7.9
Teenagers, 16 to 19 years	.8	.2	25.5	.8	.2	26.2

Note: Totals may not add due to independent seasonal adjustment and rounding.

Applying the estimated unemployment rates for each age-sex-color group to their estimated labor forces a year later, provides some indication of the impact of higher unemployment on these groups of workers. Thus, if the total rate of unemployment rose to 4.7 percent from 3.7 percent a year earlier, total unemployment would reach a level of 3.9 million, an increase of about 900,000 unemployed workers. As seen in table 3, men would account for two-thirds (or 600,000) of this rise. Unemployment for women would increase by 200,000, and for teenagers, 100,000. Among both whites and Negroes, most of the burden of higher unemployment would fall upon men.

Occupational groups

The impact of higher unemployment on occupational groups can also be estimated. Average relationships were calculated by regressing the monthly seasonally adjusted jobless rates for each individual occupational group against the total rate for the period 1959 to 1968. These relationships are presented in the following tabulation:

	Average change in unemployment rates (percentage points)
Total	1.0
White-collar workers	0.4
Professional and technical	0.3
Managers, officials, and proprietors	0.3
Clerical	0.5
Sales	0.6
Blue-collar workers	1.7
Craftsmen and foremen	1.3
Operatives	1.7
Nonfarm laborers	2.6
Service workers	0.9
Farm workers	0.2

As the tabulation shows, the unemployment rate for all blue-collar workers is more responsive to changes in the national unemployment rate than are the rates for white-collar or service workers.

In percent terms, the differential impact of increased unemployment upon these occupational groups would be as follows: The jobless rate for all blue-collar workers would rise, on average, by 41 percent; skilled workers would experience the greatest change of all workers (52 percent); and rates for white-collar and service workers would rise by similar amounts (20 percent). (See table 4.)

Estimates can also be made to show how an increase in the Nation's unemployment rate would affect occupational unemployment levels. These estimates were made under the same assumption that the total rate of unemployment would rise from 3.7 percent to 4.7 percent in a year's time. Jobless rates for the occupational groups, when the total rate is 4.7 percent, were estimated from the relationships discussed earlier. To develop an estimated labor force for each occupational group the current occupational distribution [5] was applied to the estimated civilian labor force 1 year later—82.1 million. Applying the jobless rates for these occupational groups to their respective labor force levels results in estimated occupational unemployment levels, at a 4.7-percent unemployment rate. (See table 5.)

If an increase in the total rate of unemployment occurs, unemployment levels for blue-collar workers would rise numerically more than those for other occupational groups. Approximately 600,000 of the 900,000 increase in total unemployment would occur among blue-collar workers, with craftsmen and operatives accounting for most of

Table 4. Average relationships between unemployment rates for major occupational groups and total unemployment rate when the total rate is 3.7 and 4.7 percent

Occupational groups	Total unemployment rate		Percent change
	3.7 percent	4.7 percent	
All workers, 16 years and over	3.7	4.7	27.0
White-collar workers	2.0	2.4	20.0
Professional and technical	1.3	1.5	15.4
Managers, officials, proprietors	0.9	1.2	33.3
Clerical	2.9	3.5	20.7
Sales	2.9	3.5	20.7
Blue-collar workers	4.2	5.9	40.5
Craftsmen and foremen	2.5	3.8	52.0
Operatives	4.4	6.1	38.6
Nonfarm laborers	7.3	9.9	35.6
Service workers	4.5	5.4	20.0
Farm workers	2.3	2.5	8.7

Table 5. Labor force status of major occupation groups at a total unemployment rate of 3.7 and 4.7 percent

[Labor force and unemployed persons in millions]

Occupational groups	Total unemployment rate of 3.7 percent			Total unemployment rate of 4.7 percent		
	Civilian labor force	Unemployed persons	Unemployment rate	Civilian labor force	Unemployed persons	Unemployment rate
All workers, 16 years and over	81.1	3.0	3.7	82.1	3.9	4.7
White-collar workers	37.8	.8	2.0	38.2	.9	2.4
Professional and technical	10.9	.1	1.3	11.1	.2	1.5
Managers, officials, and proprietors	8.1	.1	0.9	8.2	.1	1.2
Clerical	13.9	.4	2.9	14.1	.5	3.5
Sales	4.9	.1	2.9	4.9	.2	3.5
Blue-collar workers	29.6	1.2	4.2	30.0	1.8	5.9
Craftsmen and foremen	10.4	.3	2.5	10.5	.4	3.8
Operatives	15.3	.7	4.4	15.5	.9	6.1
Nonfarm laborers	4.0	.3	7.3	4.0	.4	9.9
Service workers	9.9	.4	4.5	10.0	.5	5.4
Farm workers	3.3	.1	2.3	3.4	.1	2.5
Inexperienced workers	.4	.4	-------	.5	.5	-------

Note: Totals may not add due to independent seasonal adjustment and rounding.

the rise. White-collar and service workers would each experience a 100,000 rise in the number of unemployed, as would workers with no previous work experience. □

FOOTNOTES

[1] See Joe W. McLeary, "Unemployment: Who It Hits," *The Monthly Review*, Federal Reserve Bank of Atlanta, September 1969, pp. 114–117.

[2] The major age-sex-color groups consist of men 20 years and over; women 20 years and over; teenagers 16 to 19 years of age; white men, women, and teenagers; and Negro men, women, and teenagers.

[3] The labor force and unemployment levels for the component groups, when the total unemployment rate is 3.7 percent, approximate those of the third-quarter, 1969 (seasonally adjusted).

[4] See Sophia Cooper and Denis F. Johnston, "Labor Force Projections for 1970–80," *Monthly Labor Review*, February 1965, pp. 129–140.

[5] The labor force and unemployment levels for the occupational groups, when the total unemployment rate is 3.7 percent, approximate those of the third quarter,1969 (seasonally adjusted).

Technical note

Regressing joblessness rates for selected labor force groups against the total rate of unemployment provides the basic regression equation of any simple regression analysis:

$$y = a + bx$$

The dependent variable y represents each group's jobless rate and x, the independent variable, the total rate of unemployment. The regression coefficient, b, represents the average amount of change that will occur in the individual group's jobless rate when the total rate of unemployment changes by 1.0 percentage point. The total equation expresses the average relationship between a [specific] group's jobless rate and the total unemployment rate at various levels.

Regression equations were developed for all major age-sex-color groups and occupational groups and are presented in the table below. All of the equations are based on seasonally adjusted, monthly unemployment rates for the period 1959 to 1968. The coefficient of determination (R^2) measures how strong the average relationship is between individual jobless rates and the total unemployment rate and the amount of variation in individual rates which can be associated with variation in the total rate. The standard error of estimates (S) measures how much, on average, the actual jobless rates deviate from those calculated from the regression equation.

Age-sex-color groups	*Regression results*		
	Regression equation	R^2	S
Adult men (20 years and over)	$Y = -2.020 + 1.171x$	0.96	0.23
Adult women (20 years and over)	$Y = .949 + .787x$	.92	.23
Teenagers (age 16 to 19 years)	$Y = 7.758 + 1.401x$	.63	1.07
Whites	$Y = .017 + .884x$	.99	.11
Adult men (20 years and over)	$Y = -1.625 + 1.008x$	.95	.11
Adult women (20 years and over)	$Y = .814 + .701x$	.93	.20
Teenagers (16 to 19 years)	$Y = 5.517 + 1.466x$	.67	1.04
Negroes	$Y = .261 + 1.839x$	.93	.50
Adult men (20 years and over)	$Y = -5.238 + 2.607x$	.90	.89
Adult women (20 years and over)	$Y = 1.878 + 1.279x$	.74	.76
Teenagers (16 to 19 years)	$Y = 22.555 + .784x$	.07	2.87
Occupation groups			
White-collar workers	$Y = .537 + .400x$	.90	.14
Professional and technical	$Y = .333 + .257x$	.72	.16
Managers, officials, proprietors	$Y = -.034 + .264x$	.70	.17
Clerical	$Y = .924 + .538x$	.82	.25
Sales	$Y = .651 + .608x$	.68	.42
Blue-collar workers	$Y = -2.211 + 1.721x$	.96	.33
Craftsmen and foremen	$Y = -2.299 + 1.305x$	.93	.37
Operatives	$Y = -1.837 + 1.697x$	.95	.41
Nonfarm laborers	$Y = -2.368 + 2.613x$	.92	.78
Service workers	$Y = 1.225 + .886x$	.87	.34
Farm workers	$Y = 1.416 + .230x$	.23	.42

Unemployment rates for most labor force groups were highly correlated with the total unemployment rate. However, for Negro teenagers and farm workers, the low R^2 indicates that relationships were relatively weak. Estimates of changes in unemployment rates for these groups of workers, therefore, should be viewed with caution. For all groups, the standard error of the estimate should be considered in interpreting the estimated unemployment rates.

Determining the labor force status of men missed in the census

Special Labor Force Report describes pilot use of a new technique for securing labor force data in urban poverty areas

DEBORAH P. KLEIN

RECENT attempts have been made to obtain heretofore unavailable social and economic data about men missed in the census—especially men from minority groups between 20 and 50 years of age who are estimated to have high rates of undercount. The studies, which were conducted in New Haven, Conn., Central Harlem in New York, N.Y., and Trenton, N.J., used a "casual interview" technique. This approach consisted of interviews in bars, poolrooms, restaurants, on street corners, park benches, and similar locations. This article discusses the results of the new approach, which is one way to obtain more extensive social and economic data for those parts of the population that have been difficult to fully enumerate in censuses.

Background: the undercount

It is estimated that about 3 percent of the population was missed in the 1960 census. All the studies undertaken to estimate the number of persons missed indicate that the undercount rate (percent of persons missed) varies significantly by race, age, and sex. The 1960 census enumerated 98 percent of white persons but only 90 percent of persons of other races,[1] according to Census Bureau estimates.[2] The total number of unenumerated persons has been estimated to be 5.7 million, of whom 38 percent were members of races other than white. Thus, while the number of uncounted white persons is greater than the number of uncounted persons of other races, the proportion of white persons missed is considerably smaller than the proportion of persons of other races.

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Completeness of coverage varies by age and sex, as well as by race and ethnic group. Coverage is proportionately better for children than adults, and better for females than for males. A relatively large number of persons over 65 years of age were missed. The highest rates of undercount were found among men 20–34 years old and 50–54 years. Women's undercount rates are lower than men's at every age below 50, and it is possible that age misstatement accounts for part of the undercount for women at the older ages.

The census data provide benchmarks for preparing monthly population estimates between censuses. These estimates are used to weight the data from the Current Population Survey (CPS) which provide monthly statistics on economic characteristics of the population. Thus, any undercount in the decennial census is transmitted to the intercensal statistics and may affect the reliability of the published labor force data.

The Bureau of Labor Statistics tried to quantify the possible effect of the undercount on national unemployment rates. Two different assumptions about the labor force status of uncounted persons were used to analyze population data that had been adjusted for the estimated undercount.[3] Under the "comparability" assumption, missed persons were assigned the same labor force status as counted persons in the same age-sex-color group. Under the "poverty-neighborhood" assumption, missed individuals were assigned the characteristics of persons living in urban poverty areas and in the same age-sex-color cell.

Regardless of which assumption was used, the resulting estimates of labor force size and employment were substantially larger when account was taken of the missed persons. Distributions by age, sex, and color changed only slightly, but the levels were higher than those indicated by the published

figures. The national unemployment rate was not appreciably different from the published one under either assumption. It would have required a very high undercount rate, coupled with a grossly higher unemployment rate among the uncounted persons, for the national published unemployment rate to have been significantly in error (table 1).

In some local areas, the undercount may constitute a greater proportion of the population than it does in the Nation as a whole. In these areas, including the estimated undercount might make a significant difference in labor force data as well as population data. It has been suggested that undercount rates are highest in crowded urban poverty areas and sparsely populated rural areas. Particular concern has been expressed about the quality of the population and labor force estimates for the Nation's largest cities. At the city level we do not know what percentage of the population is missed and what the characteristics of these missed people are. The demographic analysis which is used to obtain national estimates has not been done on a local level, primarily because adequate birth, death, and migration rates are available only on a national basis.

Bureau research on missed persons

The issue of severe unemployment in urban poverty areas highlighted the fact that failure to obtain information about all residents could significantly affect the labor force data for these areas. Consequently, the Bureau of Labor Statistics designed a pilot research program to improve statistics for urban poverty areas. This program, which included among its aims the gathering of more information about persons not counted in household surveys in these areas, was conducted in the spring of 1967. The undercount portion of the program, which complemented the previous work of the Census Bureau in this area, was concerned with identifying the labor force characteristics of men not enumerated in household surveys, such as the decennial census or the CPS.

The basic procedures of the BLS undercount study were to obtain a set of names and addresses through some source other than a household survey; to determine whether the individual would be reported in a household survey; and then to compare the characteristics of those individuals reported by the household to the characteristics of those who were not reported. One source used to obtain the names and addresses was "casual interviews," that is, interviews conducted in casual settings such as bars, poolrooms, and on street corners. A second source was lists obtained from establishments, such as restaurants, laundries, and hospitals, which often hire large numbers of low-paid workers. Another aspect of the BLS research project was to compare the effects of conducting an undercount study in conjunction with a complete census count, and conducting such a study without a complete population count.

The pilot program was conducted in two areas—the Negro poverty areas of New Haven, Conn., and the Central Harlem area of New York, N.Y. New Haven was selected because it was the site of a pretest of the 1970 decennial census. The BLS research project was timed to follow shortly after this pretest. In New York (which had had no recent census), two sources—employers' lists and casual interviews—were used to obtain names and addresses. The target populations in both areas were Negro men between the ages of 20 and 50 years, because the estimated rates of undercount were highest for this group.[4]

In New Haven, where casual interviews were the only source of names and addresses, the Census Bureau was able to check the names and addresses obtained from the casual interviews against the listing obtained in the census pretest. Followup interviews were conducted at households where the names and addresses obtained in the casual interviews could not be matched with records of that census pretest. These interviews inquired about the whereabouts of the individual in question. In New York, the procedure called for a household interview at every address obtained from either

Table 1. Effect on the unemployment rate of including omitted persons under selected assumptions, by color and sex, 1967

Color and sex	Unemployment rate				
	Official estimate	Comparability assumption		Poverty neighborhood assumption	
		Omitted persons	Adjusted rates	Omitted persons	Adjusted rates
White:					
Both sexes	3.4	3.4	3.4	5.1	3.4
Male	2.7	3.1	2.8	4.9	2.8
Female	4.6	3.7	4.6	5.7	4.6
Negro and other races:					
Both sexes	7.4	6.0	7.2	6.9	7.3
Male	6.0	4.9	5.9	6.5	6.2
Female	9.1	7.4	9.0	8.1	9.0

Source: **Monthly Labor Review**, March 1969, tables on pages 10, 11, and 12.

the casual interview or the establishment lists. The household interview was used to determine whether the person would be listed in a household interview such as the CPS, and to ascertain whether those persons not listed as household members were part of the undercount. This method revealed itself to be considerably less effective than the method of conducting such a study in conjunction with a census count.

The New Haven study identified 39 cases of persons missed in the census pretest. Obviously, the number of cases was too small to permit inferences about the characteristics of all uncounted Negro men in urban poverty areas. The results, however, were significant in providing some insight, albeit inconclusive, into the social and economic characteristics of the undercount, and into a method which would increase identification of the uncounted persons. (Even fewer cases were found in New York.[5])

The primary finding of the study was that the labor force status of the undercount group was very much like the labor force status of their neighbors who were counted. (See table 2.) Two significant differences between the enumerated group and the undercount group support the hypothesis that men are missed in census counts because they do not have family responsibilities and, as a result, frequently shift their places of residence. The differences were: (1) the undercounted group tended to have more casual attachments to their places of residence; that is, the proportion of those who had lived at their last place of residence 1 year or less was nearly 4 times higher for the undercount group than for the enumerated group, and (2) a large proportion of the undercount group had never been married. In addition, the New Haven study suggested that economic and social characteristics of undercounted Negro men in urban poverty areas could be identified through the technique of obtaining names and addresses through casual interviews following a complete census of the area.

Trenton undercount study

A recent study in Trenton, N.J., employed the casual interview technique used in the BLS New Haven Undercount Project already described. The study was undertaken by the Trenton Model Cities Agency to gain additional information about the situation of persons in poverty areas.

The primary finding of the Trenton study substantiated the tentative conclusions of the New Haven study—the labor force status of men who are not counted in a census is similar to that of men who are counted. (See table 3.)

The Trenton Model Cities Agency used a slightly revised version of the questionnaire designed by BLS for use in the New Haven study. The schedule covered the areas of educational and marital status, age, place of birth, residential history, labor force status, occupation, earnings, and hours worked.

Unlike the New Haven study, in the Trenton study there was no followup probe at addresses which were unmatched in the census record. In New Haven, there had been a complete census count, a series of casual interviews, a matching of names, and *then* a followup household interview. The address of each person who had not been enumerated in the census pretest was visited and the respondent was asked about the individual in question. If the respondent acknowledged that the individual did live at the address, then that person was considered to be part of the undercount. The Trenton study omitted this followup household interview. The Census Bureau classified all persons whose names could not be matched with enumeration lists and whose addresses were within the enumeration district as persons missed in the census pretest.

The Trenton survey was about twice as large as the one in New Haven. Over 900 names and

Table 2. Comparison of selected characteristics of casual interview respondents in New Haven

[Percent distribution]

Characteristics	Total persons in casual study	Persons matched in census records (men counted in the census)	Persons not matched in census records	
			Men found in field followup (undercount)	Men not found in field followup
Marital status:				
Married	48	57	33	40
Separated	16	9	18	23
Widowed or divorced	5	6	0	4
Never married	30	25	46	32
Information not available	2	2	3	1
Years at residence:				
1 year or less	21	12	46	27
More than 1 year	70	75	51	68
Information not available	9	12	3	5
Labor force status:				
Employed	78	78	77	77
Unemployed	11	11	13	12
Unemployment rate	13	12	14	13
Not in labor force	8	8	8	7
Information not available	3	3	3	3
Number of responses	507	249	39	219

Source: BLS Report 354, pp. 25–26.

addresses were obtained from casual interviews in Trenton. These names were divided into three groups. The first group consisted of 283 names that were matched with the census lists; that is, men who were enumerated in the census. The second group consisted of 290 names that could not be matched with census lists but whose addresses were within the city limits. This group was considered to be part of the undercount. The third group (350 names) contained persons whose enumeration status was unclear; they may or may not have been enumerated. Included in this group were schedules that could not be matched because of problems in address classifications and schedules which arrived past the deadline for Census Bureau checking. There were about 150 additional schedules that could not be classified because their addresses were outside Trenton city limits. Duplicate schedules (which typically occurred when more than one enumerator interviewed the same individual) were also excluded from the tabulations.

When the characteristics of the persons interviewed in a casual setting and counted in the census were compared with the characteristics of the persons interviewed in the same area and not counted in the census, the general finding was that the two groups were very similar in regard to labor force status. The unemployment rate for the missed individuals was almost identical to that of their counted neighbors. Furthermore, the unemployment rate for the men whose enumeration status was not known (the men for whom no census match could be made) was about the same as the others. The rate of nonparticipation in the labor force was somewhat larger for the undercount group than for the enumerated. However, the rate was less than 10 percent for both groups.

Table 3. Comparisons of labor force status of casual interview respondents in Trenton

[Percent distribution]

Labor force status	Total men in study	Men classified as enumerated in the census pretest	Men classified as part of the undercount	Men who could not be classified
Employed	83	86	79	85
Unemployed	9	9	9	10
Unemployment rate	10	10	10	10
Not in labor force	6	4	9	5
Information not available	1	1	2	(1)
Number of responses	923	283	290	350

[1] Less than 1 percent.

Table 4. Comparisons of selected characteristics of casual interview respondents in Trenton

[Percent distribution]

Characteristics	Total men in study	Men classified as enumerated in the census pretest	Men classified as part of the undercount	Men who could not be classified
Age:				
Less than 20 years	6	6	8	5
20–29	38	28	46	40
30–39	24	24	20	28
40–49	26	36	20	23
50 or more	5	6	5	3
Information not available	1	(1)	1	(1)
Marital status:				
Married	44	58	35	39
Separated, widowed or divorced	18	13	21	21
Never married	34	26	41	34
Information not available	4	3	3	6
Years at residence:				
Less than 1	13	9	14	15
1 or 2	22	20	25	21
3 or more	62	69	58	59
Information not available	3	2	4	4
Number of responses	923	283	290	350

[1] Less than 1 percent.

Another characteristic in which the unenumerated and the uncounted were similar was educational attainment. Among the men interviewed in the Trenton study, about 30 percent of each group had not attended high school and about 65 percent had not graduated from high school.

Despite the similarity of the two groups in terms of labor force status and educational attainment, there were some characteristics in which they differed. The uncounted group was somewhat younger, less likely to be married, and more mobile. (See table 4.) The differences in age distribution, of course, affected the other characteristics. Furthermore, the mobility aspects could reasonably be expected to affect enumeration. Young, unmarried men are more likely to shift their living arrangements, thus making it difficult to enumerate them.

The Trenton study added another dimension to the undercount question; it was possible to tabulate the results by race and ethnic group. The sample was approximately three-quarters Negro; another fifth were persons with Spanish surnames (primarily of Puerto Rican birth); the remainder were other Caucasians, some Orientals, and a few men of undetermined race. The Spanish surname group was younger, and less likely to have ever been married, than the Negro group. Most of the

men with Spanish surnames were born in Puerto Rico; the Negroes were evenly divided between those born in New Jersey and those born in a southern State. The persons with Spanish surnames were newer to the area than the Negroes.

In the Trenton study, the unemployment rate for Puerto Ricans was significantly higher than the rate for Negroes. The differential was maintained for each of the classification groups, although the extent of the differential varied. (See table 5.)

Characteristics of the undercount

Both the Trenton and New Haven studies were primarily methodological; that is, they were designed to test the feasibility of using the casual interview technique to collect data about persons ordinarily missed in a census of an urban poverty area. The data obtained from these surveys are not sufficient to describe the characteristics of all men living in urban poverty areas—counted or uncounted in a census—because the data were limited to two areas and we do not know whether the casual interview technique reaches a representative sample of the local population. However, some conclusions may be drawn about the relationships between the characteristics of counted and uncounted persons in urban poverty areas.

The significant social relationships deal with the ties of counted and uncounted men to a particular family and residence. In both New Haven and Trenton, the major difference between the group of men who would have been enumerated in a census and those who would not was in the strength of these ties. (See tables 2 and 4.) For example, in New Haven, only 33 percent of the undercount were married, compared with 57 percent of the enumerated. In Trenton, the percentages were 35 and 58, respectively. Length of time at current residence is another variable which may distinguish between the enumerated and the unenumerated. In New Haven, 46 percent of the undercount had lived at their current residence 1 year or less, compared with 12 percent of the enumerated; in Trenton the rates were 14 and 9 percent, respectively. While the differences were greater in New Haven, they were in the same direction as in the larger Trenton study. The general finding seems to be that a married man living with his wife at a stable address is more likely to be reached in a household survey than a single man who moves frequently.

The significant conclusion that can be drawn from these studies is that the labor force status of the uncounted is very similar to that of the counted in the same urban poverty area. (See tables 2 and 3.) In New Haven, the unemployment rate for the enumerated was quite close to that of the uncounted; in the larger Trenton study, the rates were virtually identical.

Equally important, from the standpoint of evaluating published unemployment statistics, is the implication that enumeration of all persons in an urban poverty area would not significantly change the unemployment rate for that area—and perhaps this is true for other areas as well. If this is true, it would provide greater credence to the estimates of labor force size and employment prepared by Johnston and Wetzel and discussed earlier. (See table 1 and discussion on page 26.) The findings of the studies in Trenton and New Haven provide evidence that could support either the comparability assumption or the poverty neighborhood assumption. If similar studies were conducted in nonpoverty areas, it might become apparent which assumption is more valid.

Table 5. Labor force status of casual interview respondents, by race or ethnic group, Trenton

[Percent distribution]

Labor force status	Negro men				Men with Spanish surnames			
	Total	Classified as enumerated in the census pretest	Classified as part of the undercount	Unclassified	Total	Classified as enumerated in the census pretest	Classified as part of the undercount	Unclassified
Employed	85	88	81	88	75	80	73	70
Unemployed	8	6	9	9	17	19	12	18
Unemployment rate	9	7	10	9	18	19	14	20
Not in labor force	5	5	8	3	9	1	16	10
Information not available	1	1	3	0	1	0	0	1
Number of responses	695	203	231	261	188	70	51	67

Characteristics of the method

An evaluation of these studies indicates that the technique of conducting casual interviews in conjunction with a complete census count merits serious consideration in any attempt to collect data on missed persons. This data collection technique produced, for the first time, information about the economic characteristics of men missed in a census.

There are several advantages to the casual interview technique. First, it can reach persons not usually contacted in household surveys. Whether the individual is missed because his entire household is not located, because he does not maintain a a stable relation with any one household, or because his household chooses not to acknowledge his presence, the casual technique offers a prospect of reaching him. Thus, this technique is suitable for identifying the characteristics of persons subject to various types of undercount. Second, it can be employed selectively; that is, it can be directed to a specific group by the designation of the interview locations and instructions to the interviewers. Furthermore, the questionnaire can be designed specifically for the selected group. For example, the choice of language and the approach of the enumerators can be tailored to fit the target population. Third, the use of the casual interview technique permits the enumerator to speak directly to the desired respondent during the initial contact. In household and other random surveys, on the other hand, the initial contact is often made with the wife, roominghouse owner, or other person. When a follow up with the desired respondent is not possible, the data that was obtained from the secondary respondent is less reliable than data from the desired respondent would have been. Fourth, the casual nature of the questioning and the relaxed atmosphere of the interview locations may induce candid responses. There is some evidence that this technique can obtain information of a kind not readily available from household surveys. For example, the New Haven study obtained information about illegal activities that had not been available from regular household surveys. Fifth, the technique is a relatively inexpensive method of obtaining a large number of responses in a short period of time. The elimination of callbacks to locate specific individuals resulted in a lower cost per schedule than in household interviews.

A major disadvantage of the casual interview technique is that it does not provide a sample with a scientifically delineated universe. This makes it difficult to establish the representativeness of the survey findings. This objection is partially blunted when the survey is done in conjunction with a complete census count. Under these circumstances, the individuals reached were members of the census universe, although not necessarily a random sample of this group. Despite this objection, the advantages of selectivity, direct access, candid responses, and low expense appear to make this technique a useful tool for determining the characteristics of the undercount.

There is no set requirement for the type of enumerator to use for casual interviews. In New Haven, all of the interviewers were men experienced in field work and familiar with the area of enumeration. In Trenton, the interviewers were young men and women of various ages with some survey experience. Both male and female enumerators were successful. Although experience with using nonindigenous interviewers in these situations is limited, a strong case could be made for the use of interviewers who are indigenous to the area.

Variation in the hours of enumeration served to prevent labor force bias. It appeared best to interview during day and evening hours, and over the weekend where that is possible.

The samples in both New Haven and Trenton were not designed to be representative of the city as a whole but rather of specific areas—minority group poverty areas. The enumerators were instructed to interview men from minority racial or ethnic groups between the ages of 20 and 50. This group was selected because of undercount rates estimated to be very high. In New Haven, the 500 men were primarily Negro; in Trenton the 900 men were primarily Negro and Puerto Rican. The data indicate that in each city about 10 percent of the men had ages outside of the boundaries set. However, this percentage was substantially lower than it would have been had there been no attempt to restrict the sample.

In each city, the casual interviews were conducted in poor areas, and the sites were such places as bars, restaurants, poolrooms, street corners, and park benches. In New Haven, this was done to increase the percentage of unemployed and marginally employed men (working in low-skilled, low-paying jobs) because it had been suggested that these men constituted a disproportionate

share of the undercount, whose characteristics were the focus of these studies. In Trenton, the sections of the city where interviews were conducted yielded a similar sample of men.

Thus, any differences between the men in each sample and the total population of their city would reflect the method of sample selection and would have no necessary correlation with the social and economic distribution of the undercount or the population of that city. However, the characteristics of the sample group are not atypical of other samples that have been drawn from urban poverty areas.[6]

The small sample size and the restricted nature of the selection process have precluded the drawing of any definitive conclusions about the characteristics of all persons not counted. We have no way of knowing whether the characteristics of unenumerated men reached through the casual interview technique are typical of the entire undercount. There are two reasons for this uncertainty. First, the characteristics of the undercount in other geographic areas, economic strata, or age groups may be very different from the characteristics of the undercount in an urban poverty area. Second, even within an urban poverty area, the technique of casual interviews may not reach all of the undercount. For example, there may be some men who never go to bars or stand on street corners. However, the quality of the findings that have been made thus far suggests that additional studies should be undertaken. The question now is whether the insights thus far obtained from studying the undercount among minority groups in urban poverty areas would be supported in similar or dissimilar studies of other groups in other areas. Wider application of the method described above may bring us closer to obtaining a better definition of the characteristics of the undercount, better understanding of the reasons for the undercount, insight into techniques that might reduce the extent of undercount, and a better appreciation of published data that is affected by the undercount. □

———*FOOTNOTES*———

[1] Refers to Negroes, Orientals, and American Indians. Nationwide, Negroes make up about 92 percent of races other than white, and a higher proportion in urban poverty areas.

[2] For sources of estimates and more detail, see Jacob S. Siegel, "Completeness of Coverage of the Nonwhite Population in the 1960 Census and Current Estimates, and Some Implications," in David M. Heer, ed., *Social Statistics and the City* (Cambridge, Mass., Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University, 1968). A summary of the methods used to estimate the extent of the undercount will be found in BLS Report 354, *Pilot and Experimental Program of the Urban Employment Survey*. For a more detailed description, see Jacob S. Siegel and Melvin Zelnik, "An Evaluation of Coverage in the 1960 Census of Population by Techniques of Demographic Analysis and by Composite Methods," *1966 Proceedings of the Social Statistics Section, American Statistical Association;* Leon Pritzker and N. D. Rothwell, "Procedural Difficulties in Taking Past Censuses in Predominantly Negro, Puerto Rican, and Mexican Areas," and Eli S. Marks and Joseph Waksberg, "Evaluation of Coverage in the 1960 Census of Population through Case-by-Case Checking," in David M. Heer, ed., op. cit.

[3] See Denis F. Johnston and James R. Wetzel, "Effect of the Census Undercount on Labor Force Estimates," *Monthly Labor Review*, March 1969, pp. 3–13.

[4] For a detailed description of this research, see BLS Report 354, cited in footnote 2.

[5] In New York only three cases of undercount were identified. Because of this small number and because of the large number of unlocated addresses, meaningful comparisons between found and missed persons could not be made. There was considerable difficulty in locating apartment dwellers in the multiunit tenaments with poor or nonexistent tenant identification typical of the poverty areas in New York and other large cities.

[6] Tables providing detailed data on the characteristics of the respondents in the Trenton study are available from the Bureau of Labor Statistics, and will be published in a forthcoming Special Labor Force Report.

IRRA Conference Papers

THE FOLLOWING excerpts are adapted from papers presented to the Twenty-Second Annual Winter Meeting of the Industrial Relations Research Association, December 29–30, 1969, in New York City. Additional IRRA papers will appear in the April issue of the *Review*.

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

THE CAMPUS REVOLT FROM AN INDUSTRIAL RELATIONS PERSPECTIVE

FREDERICK H. HARBISON

THE CURRENT UPSURGE of student power on the Nation's campuses bears some striking resemblances to the rise of union power in the mass production industries 30 years ago. The initiation of union-management relations in automobiles, rubber, and "big steel" was fraught with violence, occupation of plants and buildings, emotional charges and accusations, and gloomy speculation about the survival of the American system of private enterprise. Many corporation executives shook their heads in dismay and warned that big industry would never be the same if unions were to invade the sacred area of managerial prerogatives. They were right; the large corporations were changed by collective bargaining and the approach of American industry to human relationships was drastically altered. Industry survived the onslaught of unions, apparently stronger, more resourceful, and certainly more socially responsible than before.

Today, there are those who fear that the campus militants will destroy the universities and that the universities will never be the same. Again, they may be right. But it is quite possible that universities will be better institutions in the future as they are forced to respond to the pressure of growing student power.

I would not suggest that student-university relations are exactly like union-management relations. Students, presumably, are intellectual transients in the universities, not committed as are workers to corporations for their livelihood. Unlike workers, students are consumers (of knowledge and education) rather than producers. Universities and corporations have different goals. The corporation attempts to maximize profits by selling a product or service; the university strives to maximize the contribution to and extension of knowledge. The subject matter for student-university relations and union-management relations is thus entirely different. The similarities lie in power relations—in the organization and management of protest, in the challenge to traditional prerogatives, and to some degree in the joint machinery for rulemaking. The workers in the thirties and present-day students also share the same suspicions about the integrity of the institutions of which they are a part.

Foundation for revolt

A crisis of belief, a questioning of legitimacy, resentment against authority, and feelings of frustration by themselves do not generate rebellion. There must be catalysts—leaders and prime movers—to organize protest and direct it against specific targets.

In the thirties, the CIO was the instrument of revolt. It fomented strikes, won union recognition, and instituted collective bargaining with only a handful of activist union members. Today, the

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student rebellions on the campuses are managed by very small groups of militants. Some are genuine revolutionists; they would be happy to destroy the universities as a first step in a grand liquidation of the existing social and economic system. Others would accept, but drastically reform, the establishment. Their immediate common objective, however, is to exert the maximum possible pressure on what they call the power structure in the universities.

In the thirties the mass production industries were organized by men such as John L. Lewis, Walter Reuther, Philip Murray, Sydney Hillman, Clinton Golden, and others in the CIO who, in company with activists and some leftist militants from the workers' ranks, built the organizations which successfully established the beachheads of collective bargaining.

In contrast, today's campus militants lay more stress on what they are against, but have little to say about what they are for. The leaders of the Students for a Democratic Society, for example, organize protest against Reserve Officers' Training Corps, against research contracts with the Department of Defense, against the military-industrial complex, against the draft and continuation of the Viet Nam war—and even against the wages paid to painters' helpers at Harvard. They are not seeking recognition for the purpose of bargaining but searching for issues upon which to mobilize protest. In some respects, therefore, SDS is like the old Knights of Labor. In theory, the Knights stood for rebellion against a powerful ownership establishment controlling ever larger aggregations of power which were dominating the political life of the Nation. The Knights espoused many causes—cooperatives, agrarianism, trade unionism—at the same time that they wanted to do away with the wage system and make every man his own capitalist. The SDS likewise has a mixed bag of objectives and sincerely held beliefs.

The CIO leaders had no desire to overthrow industry or even to change it drastically; they sought rather to wring from it concessions and to acquire control over managerial decisions relating to wages and conditions of employment. They enjoyed the full support of the left, a generally sympathetic public opinion, the active support of the New Deal administration in Washington, and much encouragement from various politicians. To achieve their ends they resorted to protests, strikes, sitdowns, occupation of plants, vilification of big business and its leaders, and any other means, fair or foul, to bring the captains of industry to their knees. The CIO was involved in some very bloody struggles, because the corporations, unlike the universities today, were tough, powerful, ruthless, and eager to slug it out with their challengers. Throughout the struggle to establish collective bargaining, however, the CIO leadership, in organizing protest, always had a clear idea of what they were for as well as what they were against. They achieved their major objective despite powerful, well-organized, and well-heeled opposition.

The black student organizations, however, are quite different from SDS, more closely resembling trade unions. They admit only blacks to membership. Their ranks are united in a common awareness of discrimination and exploitation. They have an almost made-to-order ideology and a solidly based rationale for militancy. And above all they are able to agree on fundamental objectives in confronting the universities—more black teachers, more black students, black studies programs, black dormitories, and control over the discipline of black students. Black militants seek to mobilize and manage protest, but they are more willing to negotiate and bargain with universities over terms than the Students for a Democratic Society. They are the most united and strongest of the militant campus organizations, mainly because they are craft-union-like in their strategy.

Power at the top

On the whole, however, the militant campus organizations are weak in comparison with the CIO organizations in the thirties. They do not have the sympathy and support of the public and the government which was enjoyed by the CIO. But they have one very important compensating advantage. The universities today are much easier marks for confrontation than were the authoritarian corporations of the thirties who could form a united front and follow a consistent strategy when dealing with unions.

The present-day university is a very different kind of organization. It is a structure with comparatively little power at the top (the administrative-trustee level) because in theory at least major

decisions are made by the faculty. In the university, the principle of colleague authority rather than executive authority is presumed to prevail. However, faculty members, although cherishing their academic prerogatives and privileges, are more concerned with their individual rights.

When confronted by campus militants, therefore, the university is not able to present a united front until it builds a consensus. This is a difficult and time-consuming process, and the militants can always find among the faculty ranks some sympathetic, eager, and vocal allies. Thus, in attacking the university establishment, the militants have their agents within it.

An initial response to student activism has been the establishment of joint machinery of all kinds to "restructure" university decisionmaking processes. Students are now serving on every conceivable kind of joint committee at the department and universitywide levels. They are being brought in on everything from campus life and curriculum reform to university real estate operations, fund raising, and investment of endowment funds.

Joint machinery on campus

The objective of the new joint machinery on the campuses is to achieve a better accommodation of interests of students, faculty, administration, and trustees. It is also designed as a sort of lightning rod to arrest campus revolts. In industry, the company unions and later collective bargaining have indeed grounded the forces of revolutionary change. Unions and workers, through a process of antagonistic cooperation, have become stalwart defenders of the industrial establishment. The crucial question is whether joint machinery can handle power relations on the campus as well as it did in industry.

In reality, the creation of joint machinery offers no panacea for unrest on the campus; and it would be foolish to assume that it will deactivate militant student groups. Many militants may prefer to operate as an outside protest organization to confront the establishment with their "nonnegotiable demands." Black student militants, likewise, have more to gain by direct action rather than participation as a minority in universitywide joint machinery. Operating like trade unionists, they have a bargaining advantage because the universities are both reluctant and afraid to take stands against them—reluctant because of conscience and humanitarian concern, and afraid because they might be labeled as "racist" by student groups they want to attract to the campus.

The operation of the joint machinery in itself also poses thorny issues. What constitutes student participation? Does it assume consultation or codetermination or both? If in practice it involves both, then what matters will be subject to codetermination, and in what areas will the faculty and administration seek to retain unilateral authority? The issue of managerial rights vs. union control lies at the core of collective bargaining relationships. Similarly, the dividing line between faculty and administration prerogatives vs. student control over decisionmaking will be the basic issue in university-student relations, no matter what kind of joint machinery is established or how carefully its constitution is drafted. An examination of a few current issues may make this point clear.

The rules of conduct governing campus life is an appropriate area for joint negotiation. For example, the trustee-administration-faculty forces will find it difficult to retain exclusive proprietorship over rulemaking on matters such as visiting hours in dormitories, drinking, drug use, or formulation and administration of disciplinary procedures. Likewise, student groups will certainly command a greater voice in determination of curriculum, grading systems, and examination procedures. Faculty members appear willing to take a lot of advice from the consumers of education on such matters, and this may be tantamount, in many cases, to codetermination.

Student participation in the selection, promotion, and tenure of faculty members, however, is a different matter. Here faculties may welcome the opinions, but certainly not the votes, of students. Similarly, faculties may be expected to hold the line on student participation in designation of appropriate areas for research. For example, many campus militants are indignant about war-related research, and are pressing for termination of research contracts with the Department of Defense. Faculty members are likely to unite against any student encroachment on their prerogatives with respect to research. In a parallel situation in collective bargaining, management flatly rejects any attempt by the union to determine what products a company shall produce or how to produce them.

The development of Afro-American studies is, perhaps, a special case. Many universities are quite receptive to setting up such programs. Because of the strength, cohesiveness, and bargaining power of the black student groups, major concessions are being made in some universities. Nevertheless, the extension here of the areas of joint determination may lead to the erosion of faculty prerogatives in many other areas as well.

Another controversial area is admissions policy. The black groups quite rightly want to alter admission criteria to allow for entry of more blacks, Puerto Ricans, and other minorities. (A similar case in collective bargaining is hiring standards for employees.) The blacks are in good position to press their bargaining advantage. Most universities are already giving preference in admission to qualified blacks over equally qualified whites, and a few have already gone even further to adjust their qualification standards.

There is controversy over the extra-academic policies of the university, such as holdings of real estate in university neighborhoods, personnel policy governing nonacademic employees, and university investment practices. Students play the role of moral crusaders rather than consumers of education. University administrators, although forced to listen to student demands, may be expected to offer stiff resistance to formal codetermination in this area of decisionmaking which is so vital to the financial support of the institution. Accommodation will be difficult to achieve.

Finally, there is the issue of disciplinary action against students who occupy buildings or in other ways physically obstruct university activities. No university can long survive if it continues to surrender to coercion of this kind. As General Motors discovered many years ago, a policy of being "tough, but fair" on disciplinary matters is essential for stable union-management relations. Universities, likewise, will have to take a firm stand on discipline to maintain their integrity in the face of campus revolts, and this in the final analysis will depend on whether the faculties will have the backbone to present a united front.

This analysis has concentrated on the similarities between student-university and employee-management relations. The similarities are mainly in *power relationships*—organized labor vs. the corporation, and organized student militants vs. the university establishment.

The relationships, whether characterized by armed truce, working harmony, or mutual cooperation, can lead to greater consensus by students, faculty, administration, and trustees on the legitimacy and the mission of the university in American life. Some temporary harm and even permanent damage may result. But on balance, the benefits ought to greatly outweigh the costs. □

UNION PROSPECTS AND PROGRAMS FOR THE 1970's

ALBERT A. BLUM

GEORGE ORWELL once wrote, "How right the working classes are . . . to realize that the belly comes before the soul, not in the scale of values but in point of time." Orwell was indeed perceptive insofar as the American labor movement was concerned. The AFL, during the first 50 years of its existence, steadily rejected the intellectuals' vague reforms and the Marxists' millenium and instead chose to seek more—more wages, shorter hours, and better working conditions. By doing so, they firmly fixed the labor movement as a permanent and prominent part of the American landscape while those unions that followed other pied pipers disappeared from the scene. Moreover, the AFL, inadvertently, helped alter the American economic scene more than those unions which had taken different routes. No matter what the AFL said about supporting the free enterprise system, it was, through collective bargaining, altering the system by preventing wages from being determined in the market place, by restricting the law of supply and demand as it affected workers, and so forth. These restrictions on *laissez faire* economics readied America for the mixed economy of the 1930's and after.

In the 1930's, the labor movement expanded its definition of "more" to include support for a host of social welfare legislation (still mainly concerned with the belly). During that decade, it reached its peak of effectiveness since labor's goals and those

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of nonworking class liberals coincided. They both sought to help the poor and the unemployed—to deal mainly with the issue of quantity. For one brief shining moment, labor and liberals saw eye-to-eye and together pushed through the major changes which we have labeled the New Deal. By the end of this period, both groups together had forged certain basic changes in American life: they had wounded *laissez-faire* and replaced it with a mixed economy; they had changed a group of small, select trade unions into a mass, labor movement; and they had destroyed the Marxist dream of using the working class's increasing poverty as the motivating force for a revolution by lessening poverty and misery among the organized workers.

Labor's genius was in recognizing that the belly should come first, as Orwell wrote, not that it was more important than the soul. It is this changing order of priorities which I believe is one of the keys to labor's prospects and goals in the 1970's. Will it continue to deal mainly with the problems of the belly or those of quantity as it has up to now, or will it shift some of its focus to the problems of the soul or to those of quality? Will it now be ready to deal more with qualitative needs which are more difficult to determine than hunger and more difficult to solve than unemployment? "Hunger calls for food to eat," comments a French member of the New Left. "But what does emptiness, boredom, dissatisfaction with life and with the world call for?" [1]

It is not as if the discontent with the qualitative aspects of American life is only felt by the New Left. If this were so, it would be only a relatively unimportant matter, for whatever the loud noises from the New Left, it numbers only a few. And it is not as if only intellectuals, ensconced in academic communities, beat their breasts concerning labor's faults. Academics generally are not particularly interested in the labor movement . . . Not only the New Left and intellectuals, whatever their relative importance, are troubled by issues of quality or soul, but also large numbers of others, and one such group is organized labor.

But first, there are the liberals, once so sympathetic to organized labor, but no longer caring very much about what happens to unions. They could not care less when the plumbers in southern California try to raise their hourly wages to $11.61; they could not care less when a union talks about the need to protect apprenticeship programs while it is using them as an euphemism for keeping segregation; and they could not care less whether or not a union secures a shorter work week—recognizing that this really often means more pay, not more time off. These reformers care about unions when labor takes a position on foreign policy or on civil rights. They only become sympathetic to unions when labor is trying to organize the really disadvantaged, such as farm workers or hospital employees. At other times, these once loyal supporters of labor are either not interested or hostile to organized labor. The reasons for this loss of support are not the result of the almost paranoid attacks upon intellectuals by AFL leaders, but because the reformer is becoming more concerned with style, soul, or quality and less with what the union movement continues most concerned—namely, quantity, or more.

The second group that talks about recognizing the need for quality of life includes some segments of management, and surely many of the intellectuals serving management. Rather than fearing the Nation's intelligentsia, industrial executives, unlike so many union officials, have used it—and at times even listened to it. One of the messages these intellectuals have carried is the need for satisfaction at work—that the worker is not only concerned with his belly but also is concerned with other things. As a result, some firms have become concerned that workers be given some role in decisionmaking concerning the job, that the work become more varied and creative, and that the worker have more responsibility. As a result of the work of scholars and propagandists for participative management, a number of firms are looking over their work situations and altering them. For this reason, among others, unions have not been able to organize some firms, and such workers as white-collar employees.[2]

The third group increasingly concerned with quality or style are the workers. Many signs indicate the desire of workers for participation in decisionmaking. They are rejecting negotiated settlements. They have voted against their union officials, causing increased turnover of union officers, often for apparently no real ideological reason. Both acts reflect at least the feeling that the workers want to be heard—even just to have the pleasure of saying "no." The pressure on the

part of workers in local plants or of certain categories of workers, such as skilled workers, to have a voice in decisions affecting their future is another manifestation of the push for participation. There are the few black caucuses demanding to be heard, and the increasing number of young workers, tired of tales about the thirties, who want to help decide their future in the seventies.

This worker discontent is not only over substantive issues but often reflects a concern with the style in which things are being handled—a desire to have a voice. One misreads this protest if one attempts to answer it by saying that since unions have become more democratic, provide more opportunities for change, and are more decentralized, "dissent can be expressed constructively within the present framework." [3] In theory, I agree, but people do not always act that sagely. It is like saying that blacks ought to protest only through present channels since they have made much progress. But it is because of the progress, and it is because many of them do not believe that they can secure what they want through the "present framework," that they protest outside of it. Similarly the workers, having seen their quantitative needs becoming more satisfied, may become more restless (as they have) and may even look outside the unions for answers to such questions as, "What does emptiness, boredom, dissatisfaction with life and with the world call for?" The dissatisfaction may cause him to feel threatened and to think about voting for law-and-order candidates or feel frustrated, as many of our ethnic white groups in their urban enclaves do and blame the blacks for it. "The fundamental cause" of all this restlessness, according to Archibald Cox, may, however, run "a good deal deeper. It is part of the same ferment that produces the civil rights movement, the draft-card burnings, and the student demonstra-

Comment on "Union prospects and programs"

Peter Henle, chief economist of the Bureau of Labor Statistics, was a discussant at the IRRA session on trade union prospects. Here is a portion of his comments on professor Blum's paper.

Albert Blum is seriously concerned with the rising discontent in American life, not just among college students, but also among, he believes, union members and management officials, not just with the Viet Nam war, but covering many different issues—the dissatisfaction of individuals on the job, the inadequacy of public services, the pollution of the environment, "pervasive" poverty, urban blight, and so forth.

These are very real issues. The question here can be simply put: what is the role of the trade union in meeting these issues? Blum thinks it hasn't been doing enough and suggests some additional actions for it to undertake, both at the bargaining table and on the outside.

In my view, Albert Blum loses sight of the central role of the union. Even though he states specifically that he doesn't want or expect unions to abandon their traditional role of asking for *more*, the tenor of his paper as a whole implies a rather complete redirection of union goals. The union is not in *business* (and I use the word advisedly) to solve the problems of society. It is in business to meet the needs of its members. Time and time again union members have shown that their support for the union is very directly related to their needs on the jobs.

Let me illustrate this referring to Blum's discussion of discontent among union members. Mention is made of several manifestations of this unrest, including the rejection of contracts recommended by union leaders, the displacement of union officials at the national and local level, the pressure for greater participation in bargaining by local union groups or categories of members such as skilled craftsmen, and the activities of black caucuses in some bargaining situations. These phenomena are far more common now than a few years ago. But the dissatisfaction appears to resolve around traditional issues of the "belly," not the "soul." Contracts are rejected because members feel aggrieved that their economic demands have not been met. Craftsmen insist upon the right to approve contract terms affecting them because they know that with this weapon they can obtain a higher wage differential. Officials are voted out of office because they haven't paid sufficient attention to the basic economic needs to the membership. The actions of the black separatist groups, too, seem to be focused almost entirely on bread and butter issues, especially employment and promotion opportunities.

So the focus of union activity must remain the needs of the workers on the job. But within this framework unions seem to me to have moved already a good distance from the "belly" to the "soul." Many of the issues which Oswald stressed, health, leisure, child care, and housing for example, are wrapped up more with quality than quantity. Blum points to the need for a more thorough look at the problem of job satisfaction. Here I think he is on solid ground and the unions, particularly the AFL–CIO, could do more.

tions in Berkeley. Today everybody wants more of everything." And Cox is right. The workers not only want more money, but they want more of everything.[4]

This does not mean that George Meany is not correct when he declares that a union leader cannot stop asking for more money. "If he does," Meany declared, "he isn't going to be the head of that union very long." And another union leader agrees: "I've never felt as much pressure from rank and file for more money."[5]

Obviously, no one expects a worker to be satisfied with what he is making. The very fact that he is making more will prompt increased demands, not less. But why do these demands continue to focus mainly on issues of quantity? It is because organized labor has rarely tried to satisfy other needs of its members. Organized labor has left to management the problem of increasing satisfaction *at* work. It has left to society the problem of increasing satisfactions *outside of* work. Labor has focused instead on the gut issues of money and job security, the prerequisites but not the only requisites of a good job. But unions in the 1970's must look to problems of quality.

What are the specific needs? Insofar as organized labor's demands in collective bargaining, union leaders might begin by reading what management spokesmen have been saying, and some of them are doing, to make work more meaningful. One start might be to stop hiring only economists as staff employees (reflective of the belly syndrome already mentioned), and hire some sociologists, psychologists, and organizational behavior types. A new type of staff employee might be able to offer prounion advice to counter antiunion advice management is securing from its staff. Moreover, these staff members might be able to develop or identify worker demands so that the securing of job satisfaction will be the result of real worker participation through unions in collective bargaining, not as a result of management largesse.

What might some of these demands be? The right of the workers to have more discretionary power over their jobs. Job rotation and job enrichment are some examples. Others can be discovered at the workplace, just as new economic demands have been discovered by unions which, more importantly, have fought for and achieved a voice in decisionmaking over the many matters now included in a typical union agreement. This indeed was a revolutionary change in American industrial life; now it has to broaden this involvement so workers have the right to participate with management in making a host of other decisions involving, first limited, then broader, aspects of production, planning, promotion, productivity, personnel, and priorities.[6]

Beyond these collectively bargained goals, unions will have to deal with the frustrations of the workers outside the job—urban blight, transportation bottlenecks, polluted air, excessive costs of inadequate medical care, old age, troubled schools, safety, status, leisure time alternatives, race relations, pervasive poverty, and foreign policy. The supposed failure of unions in not having fought hard enough to solve these problems has helped cause the split between liberals and labor discussed earlier.

But as the union movement once expanded its horizons from just the material well-being of its members to the material well-being of the broader society and helped change the nature of our economic system (moving from collective bargaining to political action and thus wisely rejecting the reverse order recommended by Marxists and intellectuals), so, I would argue that once labor, through collective bargaining, recognizes that there is more to the job than money, and more to time-off than just hours, then labor may well expand its political horizons again. □

———*FOOTNOTES*———

[1] Andre Gorz, *Strategy for Labor: A Radical Proposal* (Boston, Beacon Press, 1968), p. x. For a brief summary of the point of view of Gorz and his associates, see Sidney Aronowitz, "New Working Class, Old Labor Movement," *New Politics*, Vol. VII, No. 3, pp. 58–67.

[2] Arthur A. Thompson and Irwin Weinstock, "Facing the Crisis in Collective Bargaining," *M.S.U. Business Topics*, summer 1968, pp. 37–44; Fred K. Foulkes, *Creating More Meaningful Work* (American Management Association, 1969), passim.

[3] Peter Henle, "Some Reflections on Organized Labor and the New Militants," *Monthly Labor Review*, July 1969, pp. 20–25.

[4] Cited in Foulkes, op. cit., p. 30.

[5] *New York Times*, Dec. 1, 1969.

[6] See Adolf F. Sturmthal, "Workers' Participation in Management: A Review of United States Experience," in *International Institute for Labor Studies*, Bulletin 6, June 1969, pp. 149–186; Foulkes, op. cit., pp. 32–33.

UNION BARGAINING GOALS IN THE 1970's

RUDOLPH A. OSWALD

MORE, MORE, AND MORE will be the tone of bargaining in the 1970's. Wage and salary increases will be the predominant bargaining theme. This will be particularly true of the early 1970's, as workers try to make up for their failure to secure real gains in the late 1960's.

However, it seems to me more fruitful to try to envision the types of changes that will be made in fringe benefits, rather than concentrating on the rate of wage change or the proportion of national income going to wage and salary payments. It is in the area of fringe benefits that innovations will occur, and while nonwage items will continue to represent less than half of total compensation, they will grow at a more rapid rate than wages.

Nonwage payments have grown from simple vacation plans in the late 1800's to a broad program of benefits, including vacations, holidays, health and life insurance, supplemental unemployment benefits (SUB), severance pay plans, sick leave, maternity leave, funeral leave, voting time, jury duty pay, employee transfer rights, moving allowances, reporting or call-in pay, and overtime.[1]

In addition, one should consider such public social insurance programs as unemployment insurance, workmen's compensation, and old age, survivors', disability, and health insurance. These public benefits were enacted in good part as a result of labor's legislative effort.

Many fringe benefits were originally initiated by employers for the sole enjoyment of management personnel. Unions often got their ideas for negotiating specific fringe benefits from a review of management plans.

Growth and direction of benefits

The rates of economic growth and of technological change, the level of unemployment and the general movement of the price level affect the ability of unions to achieve their goals and to determine the relative emphasis on specific benefits.[2] In periods of rapid economic growth, more funds will be available for benefits leading to an expansion of public social programs as well as privately negotiated improvements. Periods of rapid economic growth are also likely to be periods of innovation and experimentation in developing new benefit proposals.

Rapid technological change leads to an emphasis on job security and related benefits. Similarly, high levels of unemployment tend to make shorter hours and job security programs more attractive. If unemployment rises, unions will press for programs to enhance job opportunities and protect existing jobs and income.

Inflationary periods generally lead to greater concern with wage than with nonwage payments. However, during periods of rising prices, both wages and benefits must be reviewed to ensure that they provide the real benefit intended. In distinction to the trend in the late 1950's and the 1960's, when many escalator clauses were curtailed or eliminated, I foresee not only the revitalization of such escalator clauses, but also their expansion to areas outside of the wage area, such as an escalator on pension payments, on long-term disability benefits, and the like. Numerous precedents already exist.

Alternative methods

In discussing collective bargaining goals in the benefit area, one must consider the following alternatives: (1) a benefit may be secured by an individual on his own; (2) it may be provided on a group basis through an employment relationship; (3) it may be purchased through some cooperative group arrangement; or (4) it may be established through a public program. In many European countries, the emphasis has been upon governmental benefit programs. The Scandinavians evolved a more comprehensive cooperative approach. In the United States, the predominant development was the private benefit program, which augmented the basic public programs. The question always is, what will be the pattern of the future?

I think that there will be a continued expansion of public programs, superseding some existing private programs. A number of benefit programs are already provided for the "poor" publicly, but

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for the rest of the population these are private benefit plans. For example, Medicaid establishes a public program of health care for the "poor," paid for out of general revenue. However, for workers who are part of the "nonpoor," health care is basically provided by group health plans under collective bargaining or unilateral employer programs. In a few cases, health care is a prepaid group cooperative program, or occasionally still an individually purchased benefit. In many European countries, this is generally a broad-based governmental program. I see no reason why the same type of public health insurance should not be extended in this country to all families, not just the aged.

The unions, in addition to their bargaining demands for health care, have long stressed the need for national health insurance.[3] The achievement of such a social goal would have a tremendous influence on the mix of bargaining table demands, with private plans dovetailed to complement public health programs.

Another public benefit that currently seems restricted to the "poor" is provision of actual housing. Today there are rent supplements or public housing for the "poor." While some union housing programs exist, such as cooperative, low-income, and retirement housing, the total number of such dwelling units is still miniscule in relation to the need. In order to overcome our massive housing shortage caused by the need for substantial influxes of new money, unions will demand that pension, life insurance, profit-sharing, and similar funds be used for expanded housing for those employees in whose names these funds are held. Unions in the future will be looking not only toward the level of benefits that are provided by these funds, but also toward the use of such funds for social purposes. The accumulated reserves of these funds are expected to more than double in the next decade.

Job training and education are other areas that combine a mixture of individual, employer-union, and public programs. Massive outlays were made in the 1960's by the Federal Government to enhance job training and educational opportunities, indicating a shift in the 1960's towards Federal involvement in job training and education that will be expanded in the 1970's.

Child care centers are still in a rather embryonic stage of development. Basically, individuals still make their own arrangements. A few union contracts call for such child care centers, and the Taft-Hartley Act was amended in 1969 to allow for the negotiation of trust arrangements for such centers. Cooperative child care and nursery schools have also developed in various parts of the country. A beginning has been made in providing public child care centers to allow "welfare" mothers with minor children to enter the labor force. All four of these approaches are likely to continue to grow in the decade ahead.

Another public benefit that is now being provided for the "poor" is legal aid. The basic notion of group legal services will expand so that workers can receive necessary legal advice, aid, and representation.

One area that I've neglected is that of profit-sharing. It exists by law in such countries as France and Mexico. It has flourished for years in such companies as Sears and Lincoln Electric. However, I foresee no broad expansion of this fringe benefit. Unions have basically opposed such plans because of their unfortunate experiences during the 1920's and 1930's. Employers have also generally resisted such programs. There may well be expansion of production-sharing programs such as the Kaiser Steel formula and others.

Specific benefit improvements

Significant progress in negotiating benefit improvements can be expected in three broad areas: (1) those dealing with job and income security; (2) those dealing with benefits that provide savings through group purchase; and (3) those yielding additional leisure.[4]

Job and income security programs vary from annual wage guarantees to reductions in working hours. In the years ahead, salaries will replace wages for a number of jobs that are currently considered hourly rated jobs. In other cases, the distinction between salaried and nonsalaried positions will blur, as hourly rated employees are guaranteed a certain number of hours per year. Such trends are already evident in the programs negotiated by the Longshoremen in the Atlantic and Gulf Ports, whose contracts provide up to 2,080 hours of pay or work per year. Another approach, common in such basic industries as steel, autos, aluminum, rubber, and glass, establishes a type of annual guarantee through the extension of SUB plans.

Subcontracting limitations are another area that will receive increasing attention in the 1970's. Restrictions will be sought on contracting out jobs, either domestically or abroad, to workers not enjoying equal pay and benefits. The development of conglomerate and international firms highlight the urgency of this issue.

Unions will continue to press in a number of areas for shorter hours of work to provide additional job opportunities and increased leisure for workers. For example, the trend toward longer vacations of the last few decades will continue during the 1970's.

Holidays will take on a form of minivacations under the Federal act providing five Monday holidays in 1971. Besides these minivacations, the number of holidays will also be expanded to provide workers with time to attend to their own personal needs—to perform their normal activities, to vote, to register, and to deal with their elected and appointed public representatives and officials.

The 8-hour day has already given way to the 7-hour day for millions of office and clerical workers. Union bargaining will spread the 7-hour day to workers in other occupations. Moreover, unions will demand shorter workweeks, although in some cases the shorter workday may be sacrificed for shorter weekly hours. For example, the workweek may consist of four 9-hour or four 8-hour days, or one of these schedules may be used only during the summer months. The number of 4-day weeks is already substantial, due to the rising number of holidays.

The growth in fringe benefits will cause unions to renew their demand for double-time pay for overtime. As these benefit levels have risen as a percent of total compensation over the last 30 years, the time and one-half payment has lost its impact as a detriment to the scheduling of overtime. Unions will also try to write contract provisions allowing workers to reject overtime, as increasing recognition is given to individual needs and desires. Women, in particular, are upset with employer requirements to work overtime.

Significant progress can also be expected during the 1970's in negotiating fringe benefits that provide savings through group purchase such as insurance plans. Group insurance is presently confined largely to life and health benefits, but the dropping of legal barriers may soon permit its application to auto and homeowners insurance and other types of services. Unions in Ohio and Wisconsin have already moved into the auto insurance area, and this benefit now exists in a handful of contracts. Homeowners insurance also lends itself to the application of group insurance principles.

Pension plans will provide survivor benefits as well as increased benefits as living costs continue to rise. In addition, portability and vesting will be stressed so that workers will not lose their benefits because of a change in jobs.

Occupational health and safety are matters of growing concern to unions. To the extent that new national legislation in this field does not provide adequate protection against these hazards, unions will have to win new safeguards at the bargaining table.

Each contract will depend upon the unique forces affecting that particular bargaining situation. Union negotiators will be responsive to the particular needs of their membership, which in turn will depend on the workers' age, length of service, income, number of dependents, and the level of pay and of benefits in their industry and the recent changes in those levels. Thus, 10 years from now some contracts will contain none of the benefit programs listed here, but other contracts will have incorporated many of them. □

———*FOOTNOTES*———

[1] Walter W. Kolodrubetz, "Growth in Employee-Benefit Plans, 1950–65," *Social Security Bulletin*, April 1967, pp. 10–27.

[2] For a survey of studies of the psychological factors which influence fringe benefits, see Richard A. Lester, "Benefits as a Preferred Form of Compensation," *The Southern Economic Journal*, April 1967, pp. 488–495. These studies show that worker preference for compensation in the form of fringe benefits has been increasing during the past two decades.

[3] The 1969 AFL–CIO convention reaffirmed its support for a comprehensive national health insurance system. AFL–CIO, "Collective Bargaining and Health," *Policy Resolutions of the Eighth Constitutional Convention, Atlantic City, N.J., October 2–8, 1969* (Washington, AFL–CIO, 1970).

[4] T. J. Gordon, *A Study of Potential Changes in Employee Benefits* (Middletown, Conn., Institute for the Future, 1969), 3 volumes.

WHO BENEFITS FROM HIGHER EDUCATION SUBSIDIES

W. LEE HANSEN

VARIOUS PROPOSALS have been advanced in recent years that would increase the resources available for higher education. Among these proposals are an expanded program of State or Federal institutional grants, income tax credits, contingent repayment student loan programs, larger amounts of conventional types of student financial aid, and the like.[1] While all of these proposals would directly or indirectly increase the resources devoted to higher education, they would provide these resources in different ways, to different people, and with varying effects.

To evaluate the desirability of these proposals requires that we know how the present system of financing higher education operates to promote the objectives of economic efficiency and equity. This paper explores one part of this much larger topic, by providing new information on the equity or income redistributive effects of higher education. The emphasis will be on the tax-supported systems which provide substantial subsidies to young people and the parents of young people enrolled in public colleges and universities. The focus will necessarily be on the State level, since the amounts of these subsidies, who receives them, and who pays for them, are largely the result of State rather than Federal policy. Moreover, because the income redistribution effects are likely to differ from State to State, we examine the results for two different States, California and Wisconsin. This requires estimating the nature and magnitude of these redistributive effects for Wisconsin, and then comparing them with a similar study for California. To keep the discussion within manageable bounds, attention is confined to undergraduate education.

We already possess some knowledge of the redistributional effects of public higher education from a recently completed study for California.[2] First, taxpayers in general subsidize the families of young people enrolled in public institutions of higher education. Second, larger subsidies go to those families whose children are eligible for and enroll in higher-cost, higher-prestige, institutions; and these families on average have higher incomes and are most able to pay. Third, higher income families do not pay commensurately higher State and local taxes in California. So, for higher income families, the ratio of education subsidy to total State and local taxes paid is higher. In summary, the operation of the California higher education system, works on the whole, to redistribute income from poor and lower middle income families to upper middle and higher income families.

These results hinge upon several key parameters: The structure of the tax system which provides funds for the support of higher education, the family income distribution of students enrolled in different schools, tuition charges, and the level of full educational costs per student at different schools. Because these parameters are likely to vary from State to State, it is important to replicate the California study so that the broader pattern of income redistribution effects will emerge more clearly. For example, in California admission to different types of colleges depends upon high school performance, with the standards being highest at the University of California, lower at the State colleges, and lowest at the junior colleges. We also know that the subsidy received by a student is greatest at the University, somewhat smaller at the State colleges, and smallest at the junior colleges. Admission standards give rise to different types of student clientele at each of the three systems, with, on average, the University having the highest income students and the junior colleges having the lowest income students. Finally, we know that because of its State income tax, California's overall tax structure is less regressive than that of most other States.

The Wisconsin system

We turn now to the estimation of the income redistributive effects of State-supported higher education in Wisconsin; unfortunately, data are not available on the 2-year community colleges. The value of the subsidy available to a Wisconsin resident who is a student in a public institution in Wisconsin is the difference between tuition and the full costs of college education (the costs of college

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are taken to include not only instructional costs, but also operational and capital costs). Despite differences in the apparent "quality" of the University of Wisconsin system and the Wisconsin State University system, the full institutional costs in 1964–65 were approximately equal, at $1,200 per academic year. Since tuition amounted to $300 at the University of Wisconsin and to $190 at the Wisconsin State universities,[3] net per-student institutional costs—or the per-student subsidies—amounted to $900 and $1,010, respectively. The effect of this tuition differential is to provide larger net subsidies to Wisconsin State University students and their families than to University of Wisconsin students and their families.

The ability to pay of families and students differs between the two systems, as indicated by the median family income levels. Families of University of Wisconsin students report median incomes of $9,700 a year in 1964–65, considerably higher than the $6,500 estimated family income of students at the Wisconsin State universities. Because Wisconsin's State tax system is progressive over this income range, the tax contribution differs considerably for the median families with students in these two systems.

Information on the single-year subsidies, family income levels, and State taxes can now be put together to show, in table 1, the redistributive effects of Wisconsin's State-supported system of higher education. It is important to remember that Wisconsin taxes go to defray the costs of a wide array of State-provided services, including some revenue-sharing with local communities. Hence, the State taxes included here do not reflect the taxpayer contribution to higher education alone; unfortunately, there is no easy way to determine what portion of a family's taxes is used to provide any particular service, such as higher education. At the same time it is clear that taxes are generally paid over many years while college subsidies are received only while the student is in college.

Several interesting results emerge from these data. First, families with children in college are subsidized—at least temporarily—by families who do not have children in college (this includes some families with children of college age but not in college). Second, the largest annual subsidies go to students at the Wisconsin State universities, as already noted. In addition, as a percentage of family income these subsidies are even more favorable to students at the Wisconsin State universities than to University of Wisconsin students. Third, the absolute amounts of the net transfers are higher for students at the State universities than for the generally more affluent University of Wisconsin students.

Comparison with California

To compare these results with those for California, several adjustments are necessary in the California data. One requires that the junior college system be excluded because, as of 1964–65, Wisconsin had no comparable 2-year college system. This adjustment necessitated another one, the exclusion of local taxes which in California provide substantial support for the junior college system. Thus, our comparison is limited to the two major systems in each State and to those fully dependent upon State financing.

The contrasts between the two States are sharp, as revealed by a comparison of tables 1 and 2. The subsidies per student are substantially higher in California, in part because of lower tuition (essentially zero at that time) and in part because of larger expenditures per student. Subsidies tend to be proportional to family income of students in the two California systems, but redistributive (inversely related to family income) for students in the two Wisconsin systems. Net transfers, which reflect the structure of State taxes as well as subsidies, are also proportional to family income in California. Meanwhile, in Wisconsin the higher level of taxes paid and wider differences in the

Table 1. Average higher education subsidies received, by type of institution children attend, Wisconsin, 1964–65

Item	Wisconsin families			
	Total	With no children in Wisconsin public higher education	With children at—	
			University of Wisconsin	Wisconsin State universities
Average family income	$6,800	$6,500	$9,700	$6,500
Average higher education subsidy per year	-------	0	900	1,010
Average State taxes paid	240	240	430	270
Net transfers	-------	−240	+470	+740
Average subsidy as a percent of family income	-------	0	9.3	15.8
Average State taxes paid as a percent of family income	3.6	3.6	4.3	4.1

Source: Based on unpublished information from University of Wisconsin, Wisconsin State universities, State of Wisconsin Department of Administration, and State of Wisconsin Department of Revenue.

Table 2. Average higher education subsidies received, by type of institution children attend, California, 1964–65

Item	California families			
	Total	With no children in California public higher education	With children at—	
			University of California	California State Colleges
Average family income	$8,000	$7,900	$12,000	$10,000
Average higher education subsidy per year		0	1,700	1,400
Average State taxes paid	192	182	350	260
Net transfers		−182	+1,350	+1,140
Average subsidy as a percent of family income		0	14.2	14.0
Average State taxes paid as a percent of family income	2.4	2.4	2.9	2.6

Source: Adapted from W. Lee Hansen and Burton A. Weisbrod, "Benefits, Costs, and Finance of Public Higher Education" (Chicago, Markham, 1969), table IV-12, p. 76.

family incomes of students combine to make net transfers relatively more redistributive between the two systems than are net transfers alone. While the exclusion of 2-year colleges somewhat limits the generality of the analysis for both States, the California study shows that the redistributive effects are magnified when 2-year schools are included.

Both Wisconsin and California end up providing substantial subsidies to about one-half of their recent high school graduates—those going to public colleges, whether universities, 4-year colleges, or 2-year schools. Many of these students, however, avail themselves of these subsidies for less than 4 years of college; in general, the higher the family income, the more likely the student is to complete college. No subsidy whatsoever goes to the other half of the high school graduates who do not attend public colleges—those who enroll in private schools and those who do not attend college at all.

The existence of this pattern of income redistribution has long been suspected even if not fully documented. Paradoxically, the most common justification, in the case of higher education, is that it helps to achieve greater equality of opportunity: the lower the tuition, the easier it is for students to attend. But even with low or zero tuition, sizable numbers of young people, particularly from lower income families, have been unable to attend State institutions.

Low tuition provides a large subsidy that is given out indiscriminately to every enrolled student, on the grounds that anyone enrolling is deserving of a subsidy. But when public funds for subsidies are limited, as they inevitably are, the proper question is: Who needs them the most? By and large, the need is greater for qualified students from lower income families.

Part of the justification for low tuition and the income redistribution that it promotes hinges on the external benefits that are presumed to result from higher education. But this appealing argument stems from a faith in, rather than firm knowledge of, the existence of and possible magnitude of these external benefits at the undergraduate level. I myself am skeptical.

From another point of view, it may be argued that, if a longer time period is considered, little or not actual subsidization of college students occurs. Because higher education leads to higher incomes, it is argued, students will in later life pay substantially more tax revenue to the State, and its taxpayers, in effect repaying the value of the subsidies received during their college years. But for California, the present value of additional State and local taxes expected to be paid falls considerably short of the present value of the subsidy received.[4] For Wisconsin, also, the subsidies would be only partially offset by the additional future tax payments to the State. The combined effects of the additional taxable income and the progressivity of the tax structure is not great enough to produce a sufficient lifetime increment to tax revenue. The difficulty in recouping past public subsidies is compounded, moreover, because considerable numbers of young people who benefit from higher education subsidies migrate from the State and in this way escape all or at least a part of the repayment via taxes.

The equity of a system of restricted subsidies to college-going young people has received little attention. Such a system seems to assume implicitly that college going is the primary, if not the sole, means of enhancing potential earning power or the prospects for a satisfying, enriched life. But at least roughly similar beneficial effects seem likely to result from other types of education and training programs, among them private technical training schools, conservatory programs, apprenticeships, on-the-job training, and the like.

What the existing subsidy system does is to encourage individuals to invest in higher education by making higher education relatively inex-

pensive. Meanwhile, young people who may recognize the inappropriateness of college to their own vocational aspirations are discouraged from pursuing alternative programs because they must pay the full (unsubsidized) costs of these programs. Yet these young people and their parents, who on average are less able to pay, continue to be taxed to support the college training of others.

In the interests of promoting greater equality of opportunity as well as widening the options open to young people, eligibility for public subsidies should be broadened to include other types of education and training in addition to college. Ample precedent exists in the GI Bill and manpower training programs for enlarging the range of programs in which students can be subsidized. If a broadened subsidy program is to be considered, however, we must again confront the question of financing, whether through additional public funds or through a redistribution of the subsidies now received by the college-going population.

This paper attempts to indicate the nature of the income redistribution effects of the public financing of higher education. What seems clear is that the redistributive effects, by and large, favor the upper middle and upper income groups at the expense of the lower middle and lower income groups. Whether society wants to continue to produce these redistributive effects when it chooses among alternative ways to increase financial resources for higher education remains to be answered. □

———*FOOTNOTES*———

[1] See Carnegie Commission on Higher Education, *Quality and Equality: New Levels of Federal Responsibility for Higher Education* (New York, McGraw-Hill, 1968), and *Toward a Long-Range Plan for Federal Financial Support for Higher Education: A Report to the President* (Washington, U.S. Department of Health, Education and Welfare, 1969).

[2] W. Lee Hansen and Burton A. Weisbrod, *Benefits, Costs, and Finance of Public Higher Education* (Chicago, Markham, 1969).

[3] Actually, the "tuition" figures include both "tuition and fees." Since tuition (payment for instructional costs) is less than total tuition and fees, the subsidies are slightly understated. The impact of State scholarships, based largely on financial need, cannot be estimated because of the lack of adequate data.

[4] Hansen and Weisbrod, op. cit., chs. 2 and 4.

RESOURCE ALLOCATION IN HIGHER EDUCATION

J. A. KERSHAW AND A. M. MOOD

HIGHER EDUCATION may be regarded as a system. It consumes resources, such as money and manpower, and it produces a number of outputs, such as educated people, occupational specialists, professional meetings, and research. There is a production function involved, and presumably, it is possible to combine the inputs in different ways to achieve desired combinations of outputs, although that has not yet been demonstrated. It is, in this gross sense, like the General Motors Corp. or the Bronx Zoo, unfortunately more like the latter than the former.

What makes the system difficult to deal with, among other things, is that its output is not easily specifiable—and where we can agree on what the output is, it is extremely difficult to quantify it. The inputs are easier to handle, although there are some tricky costing problems, and there is the further complication that it is not always clear whether some parts of the system are inputs or outputs. There is also the problem of which parts represent investment and which parts consumption.

As part of its framework for surveying knowledge about higher education, six major outputs have been identified that are intended to cover, for most practical purposes, the bulk of the output of higher education. They are:

1. *Classification of youths.* This refers to the much-discussed sorting process carried out by higher education, which determines who shall and who shall not be permitted to enter higher education; of those who enter, what institutions they may attend; having begun attendance, who may continue, who may move to a higher ranking institution, who must leave or move to a lower ranking institution; having graduated, who may attempt to obtain an advanced degree and who may not; having made the attempt, who shall and who shall not receive the advanced degree.

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This sorting process is a major determinant of social structure; higher education tries to carry it out by objective methods, by and large; but of course subjective judgment pervades the whole process, and there is no denying that youths from favored families receive special consideration.

2. *Occupational training.* Most of undergraduate education and essentially all of graduate education is occupational training. Even a purely cultural survey course has an element of occupational training if it requires homework, reports, and examinations. A prime attraction of the bachelor's degree to employers is the evidence it affords that the holder normally disciplines himself to carry out tasks somewhat conscientiously and on time, no matter how irrelevant they may seem to be. That's why U.S. Steel does not mind hiring someone who majored in Finnish Folklore.

3. *Research.* This refers to generation of new knowledge (ideally) and not to large development programs such as most of those funded by the military and space agencies. Departmental research is part of this output, as is much of the research funded by private foundations, National Science Foundation, and the National Institutes of Health. Research activities belong in this category if society holds the university primarily accountable for their quality; if a contracting agency is held primarily accountable, then the activity is a service and belongs in category 6 below.

4. *Organization of knowledge.* Higher education devotes a substantial portion of its resources each year to reorganizing the total body of knowledge; it is done mainly by the faculty, but students contribute too. The reorganization is required by research findings, by new insights into the interrelations and structures of knowledge, and by society's changing value system which in turn changes emphasis on different segments of the body of knowledge. The reorganization takes place when faculty members formulate their courses each year, when new textbooks are written and old ones revised, when meetings of professional societies take place, when curricular material is debated in the classroom, when journal articles are written that do not deal primarily with new research results, when courses are added and dropped, and when students change their pattern of demand for courses.

5. *General education.* This is the output that you read about in the first few pages of almost any college catalogue, but then it usually falls by the wayside as you move into the sorting process and the occupational training. Some 4-year colleges are seriously concerned about a general education; that is, providing each student with a reasonably sound model of how the world operates. Every person has such a model, which to him represents the real world and which forms the basis of his decisions throughout life. If it is a realistic representation, he will be a person of good judgment; if not, he will be a person of poor judgment.

A college student usually receives very little help from the faculty with this extremely important matter, except as bits and pieces of his model happen to coincide with the conventional academic disciplines. Mostly it is constructed from his own experiences and amateur inferences; their integration into a unified structure is left entirely up to him. Except for those bits of specialized curricular knowledge, he is not much better off, at most colleges, than those who do not go to college; he is a little better off because students get help from each other in relating formal course work to their models.

Another aspect of general education which is particularly important to students today has to do with social skills, interpersonal relations, social responsibility, and so forth. Here also most colleges have little to offer, but students do help themselves to some degree.

In sum, there is a noticeable output of general education provided by a few colleges, by a few courses at many institutions, and primarily by the students themselves.

6. *Services.* These are provided mainly by the larger institutions. The institutions carry out engineering and evaluation of weapons systems, space systems, transportation systems, and the like for Federal agencies. They operate agricultural experiment stations to serve farmers and the agricultural industries; engineering experiment stations serve the manufacturing and construction industries. Tests of drugs and food additives serve the pharmaceutical and food industries and the population at large. Business research institutes serve consumer-oriented industries and small business by maintaining useful statistical

indexes and carrying out various kinds of surveys. Local and State government are served by urban planning studies, water supply studies, sanitary engineering studies, air pollution studies, tax and equalization studies, and so forth.

Institutions are reimbursed by the agency receiving the service or they receive appropriated funds for performing them as a result of influence exerted by those benefiting from the service. Thus there is no real allocation of resources problem here; the institutions are mainly fulfilling demands of the economy at the market price. The services "cost" the institutions essentially nothing (so far as society's allocation of resources to higher education is concerned) and they receive the considerable benefit of keeping in touch with a variety of current practical problems.

THIS GLOBAL CHARACTERIZATION of outputs is far beyond anything systems analysts are presently trying to do in coming to grips with the resource allocation process in higher education. It is global because the survey is intended not only to discover what is known but to point up important areas where little or nothing is known and substantial research needs to be done. We solicit criticism of this set of outputs.

We have argued that this complex institution of higher education can and must be analyzed as a system, like other systems. It has its peculiar difficulties, and indeed it may be the most difficult of all institutions to deal with in terms of formal systematic analysis.

But progress is being made in a number of places and there is little doubt that the supporters of the system are going to demand that much more progress be made as the required resources devoted to the system become greater and greater with the passage of time. It is gratifying that economists, operations analysts, systems analysts, and behavioral scientists are beginning to apply the tools of their trade to this difficult new area. All of us will watch the results with great interest. □

Education and class

Educational credentials have become the new property in America. Our Nation, which has attempted to make the transmission of real and personal property difficult, has contrived to replace it with an inheritable set of values concerning degrees and diplomas which will most certainly reinforce the formidable class barriers that remain. . . .

Barriers against greater mobility are not made less imposing by public policies that reinforce the access to formal education of middle- and upper-income youngsters through subsidy and subsidy-like arrangements. Today, tax-supported and tax-assisted universities are full of nutant spirits from families whose incomes are well above those of the average taxpayers. . . .

—Ivar Berg, *Education and Jobs: The Great Training Robbery* (New York, Praeger Publishers, 1970).

Communications

RESEARCH AND THE WAGE AND HOUR DIVISION

ROBERT D. MORAN

To MANY PEOPLE, the Wage and Hour Division of the Department of Labor appears to be simply an enforcement agency finding and correcting minimum wage and overtime violations under the Fair Labor Standards Act.

It is all of this—and much more.

One of the areas in which the Division is involved quite considerably is research and analysis.

Many of the Nation's employed people today are enjoying the protection of particular statutory labor standards as the direct result of a need for such protection first established by research conducted or commissioned by the Wage and Hour Division. This research is a vital part of the Division's responsibilities, in addition to its primary concern with wages, hours, and employment rights of working people.

A brief outline of some of the major on-going research and of projects planned by the Wage and Hour Division will alert scholars and other interested parties to studies that will be available to them—and also to the Division's interest in encouraging research in the wage and hour field by researchers outside the Department of Labor.

1. A special study is being completed on the agricultural handling and processing industries. This will provide data on how changes in the Fair Labor Standards Act (FLSA) with regard to both coverage and level of the minimum wage have affected these industries. In a related area, another special study will be conducted in 1970 on the relative position of hired farm workers covered by the act and those who are not. Unlike other recently covered workers, the minimum wage level for hired farm workers is not scheduled to increase above the present $1.30 an hour level. The study of these workers' economic situation will provide a basis for any necessary legislative recommendations as to expansion of coverage or a higher minimum wage level.

2. General studies are made annually by the Wage and Hour Division to assess the economic and social effects of the provisions of the Fair Labor Standards Act (under section 4(d) of the FLSA) and the Age Discrimination in Employment Act (under section 13 of ADEA). These provide the statistical and analytic bases for recommendations regarding legislative action that is required, especially with regard to any general changes in standards or coverage. This report is submitted to the Congress each January.

3. Information and education programs are continually reevaluated by the Wage and Hour Division for effectiveness in order to ensure that the people affected by the acts administered by the Division receive materials that effectively explain employee rights and employer responsibilities. As a part of this process, information is obtained from persons who make complaints of violations as to the source of their knowledge of the law.

4. An exploratory study has been undertaken to see if appropriate data can be developed on the wage rates, hours of work, and working conditions of State and local government employees, other than those in hospitals and educational institutions. If data can be developed, surveys will be initiated to provide a basis for making recommendations relative to coverage under the Fair Labor Standards Act for such employees. Employees of hospitals and educational institutions, which were brought under coverage of the act in 1967 are the subject of a study (completed in January 1970) to assess the effects of coverage and changes in their minimum wage level.

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5. Periodic analyses are made of the certification of certain employees (such as handicapped workers, learners, apprentices, and full-time students) to work at special minimum wage rates below the applicable minimum required under the Fair Labor Standards Act and of the firms holding these certificates. These analyses identify trends in the demand for certification of various kinds of workers, the need for enforcement action, and of the possible need for changes in the administratively promulgated regulations governing such certification, or in the act itself. A survey of the use of two types of certificates has just been completed in connection with an evaluation by the Bureau of Labor Statistics on the relationship, if any, between the minimum wage level and youth employment.

6. In conjunction with the Division's regular enforcement program, data are being gathered on the characteristics of employees found to be paid less than the applicable minimum wage under the Fair Labor Standards Act. Data are being sought on employee characteristics such as age, sex, race, whether or not the employee is the primary wage earner of a household, and the number of the employee's dependents. These data will be used both to evaluate legislative proposals and to shape informational and enforcement programs toward aiding families with the lowest incomes. A broader study of the distribution of wage and salary workers in the labor force by wage-rate interval and by industry and geographic area has been proposed to BLS as a joint project.

7. Under the Fair Labor Standards Act and Walsh-Healey Public Contracts Act, periodic evaluations are made of the types of violations of the child labor provisions, by geographic area and age of the minor. Analysis is also made of the factors affecting the likelihood of violations. These analyses are used both to determine the level and type of effort needed to obtain compliance and to evaluate from an operational standpoint the potential effects of changes in the hazardous occupation orders issued by the Bureau of Labor Standards.

8. A preliminary evaluation has been made of the potential for improving compliance in large firms through educational efforts. On an experimental basis, contacts have been made with selected firms to ascertain their problems and willingness to cooperate, particularly with regard to the equal pay provisions of the Fair Labor Standards Act and to the Age Discrimination in Employment Act. Previous studies have shown that these are the areas causing most compliance problems in large firms.

9. Economic effects studies are being planned by the Division on the earnings of tipped employees in hotels and in eating and drinking places and of the proportion that tips usually constitute of the wages of these employees. The data will indicate whether there is a need for changes in the special provisions in the act dealing with tips.

10. Statistics on Wage and Hour investigation activity and findings are tabulated periodically by standard and act, geographic area, organizational component, size of establishment investigated (in terms of numbers of employees), and industry.

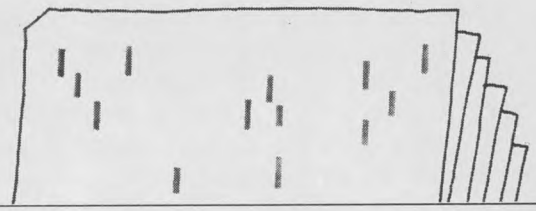
11. Monthly analyses are made of complaints received from the public alleging violations of the acts administered by the Division and of the number of complaints requiring investigation in inventory at the end of the month. Special breakdowns are made by program area such as equal pay, age discrimination, etc., as well as by organizational component of the Wage and Hour Division. These analyses identify trends in workload by geographic area, making necessary staffing readjustments possible at the earliest moment to provide prompt service to the public.

12. Data are gathered in support of investigations that result in litigation. The economic briefs prepared may cover the whole gamut of the Wage and Hour Division's responsibilities—from what constitutes a valid job distinction for equal pay purposes to what is the reasonable value of food, lodging, and the like provided by an employer in calculating the wages paid.

13. Biennial reviews are conducted by job classification of the industries in Puerto Rico, the Virgin Islands, and American Samoa, covered by the Fair Labor Standards Act to ensure that the minimum wage level is raised as rapidly as possible to the mainland standard without curtailing job opportunities in those areas. Economic data are gathered and a report is prepared on each industry prior to public hearings held by committees appointed by the Secretary of Labor to set such wage rates.

The interaction between research and enforcement in the Wage and Hour Division is truly a two-way street. □

Research Summaries



IMPACT OF LONGSHORE STRIKES ON THE NATIONAL ECONOMY

WHAT WERE THE economic effects of recent national emergency strikes? Is it possible to develop an analysis system or method that will give policymakers basic economic information to be used in deciding which situations merit Federal concern and involvement?

In 1969, a task force appointed by the Secretary of Labor began to develop and test a system designed to provide a dispassionate base against which to measure the economic effects of disruptions. The following is a summary of the 193-page task force report, *Impact of Longshore Strikes on the National Economy*, released in January 1970.

The task force considered three recent national emergency strikes of longshoremen in Atlantic and Gulf Coast ports. These strikes (1962–63, 1965, and 1968–69) were selected for analysis both because they appear to be archetypal examples of use of Taft-Hartley Act emergency procedures and because port stoppages have potentially pervasive impact throughout the economy. The October 1, 1968 injunction represented the seventh consecutive use of the provisions in this industry.

The problem of determining the impact of a strike is one of measuring deviations from the "norm" caused by the stoppage. The measurement involves an arbitrary determination of what is normal, the time period over which the deviations must be observed, and, most important, an implicit assumption that any portion of the deviation that cannot be attributed to some specific element other than the strike is due to the strike. In a dynamic world economy, trade flow patterns are constantly changing, and attempts to attribute the changes to a single cause, even a major cause, are necessarily of questionable validity.

This excerpt is adapted from the U.S. Department of Labor report, *Impact of Longshore Strikes on the National Economy*, prepared under the direction of an intradepartmental committee headed by John P. Gould, Special Assistant to the Secretary of Labor for Economic Affairs. The Transportation Task Force staff was directed by Edgar I. Eaton.

Summary of findings

The three strikes studied tied up East Coast and Gulf ports for the periods December 23, 1962–January 27, 1963; January 11–March 6, 1965; and December 20, 1968, to various dates between February 15 and April 13, 1969. In general, U.S. foreign trade patterns during and after these three periods failed to reveal any longrun effects which could be directly attributed to the strikes. The strikes had no visible impact on the economy as a whole—industrial production, retail sales, national income, or total employment.

None of the three strikes appears to have caused any lasting unfavorable shifts in the basic trends of either imports or exports. The general pattern in all three strikes was: Some buildup in both exports and imports in the month before the longshore contract was due to expire and additional buildup in the month before the Taft-Hartley injunction expired; sharp drops in both exports and imports during the months the ports were closed; and then a significant recovery in the 2 or 3 months following the final settlement.

In both 1962–63 and 1965, U.S. exports in total were considerably greater than U.S. imports, and the absolute changes in exports were greater than those for imports. In 1968–69, exports and imports were much closer to being equal in total and the absolute change in exports was relatively close to the absolute change in imports. The U.S. merchandise trade balance fluctuated around zero before, during, and after the 1968–69 strike.

Our estimates of average daily net loss in the

U.S. trade balance attributable to the strike are about $9–10 million a day in the 1962–63 and 1965 strikes and roughly $3–5 million a day in the 1968–69 strike. The range of the estimated average daily loss in the 1968–69 strike is fairly large because the strike ended in different ports on various dates between February 15 and April 13, 1969. The estimates of the total net loss in the U.S. trade balance are: approximately $350 million in 1962–63; about $450–500 million in 1965; and roughly $250–300 million in 1968–69. None of the total net losses appears large in comparison with total U.S. foreign trade—$41 billion in 1963, $49 billion in 1965, and $70 billion in 1969.

Several factors have contributed to the comparatively small longrun impact of longshore strikes. There is evidence in the data as well as statements from companies deeply involved in foreign trade that there is both activity in anticipation of the strike and a great deal of makeup after the ports reopen. Larger companies in particular tend to spread their anticipatory or defensive actions over a long period of time. The extent of this offset depends on available capacity. For example, the ports were operating near capacity in 1969, making it difficult to clean up the congestion after the strike. This was not so in earlier years.

It is worth noting that the 80-day "grace period" which resulted from the invocation of the Taft-Hartley injunctions may have contributed to the reduction of the strike impact by providing a clear signal that anticipatory activity was needed and by allowing an appreciable period of time to engage in such activity. At the same time, it is reasonable to expect that similar behavior might occur in anticipation of a threatened strike if it were made clear in advance that a Taft-Hartley injunction would not be sought immediately. Indeed, the evidence of anticipatory buildup in September, the month proceeding Taft-Hartley injunctions, lends credibility to this possibility. Moreover, our findings indicate that there is typically as much or more buildup in both imports and exports in the poststrike recovery period as there is in the prestrike period.

There appears to be no evidence of a permanent loss of export markets because of a strike. Any permanent losses would presumably show up in a slowdown in the rate of growth of either exports or imports not directly traceable to other causes—no such slowdown appears in the data, and questioning of both major U.S. exporters and U.S. embassies failed to develop examples of permanent loss of customers or access to markets. This relative stability of markets for goods moving in foreign trade despite the loss of some sales during the strike most likely reflects the high proportion of finished manufactures in U.S. trade. At present, over two-thirds of U.S. exports and almost 60 percent of imports are finished products, an appreciable share of which are well insulated against the effects of temporary breakdowns in delivery schedules. These goods reflect unique technological developments and patents, brand name maintenance, or consumer acceptance.

The steady growth of the multinational company with extensive international interplant transfers also undoubtedly has an impact on the stability of markets for finished goods. Because their various plants and subsidiaries are, in effect, captive markets, interruptions in the transportation system, such as those caused by strikes, will not generate changes in trade patterns for these companies. Market permanency, however, does not exist for many commercial agricultural products such as soybeans or wheat. These are normally sold on a strictly competitive basis involving price and delivery schedules. Inability to make delivery during strikes is reported to have caused significant losses of specific sales by the United States, but not any appreciable loss of ability to repenetrate the market once delivery again becomes possible.

Effects on domestic economy

With few exceptions, such as sugar cane and parts for some foreign vehicles, the strikes did not appear to generate shortages of materials or components in this country. Although waterborne commerce through East and Gulf Coast ports accounts for approximately half of total U.S. trade, the gross declines in trade between November and January, the height of the strike, were only about 35 percent in 1963 and 1965 and 30 percent in 1969. This reflects the fact that some commodities such as petroleum imports and coal exports are not affected by a longshore strike. To a minor degree, some shifting to air and alternate ports occurred.

Major manufacturing firms with significant export markets or reliance on imports indicate that they were generally well prepared and in a position to sit the strike out. These companies experienced some disruption of production and delivery schedules and some loss of profits because of strike-induced higher costs—use of alternate routes or modes of transportation, increased inventory costs, temporarily redundant personnel, loss of sales to better prepared competitors, and so forth.

Although the national economic impact of a prolonged strike appears to have been minimal, the strikes have severe or even disastrous impacts on some small immediate port neighborhoods and businesses, and on many individuals. The halt in port activity adversely affected small truckers, importers and exporters whose livelihood depends on a steady flow of merchandise, small retail establishments featuring imported products, and many port-supporting restaurants, bars, and so forth. The extent that the strike may have affected physical health or national safety (security) is difficult to determine. However, the impact on the movement of Department of Defense cargo has been minimal, and requests for special treatment based on health or security needs were normally honored.

The most visible impact of a longshore strike is on the oceangoing fleet and its workers. The Maritime Administration estimates that failures to sail cost U.S. merchant seamen about $21 million in potential wages, most of which cannot be made up since there are no means, such as overtime, to recover lost earnings. There have been estimates that it costs around $6,000–$7,000 a day to operate a vessel, even when it is tied up by a strike. At the peak of the 1969 strike, 650 vessels including 185 U.S. ships were tied up in ports. The direct costs to the U.S. vessels were thus over $1 million a day. Some of the costs can be made up when the strike ends by higher revenue from greater ship utilization—cargo already waiting in the ports for ships and faster turn-around times as a result of cargo consolidations. Again, the extent of this makeup depends on how near to capacity the ports and shipping-related companies operate under normal conditions.

Employment can also be affected by a strike. In a full employment situation, however, there tends to be a great deal of labor hoarding and, therefore, few layoffs. This was the case in the 1968–69 strike where the only significant layoffs took place in the sugar refining industry whose stockpiles were consumed before the strike ended. There were also a few sporadic layoffs in individual companies because of particular material or component shortages, or lack of business in service industries.

There is also a question as to whether the strike has any effect on the earnings of longshoremen. With the significant exception of the Port of New York, longshoring is frequently only an incidental occupation and, based on historical experience, ample opportunities exist to make up any losses by extended overtime work when the strike is settled. Using Baltimore as an example, almost 40 percent of the 5,500 registered longshoremen worked less than 100 hours in the year ending September 30, 1968, and nearly 50 percent worked less than 700 hours. Only 36 percent of the registered men worked 1,300 hours or more. If 1,800 hours is considered a full year's work (allowing for vacations, holidays, etc.,) less than 20 percent of the Baltimore longshoremen can be considered as regular longshoremen. Except for New York, it is clear that the bulk of longshoremen are casual workers, and conversations with stevedoring companies, port authorities, and other experienced people lead to the conclusion that they have ready access to other full-time employment. The regular workers are also in a strong position to be away from the piers for a fairly long period at the end of the contract year. Because longshoremen do not work for a single employer, their pay is handled through an employers' group established for this specific purpose. The group collects all fringe benefits from employers and then passes them on to the individual or to the union depending upon the particular benefit. In the case of vacation pay and holiday pay, a regular worker with a history of attachment to the port over the past several years collects a check in December covering these benefits for the contract year which ended on the previous September 30. This check is equal to approximately 6 weeks of full-time activity. In Baltimore it amounted to over $900. (He may also collect a sizable sugar-handling premium at the same time.) Even if the strike lasts beyond the December bonus of the average regular longshoremen, most have basic skills in handling machinery, and so forth, and are reported to have little trouble getting temporary jobs. □

OUTPUT PER MAN-HOUR IN SELECTED INDUSTRIES

CHARLES W. ARDOLINI

ALMOST ONE-HALF of a group of 31 selected industries experienced a decline in productivity from 1966 to 1967, with the remainder experiencing gains significantly below their long-term trend rate. This shortrun performance was in contrast with the long term average annual increase occurring in all of these industries during the 1957–67 period. The 1967 slowdown in productivity may have been partially attributable to the decline in capacity utilization, which is one of the most important single influences on shortrun productivity behavior.

According to the latest Bureau study of industrial productivity, presented in *Indexes of Output per Man-Hour, Selected Industries, 1939 and 1947–68* (BLS Bulletin 1652), the average growth rates for these industries during the 1957–67 period varied widely. (See chart 1.) In the air transportation industry, productivity increased 8.4 percent a year; footwear showed an average rise of only 1 percent. In general, the gains were higher than the all manufacturing average of 3.5 percent. Substantial gains (over 5 percent) were recorded in air transportation, petroleum refining, aluminum rolling and drawing, cigars, hosiery, radio and television receiving sets, railroads, gas and electric utilities, coal, malt liquors, tires and tubes, and primary aluminum. For the most part, these industries that experienced significant gains from 1957 to 1967 had also been the leaders in the previous decade. (See table 1.)

Changes in productivity are usually closely associated with output movements. About half of the selected industries with above average productivity gains also had above average output increases. Corrugated and solid fiber boxes was the only industry with a relatively low productivity increase and a high output increase, while flour was the only industry with a decline in output and an above average increase in productivity.

During the 1957–67 period, 14 of the 31 industries experienced declining employment. Employment levels are influenced by the combined movements of productivity and output: as output rises, employment will rise to the extent that it is not offset by an increase in productivity. Only three of the selected industries—air transportation, radio and television receiving sets, and man-made fibers—experienced significant employment gains in this period. In each of these, a large increase in output per man-hour was associated with an even higher increase in output. □

Table 1. Growth in output per all employee man-hour

Selected industries	1957–68 [1]	1947–57
Mining:		
Iron mining	[2] 2.9	[2] 1.8
Copper mining	[2] 1.4	[2] 2.4
Coal mining	[2] 5.7	[2] 6.3
Bituminous coal and lignite	[2] 5.8	[2] 6.5
Manufacturing:		
Canning and preserving	3.3	4.4
Flour and other grain mill products	3.9	3.2
Beet sugar	3.0	----
Candy and other confectionery products	3.7	2.8
Malt liquors	5.9	2.3
Tobacco products, total	3.6	2.6
Cigarettes, chewing and smoking tobacco	1.6	0.8
Cigars	6.8	4.4
Hosiery	6.8	2.9
Paper, paperboard, and pulp mills	4.7	3.3
Corrugated and solid fiber boxes	2.8	----
Man-made fibers	4.0	----
Petroleum refining	7.2	5.0
Tires and inner tubes	5.9	2.4
Footwear	1.0	2.5
Glass containers	2.1	1.0
Cement, hydraulic	4.8	5.2
Concrete products	2.5	5.6
Steel	2.6	2.1
Gray iron foundries	2.4	----
Primary copper, lead, and zinc	2.5	3.0
Primary aluminum	5.1	3.3
Aluminum rolling and drawing	7.0	----
Radio and television receiving sets	6.6	----
Motor vehicles and equipment	4.5	----
Other industries:		
Railroads	6.4	4.2
Air transportation	[3] 8.4	[3] 10.1
Gas and electric utilities	6.5	7.9

[1] Rates for iron, copper, and coal mining, steel, railroads, motor vehicles and equipment, air transportation and gas and electric utilities based on 1957–68; beet sugar, corrugated and solid fiber boxes, aluminum rolling and drawing and radio and television sets based on 1958–67 rates; rates for other industries based on 1957–67.
[2] Output per production worker man-hour.
[3] Output per employee.

Note: Based on least squares trends in logarithms of index numbers.

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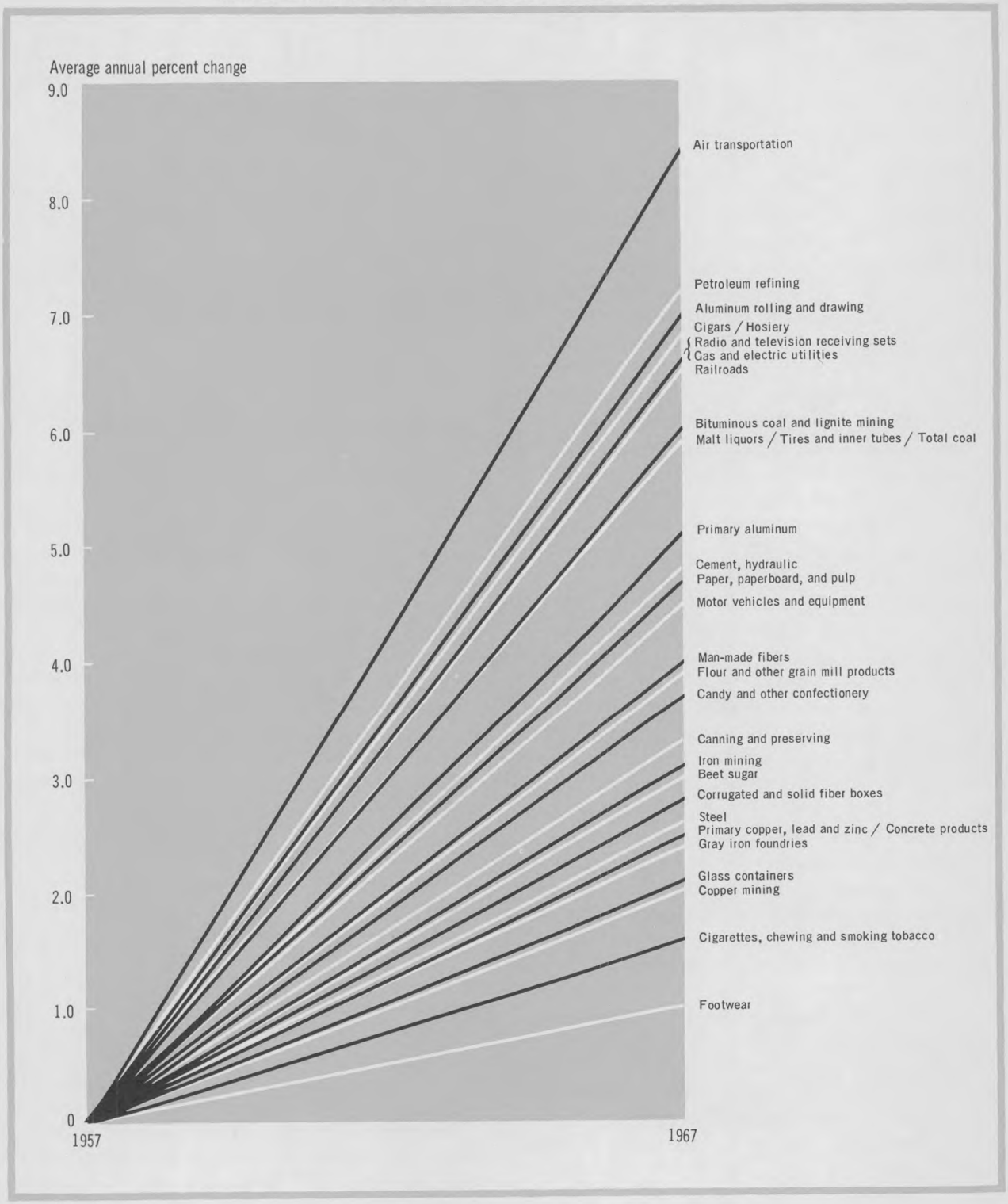
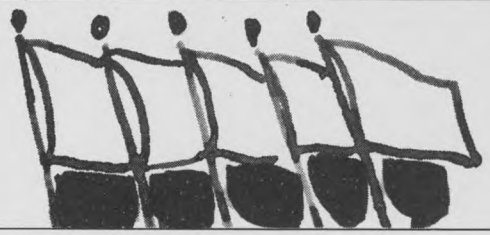
Chart 1. Growth in output per man-hour in selected industries, 1957–67



Foreign Labor Briefs



Canada

Substantial wage increases and an employer-financed welfare program were the workers' major gains in the settlement last fall of a 4-month strike by the United Steelworkers against the International Nickel Co. (INCO).[1] It was one of the longest and most serious work stoppages in Canada in 1969, and the first authorized strike the company had suffered since the union began to represent its employees 7 years earlier.

The new contract, effective last November 15 and covering 17,200 hourly paid members of the Steelworkers locals in Sudbury and Port Colborne, Ontario, provided for a three-step increase in wages and fringe benefits, totaling $1.255[2] an hour over the contract period. An immediate increase of 43.8 cents raises the hourly base rate of pay to $3 an hour, which for the first time exceeds the $2.72 (U.S. currency) an hour paid to INCO employees in the United States.

INCO officials have estimated that the resulting cost to the company, including higher overtime and holiday pay rates, will be $1.45 per hour, and that the settlement amounts to a 35-percent increase in labor costs. Wages account for 30.3 percent of this increase.

Total wage increases over the 3-year period of the INCO agreement will be 93 cents an hour, including a graduated cost-of-living bonus of 5 cents an hour during the third year if the consumer price index rises 3 points or more beginning October 5, 1970.

A welfare program fully paid by the employer beginning with the third year of the contract term is the major fringe benefit resulting from the settlement. Now financed by INCO and its employees, the program includes a new prescription drug insurance plan in addition to hospital insurance, sickness and accident insurance, and life insurance. Furthermore, beginning October 5, 1970, sickness and accident benefits will be increased from the present $65 a week for the first year to $70 a week for the first 4 weeks of incapacity, and $80 a week for 48 additional weeks.

Other provisions include 9 paid holidays instead of 8, sick leave up to 2 years depending on length of service, instead of the previous maximum of 14 days; a vacation bonus of $30 a week for employees who take their regular vacations in the off-season period between November 1 and April 30; and wage protection and retraining for workers affected by technological change.

The INCO settlement is expected to strengthen the wage demands of other unions. Traditionally INCO has been the wage leader for all Canadian mining companies and steel producers. Company officials reportedly have resisted union demands, which initially included a $2.12-an-hour pay raise, partly "because other employers, such as the steel companies, would be unable to meet such cost increases."

The Canadian Government has sought to limit wage increases to a maximum of 5 percent annually,[3] and the settlement at INCO may make it more difficult to do that without resort to controls on wages and prices. During the 12-month period ending September 30, 1969, average wages negotiated under major collective agreements in Canada increased by 6.6 percent.

As Canada normally accounts for over half the total world nickel production, these strikes also had international effects. Both the United States and the United Kingdom instituted controls on the export of nickel and nickel-bearing material. In the United Kingdom, the nickel shortage led to the cessation of some manufacturing operations.

Industry observers estimate Canadian refined nickel production for 1969 to be down nearly a third as a result of the strike, and shortages are expected to continue into May 1970. Official nickel prices of $1.03 a pound before the strike increased to $1.28 after the strike (U.S. currency).

Prepared in the Office of the Chief Economist, Bureau of Labor Statistics, on the basis of material available in early January.

West Germany

Wildcat strikes that had begun last September and spread to coal mines, shipyards, and public utilities [4] generated a wave of wage demands in nearly all major sectors. Many employer groups, even those not affected by wildcat strikes, have agreed to reopen wage contracts prior to expiration dates and to negotiate pay increases.

In the steel mills and coal mines the unions were bound by long term contracts. But in other industries increases had been obtained earlier in the year. In these industries unions requested and obtained additional wage increases for the balance of the contract term, which brought total wage gains in the major industries to at least 14 percent a year for 1968 and 1969. The increases were comparable to those obtained in the steel settlements. Since contract expiration dates were left virtually unchanged, the increases may be expected to set a pattern for the 1970 round of wage negotiations.

The following tabulation shows wage increases effected recently in selected industries:

	Number of workers	Percent of increase		
		Since wildcat strikes	Negotiated in 1968–69	Total
Metal manufacturing	3,500,000	8.0	7.0	15.0
Iron and steel	250,000	11.0	7.0	18.0
Hard coal	250,000	11.0	5.5	16.5
Chemicals	600,000	10.6	3.5	14.1
Construction	1,500,000	8.8	5.9	14.7

Unions in other major industries that have not yet made any contract changes also are planning to ask for higher wages. The Textile and Clothing Workers, the Commerce, Banking, and Insurance Workers, and the German Salaried Employees' Union already have asked for benefits similar to those obtained by other unions. In some instances additional benefits have been negotiated by works councils.

Management's readiness to compromise so as to prevent stoppages and walkouts has been prompted by the labor market situation. In October 1969, there was a ratio of one registered unemployed person to eight reported job vacancies. The labor shortage is reflected further in the fact that, generally, no disciplinary measures were taken against the instigators of wildcat strikes and, with few exceptions, strikers were fully or partly compensated by employers for wage losses because of the walkouts.

Turkey

A recent amendment to Turkey's Social Insurance Law No. 506 increased the rate of benefits from 50 to 70 percent of insured income, and lowered the retirement age from 55 to 50 for women and from 60 to 55 for men. The rates of employer and worker contributions remain the same, but the base of the contributions has been raised from the daily earnings range of $0.67–$11.11 to that of $1.33–$13.33. The new law fixes old age pensions and survivors' benefits at a minimum of $40 and a maximum of $400 per month; it also grants increased medical benefits to the pensioners.

Israel

Actions of the congress of Civil Service Union held in Jerusalem December 16–18, 1969, may have determined bargaining goals for other unions. About 550 delegates representing 53,000 civil servants took part in the meeting. The union is one of the most important in Israel because it represents workers in many spheres and occupations in government service.

The outcome of the congress' deliberations is likely to be reflected in the forthcoming wage negotiations,[5] and its resolutions and demands may well be followed by other unions, such as Local Government Workers, Clerical Union, service workers, and unions of other than production workers.

Among the main resolutions adopted during the 2-day meeting were: A demand for a wage raise similar to that granted to other workers, reflecting the civil servants' reaction to statements of some public figures calling for wage increases mainly to production workers; a call for greater administrative and budgetary economy within the Histadrut—The General Federation of Labor in Israel, representing all unions in the country; and a call for "equal pay for equal work" to benefit women. Voted was also a demand that the prevailing Civil Service Regulations be replaced with regulations negotiated through collective bargaining.

Honduras

A recent collective bargaining agreement between the Standard Fruit Co. and the union of

its employees in Honduras provided wage increases averaging about 12 percent, plus added fringe benefits, and spelled out grievance procedures in considerable detail.

The basic wage for banana workers under the new agreement is now 36½ cents an hour compared with the old rate of 31½ cents, while wharf and pineapple workers' wages were raised 9 percent. Some skilled workers received increases of over 20 percent. Most workers will participate in a new incentive plan, which will pay them a special annual bonus based on the company's total exports.

Fringe benefits include noncontributory group life insurance, expansion of the company-operated school system in farm areas from 3 to 6 years of schooling, and improved medical benefits for workers and dependents. The company agreed to invest $300,000 annually in construction or repair of company-owned housing, and to donate land for a union housing project provided the union can obtain adequate financing for the project. The contract authorized joint studies by the company and the union of the feasibility of constructing worker-owned homes in farm areas. □

———*FOOTNOTES*———

[1] The INCO strike began July 10, 1969, and lasted till November 14, when the members ratified the agreement. Another strike, that of the Mine, Mill and Smelter Workers at the Sudbury plant of the Falconbridge Mines, Ltd., begun August 21, 1969, came to an end November 22 when 3,200 strikers approved a new contract's terms similar to those of the INCO settlement.

[2] Amounts stated in this item are in Canadian dollars, unless otherwise indicated.

[3] The 5-percent figure has never been formally stated by the Government. However, it has been reported that the Prices and Incomes Commission, formed in February 1969, has pressed for maximum annual increases of 2.5 percent in prices and 5 percent in wages. These figures were allegedly stated in an unpublished report of September 1969.

[4] See *Monthly Labor Review*, December 1969, pp. 63–65.

[5] Wage negotiations in Israel are conducted by the Histadrut in both public and private sectors.

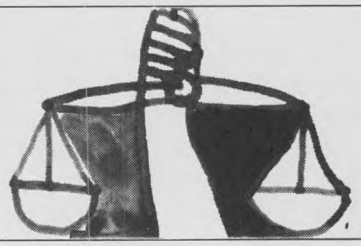
Families without wage earners

Families with no wage earner made up only 8 percent of the total number of families in 1967, but they accounted for 41 percent of the families with incomes of less than $3,000, 45 percent of those with less than $2,000, and 43 percent of those with less than $1,000. . . .

The percentage of families with no wage earners is only slightly higher for Negroes than for whites (10 percent vs. 8 percent). Such families accounted for 26 percent of all Negro families with incomes under $3,000 in 1966—a smaller percentage than that for whites (42 percent), since a much larger fraction of the Negroes who are actively working earn low incomes. As productivity levels rise and job opportunities for Negroes expand, Negro families with no wage earner will compose an increasing fraction of the total number of poor families. As a result, productivity programs are of greater relative importance to the Negro community than to the white community, but the same absolute proportion of the Negro population will need other programs if they are to have acceptable incomes.

—Lester C. Thurow, *Poverty and Discrimination* (Washington, D.C., the Brookings Institution, 1969).

Significant Decisions in Labor Cases



"Asserting" the right to Federal strikes

Statutory provisions barring from Federal employment any person who "asserts the right to strike" or joins a U.S. workers' union that "asserts" this right are unconstitutional—they violate the freedoms of expression and association guaranteed by the First Amendment. Their language is not ambiguous, it means no less than what it says; and they cannot be made constitutionally valid by means of semantics reducing their coverage to a narrow band of employee conduct that may legitimately be proscribed. The same is true of the employee oath designed and used to implement the measures.

This was the ruling of a three-member Federal district court in a postal union's challenge to the Post Office Department's enforcement of the law (5 U.S.C., section 7311 (3) and (4); Public Law 89–554, 80 Stat. 631). The Postmaster General was enjoined from requiring his employees to swear the oath, and all such oaths taken previously were invalidated (*National Association of Letter Carriers* v. *Blount*)[1].

Broadly, the suit was a union-Government encounter before the bar over the issue of Federal employees' constitutional freedoms. The union's, and the court's, repugnance to the potentially oppressive features of the statute in question prevailed over the Government's efforts to save the provisions by finding virtue in their alleged ambiguity.

The measures offensive to the union (section 7311 (3) and (4)) read as follows:

> An individual may not accept or hold a position in the Government of the United States or the Government of the District of Columbia if he—
>
> (3) participates in a strike, or asserts the right to strike against the Government of the United States or the Government of the District of Columbia; or
>
> (4) is a member of an organization of employees [of the U.S. Government or the District of Columbia] that he knows asserts the right to strike against [either government].

The unions' challenge did not center on the proscription of strike as such but, instead, attacked the broad scope of meaning of the word "assert" as used in the subsections cited above. Hence, it objected to the phrase "or asserts the right to strike" in subsection (3) and to the entire subsection (4), as well as to the oath's prohibition of such assertion.

Seeking dismissal of the case, the Government argued, first, that the union had no standing—nor a reason— to challenge the law since the law was concerned with individual employees, and these alone may take such action. The statute neither required unions to take an oath nor contained sanctions against them for asserting the right to strike.

Second, the Government maintained, a complaint that the First Amendment freedoms are in jeopardy may come only in response to the Government's action, an element missing in this case; a mere statement that some postal employees object to the oath does not establish a "justiciable controversy."

The court's response to these contentions may be revealing of the present-day climate of judicial thought on matters of labor-management relations in public service. Regarding the union's stand to bring action, the court said, "if [the union] openly 'asserts' the right to strike, its members may be put at a hazard since the statute carries criminal sanctions . . . and they could be barred from Government employment because of [the union's] activities." Furthermore, the courts have by now recognized the standing of associations to defend their members' rights in some circumstances.

Prepared by Eugene Skotzko of the Office of Publications, Bureau of Labor Statistics, in cooperation with the Office of the Solicitor of labor.

Nor did the court accept the Government's position that justifiable concern for the First Amendment rights may arise only as a result of the Government's action affecting these rights. This theory, dating back to the 1947 decision of the U.S. Supreme Court in *United Public Workers* v. *Mitchell*,[2] had been displaced, the court said, by the so-called "chilling effect" doctrine which assumes that "where freedoms of expression and association are involved, the threat alone of loss of job, criminal sanction, or other penalty may inhibit, or 'chill' their exercise [of right] and thus require court intervention to preserve them."

The degree of chilling is not always sufficient to deserve court relief. In the present case, however, "the chilling effect may be quite pervasive if 'asserts' is given its ordinary dictionary meaning." The oath not only is a condition of employment and may frighten employees away from the union, which they might want to join to improve their lot; it might also inhibit them from other activities protected by the First Amendment, including a legitimate legislative activity aimed at legalizing strikes against the Government.

Thus, the theory of chilling effect must be given full play in this case, the court held. And the judgment better be rendered now, rather than await an opportunity of a proper justiciable controversy.

In defending the merits of the law, the Government argued that the word "assert" referred to 'overt conduct to incite others' to strike, thus narrowing the statute's scope only to activity which Congress may properly prohibit. The Government had never thought the word to ban advocacy of a "change in the law to legalize strikes by Government employees." The confusion, the Government said, was attributable to an unfortunate 'idiomatic structure of the statute:' "asserts the right to strike" should be "asserts that there is (or ought to be) a right to strike." This ambiguity, the Government suggested, disappears when considered in the light of the statement of the law's sponsor during the debate in the House of Representatives: "assert" had been substituted for "believe" so as to stress the narrowing of the coverage to incitement only.

An "ingenious but unacceptable argument," said the court, adding:

> It is absurd to think that the ordinary employee will carefully parse the oath, grasp the suggested semantic subtlety, and conclude that he may argue for the right to strike with impunity. It is more ridiculous still to imagine that he will resort to this scrap of legislative history to resolve any ambiguity he perceived. Nor can the Postmaster's interpretation, never publicized or embodied in regulations and not binding on his successors, be relied upon to any extent to remove the ambiguity.
>
> The short of the matter is that the language of the statute, reinforced by the identical phrasing of the oath, is not ambiguous.

Since the statute provides for separability of individual provisions, the court's ruling invalidated only the contested portions of the law (pertinent parts of section 7311).

Coordinated bargaining

"Coordinated bargaining" is not a well-defined concept. At present it still is a rather indistinct idea—a phrase conveying a variety of meaning. But its basic reference is to a union's bargaining with an employer in the presence of delegates from other unions of his employees. The process is presumably calculated to produce separate but essentially coordinated contracts for individual unions.

In the fall of 1968, an attempt at such coordination of bargaining came before the National Labor Relations Board as the primary issue in a refusal-to-bargain charge against the General Electric Co. The Board then upheld the union's inclusion in its negotiating committee of observers from other unions as being consistent with employees' statutory right to choose their own bargaining representatives.[3] But a recent decision of the Board clearly indicates that the concept is a legally sanctioned one-way street: only employees are entitled by law to demand coordinated bargaining. It is an unlawful refusal to bargain for an employer to insist that unions coordinate their negotiating with him (*F. W. Woolworth Co.*).[4]

When two newly certified unions of employees of a Woolworth store asked for separate negotiations, the manager insisted that representatives of both unions attend all bargaining sessions. The unions declined and filed refusal-to-bargain charges under section 8(a)(5) of the Labor Management Relations Act.

The company maintained that it had not refused to bargain and was willing to conclude separate agreements with the unions. But it claimed that all its employees were functionally interrelated and, therefore, participation of both unions' representatives in all bargaining sessions was essential. Furthermore, the company said "it [was asking] no more than was required of the employer in the Board's *General Electric* decision." (Board's language.)

To the last argument, the Board replied:

> "[The *General Electric*] decision noted . . . that subject to certain limitations employees have a basic right under section 7 of the act to select their own bargaining representatives and the actual members of their own bargaining teams. This right of selection belongs to the employees, and it is only the employees or their duly designated bargaining representatives [who] may seek to exercise that right."

By insisting on joint bargaining sessions, the company was "infringing upon a basic employee right guaranteed by . . . the act." And since the employer's demand did not involve the terms and conditions of employment, its insistence was not over a mandatory subject of bargaining and could not be maintained justifiably till an impasse.

The seeming lack of consistency in the Board's attitude toward the idea of coordinated bargaining in the two cases—the upholding of it in *General Electric* and denying it in the present case—is accompanied by a similarity of situations as viewed in terms of employer interests. In both *General Electric* and here, the employer's objective plainly was an advantageous position vis-a-vis the unions. In the first instance, this purpose was obviously served by refusal to engage in coordinated bargaining; in the second, by insistence on coordinated bargaining. Indeed, in the present case, the company had opposed creating two bargaining units of its employees and had unsuccessfully requested that a single, companywide unit be established. As the Board found, the employer's insistence on joint bargaining sessions had stemmed from that situation.

Labor laws and baseball

Enshrined in the hearts of the public as the favorite American sport and a national pastime, professional baseball is also a nationwide business—"an industry" whose impact on interstate commerce is "sufficiently substantial" to preclude its exemption from the processes of the National Labor Relations Act. Such was the NLRB's reminder to the American League of Professional Baseball Clubs when the latter objected to its umpires' request for a representation election (*American League*).[5]

In defending its position, the League did not dispute that it was in business, nor did it claim the right to explicit exemption from the law. Instead, it tried to persuade the Board not to assert jurisdiction over it, in accordance with section 14(c)(1) of the act,[6] claiming that labor disputes in baseball, due to the sport's system of self-regulation, are not likely to have sufficient impact on interstate commerce to warrant such intervention. The League further argued that Congress had sanctioned baseball's internal self-regulation, hence the application of the National Labor Relations Act to the League would be contrary to the national labor policy.

The Board did not accept the League's contentions. To the assertion that Congress had sanctioned nonapplication of labor law to baseball, in recognition of its self-regulation, the Board replied emphatically, "We can find, neither in the statute nor in its legislative history, any expression of Congressional intent that disputes between employers and employees in this industry should be removed from the scheme of the [NLRA]. . . . Nowhere in Congress' deliberations [in 1935, 1947, or 1959] is there any indication that [the] basic rights [of free association, self-organization, and selection of representatives] are not to be extended to employees . . . in professional baseball or any other professional sport."

Turning to the area of Federal antitrust regulation for an example, the Board cited judicial opinion as well as evidence of explicit Congressional concern with professional sports. True, the Board said, the U.S. Supreme Court held in a 1922 decision[7] that baseball, though a business, was not interstate in nature and, therefore, not subject to antiturst laws. But the Court's subsequent decisions (including *Toolson* and *Radovich*)[8] "appear to proceed on the assumption that baseball, like the other major professional sports, is now an industry in or affecting interstate commerce, and that baseball's current antitrust

exemption has been preserved merely as a matter of judicial stare decisis." In these later rulings, the Court had clearly stated that Congress alone can determine baseball's antitrust status, thus implying that the interstate commerce clause of the Constitution gives Congress the power to regulate the sport—in matters involving antitrust laws as well as labor laws. Professional football and boxing have been found to be in interstate commerce, and legal authorities agree with that; there is no reason why the Court would think baseball to be an exception.

The NLRB agreed with the umpires that the alleged self-regulation is controlled entirely by employers and cannot prevent labor disputes. ". . . [T]he final arbiter of internal disputes does not appear to be a neutral third party, freely chosen by both sides, but rather an individual appointed solely by the . . . club owners themselves," the Board said. Moreover, self-regulation does not extend to employees other than players, and it is among the nonplayers that most of those requiring the Board's intervention are likely to be found.

Other arguments of League were disposed in short order: Baseball's international aspect is not unique—"many if not most of the industries subject to the act have . . . international features"; the petitioning umpires' association is a labor organization within the meaning of the act; and umpires are not supervisors—"the umpire merely sees to it that the game is played in compliance with the rules."

Member Jenkins dissented: ". . . [P]rofessional baseball's unique and favored status had . . . gained judicial approval, long before enactment of the NLRA. It is irrefutable . . . that Congress in 1935 harbored no intent to include the labor relations of professional baseball within the reach of the Board's jurisdiction." And subsequent legislative history indicates no change in this attitude of Congress, the dissent stated.

* * * * *

The inertia of the stare decisis adjudication, however, stamped its mark on a court ruling regarding baseball only a few days prior to the above decision of the Board. A Federal district court in New York City considered itself "bound" by the 1922 ruling of the Supreme Court that baseball was not subject to Federal regulation as interstate business, and dismissed a suit for damages brought against the same baseball league under the antitrust laws. (*Salerno* v. *American League.*[9]) Nor did the district court grant the plaintiffs' request that the 1922 ruling be reevaluated because baseball now is substantially interstate in nature. Whereas the NLRB, above, believed that the Supreme Court now thinks baseball to be subject to regulation, and cited the 1953 decision in *Toolson* as evidence, to the district court in New York *Toolson* merely served the purpose of stressing that Congress alone can say the last word in this matter. □

———*FOOTNOTES*———

[1] D.C.–D.C., October 30, 1969.

[2] 330 U.S. 75 (1947).

[3] *General Electric Co.*, 173 NLRB No. 46; see *Monthly Labor Review*, January 1969, pp. 73–74. In this case, the company had refused to negotiate with a union's bargaining team that included—as nonvoting members—representatives of other unions of the company's employees.

[4] *F. W. Woolworth Co.* and *Retail Clerks Union*, 179 NLRB No. 129, November 26, 1969.

[5] *American League of Professional Baseball Clubs* and *Association of National Baseball League Umpires*, 180 NLRB No. 30, December 15, 1969.

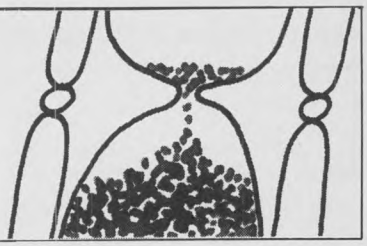
[6] Section 14(c)(1) of the NLRA reads in part: "The Board, in its discretion, may . . . decline to assert jurisdiction over any labor dispute involving any class or category of employers, where, in the opinion of the Board, the effect of such labor dispute on commerce is not sufficiently substantial to warrant the exercise of its jurisdiction. . . ."

[7] *Federal Baseball Club of Baltimore* v. *National League of Professional Baseball Clubs*, 259 U.S. 200 (1922).

[8] *Toolson* v. *New York Yankees, Inc.*, 346 U.S. 356 (1953); *Radovich* v. *National Football League*, 352 U.S. 236 (1957).

[9] *Salerno* v. *American League of Professional Baseball Clubs* (D.C., S.D.–N.Y., December 10, 1969).

Major Agreements Expiring Next Month



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

Company and location	Industry	Union [1]	Number of workers
Associated General Contractors of America, Detroit Chapter, Inc.; and Builders' Association of Metropolitan Detroit (Detroit, Mich.).	Construction	Laborers	6,000
Associated General Contractors of the Central Ohio Chapter; and the Newark Contractors Association, et al. (Ohio).	Construction	Laborers	2,300
Associated General Contractors of America, Chattanooga Chapter (Tenn., Ala., and Ga.).	Construction	Carpenters	1,900
Associated General Contractors of America, Detroit Chapter, Inc.; and Builders' Association of Metropolitan Detroit (Detroit, Mich.).	Construction	Cement Masons; Bricklayers	1,000
Associated Milk Dealers, Inc. (Chicago, Ill., area)	Food products	Teamsters (Ind.)	4,800
Avco Corp., Avco Lycoming Division (Stratford, Conn.)	Transportation equipment	Auto Workers (Ind.)	5,100
Bath Iron Works Corp. (Bath, Maine)	Transportation equipment	Marine and Shipbuilding Workers	2,100
Bickford's, Inc. (New York and New Jersey)	Retail trade	Hotel and Restaurant Employees	1,000
Big G Discount Foods; Great Scott Food Markets, Inc. (Rhode Island, Massachusetts, and Connecticut).	Retail trade	Meat Cutters	1,100
Building Trades Employers' Association (Cleveland, Ohio)	Construction	Operating Engineers	3,000
Building Trades Employers' Association of Rochester, N.Y., Inc.	Construction	Bricklayers	1,000
Building Trades Employers' Association; and the Steel and Iron Contractors' Association (Ohio).	Construction	Iron Workers	2,000
Building Trades Employers' Association, the Cleveland Chapter, Associated General Contractors (Ohio).	Construction	Laborers	2,700
Building Trades Employers' Association of Rochester, N.Y., Inc., the Excavating and Paving Division.	Construction	Laborers	1,200
Building Trades Employers Association of Westchester and Putnam Counties, N.Y., Inc.	Construction	Carpenters	2,400
Brown Co. (Berlin and Gorham, N.H.)	Paper	Pulp and Sulphite Workers	1,700
Carpenter Contractors' Association of Cleveland, Ohio, The Building Trades Employers' Association of Cleveland, Ohio, and Cleveland Chapter, Associated General Contractors of America, Inc. (Ohio).	Construction	Carpenters	6,750
Cartage Exchange of Chicago, Inc., Illinois Motor Truck Operators' Association, Inc., and Central Motor Freight Association, Inc. (Chicago, Ill. and vicinity).	Trucking	Machinists	3,000
Clay Sewer Pipe Cos.[2] (Ohio, Pennsylvania, Indiana)	Stone, clay, and glass products	Brick and Clay Workers	1,500
Cleveland Plumbing Contractors' Association (Cleveland, Ohio)	Construction	Plumbers and Pipefitters	1,500
Collins Radio Co. (Dallas, Tex.)	Electrical products	Electrical Workers (IUE)	3,300
Consolidated Paper, Inc., and Consoweld Corp. (Wisconsin)	Paper	Pulp and Sulphite Workers; Papermakers and Paperworkers; and Electrical Workers (IBEW).	3,100
Contracting Plasterers Association of Providence and vicinity (Providence, R.I.).	Construction	Laborers	1,000
Contracting Plasterers Association of Southern California, Inc., Orange County Lathing and Plastering Contractors Association, Inc. (California).	Construction	Laborers	2,500
Contractors Association of Eastern Pennsylvania, Heavy and Highway Construction (Philadelphia, Pa.).	Construction	Laborers	5,000
Contractors Association of Westchester County, Inc., Engineering Heavy and Highway Construction Agreement (New York).	Construction	Operating Engineers	1,400
Crown Cork and Seal Co., Inc., Plant 1 (Philadelphia, Pa.)	Fabricated metal products	Sheet Metal Workers	1,000
Del Monte Corp. (Salem, Oreg., and Vancouver, Wash.)	Food products	Teamsters (Ind.)	2,100
Detroit Lumberman's Association (Detroit, Mich.)	Lumber	Teamsters (Ind.)	1,500
Eastern New York Construction Employers, Inc. (Albany, N.Y., area)	Construction	Bricklayers	1,200
Eastern New York Construction Employers, Inc. (Albany, Schenectady, and Troy, N.Y.).	Construction	Laborers	3,200
Eastern New York Construction Employers, Inc., Dock Agreement (Albany, Schenectady, and Troy, N.Y.).	Construction	Carpenters	2,200
Eastern Products Corp. (Baltimore and Hagerstown, Md.)	Furniture	Furniture Workers	1,450
Electrical Contractors of Louisville, Ky.	Construction	Electrical Workers (IBEW)	1,000
Emhart Corp. (New Britain, Conn.)	Fabricated metal products	Machinists	1,600
Fafnir Bearing Co. (New Britain, Conn.)	Machinery	Auto Workers (Ind.)	4,000
Firestone Tire & Rubber Co. (Interstate)	Rubber	Rubber Workers	17,000
General Building Contractors' Association, Building and General Construction (Philadelphia, Pa., and vicinity).	Construction	Laborers	9,000
General Electric Co., Tube Department (Owensboro, Ky.)	Electrical products	Allied Industrial Workers	3,800
Goodrich, B. F. Co. (Interstate)	Rubber	Rubber Workers	11,000
Goodyear Tire & Rubber Co. (Interstate)	Rubber	Rubber Workers	20,250
Granite Manufacturers of Vermont	Stone, clay, and glass products	Granite Cutters	1,200
Greater Pittsburgh Dairy Industry Association (Pittsburgh, Pa.)	Food products	Teamsters (Ind.)	2,400

Continued on next page.

Major agreements expiring next month—Continued

Company and location	Industry	Union [1]	Number of workers
Horn and Hardart Baking Co. (Philadelphia, Pa.)	Restaurants	Hotel and Restaurant Employees	2,150
Illinois Association of Breweries and Chicago Beer Wholesalers Association (Chicago, Ill., and vicinity).	Wholesale trade	Teamsters (Ind.)	1,500
Lumber and Mill Employers Association (California)	Lumber	Carpenters	3,000
Mason Contractors' Exchange of Southern California, Inc.	Construction	Bricklayers	1,850
Merck & Co., Inc. (New Jersey and Pennsylvania)	Chemicals	Oil, Chemical and Atomic Workers	1,000
Metropolitan Edison Co. (Pennsylvania)	Utilities	Electrical Workers (IBEW)	1,550
Metropolitan Lithographers Association (New York and New Jersey)	Printing and publishing	Typographical Union	9,400
National Electrical Contractors Association of Detroit, Southeastern Michigan Chapter (Detroit, Mich.).	Construction	Electrical Workers (IBEW)	3,600
National Electrical Contractors Association, Greater Cleveland Chapter (Cleveland, Ohio).	Construction	Electrical Workers (IBEW)	1,500
New England Roadbuilders Association, Massachusetts Labor Relations Division (Massachusetts).	Construction	Teamsters (Ind.)	3,500
Northwestern Mutual Life Insurance Co. (Milwaukee, Wis.)	Insurance	Associated Unions (Ind.)	1,300
Parke, Davis & Co. (Detroit and Rochester, Mich.)	Chemicals	Oil, Chemical and Atomic Workers	1,450
Peoples Gas Light and Coke Co. (Chicago, Ill.)	Utilities	Service Employees	2,050
Philco-Ford Corp., Radio and Television Workers (Willow Grove and Philadelphia, Pa.).	Electrical products	Electrical Workers (IUE)	1,100
Philco-Ford Corp., Radio and Television Workers (Philadelphia, Pa.)	Electrical products	Electrical Workers (IUE)	3,200
Public Service of Indiana, Inc. (Indiana)	Utilities	Electrical Workers (IBEW)	1,550
Realty Advisory Board on Labor Relations, Inc., Apartment Buildings (Manhattan, N.Y.).	Real estate	Service Employees	20,000
Rex Chainbelt, Inc. (Milwaukee, Wis.)	Machinery	Steelworkers	1,300
Scientific Data Systems, Inc. (California)	Machinery	Machinists	1,050
Sheet Metal Employers' Association and Cuyahoga County Sheet Metal Contractors Association (Cleveland, Ohio).	Construction	Sheet Metal Workers	1,100
Southwestern Michigan Contractors Association (Michigan)	Construction	Laborers	2,500
Standard Brands, Inc. (Interstate)	Food products	Brewery Workers	1,000
Trucking Companies [2] (Dallas, Tex.)	Trucking	Union of Transportation Employees (Ind.)	1,150
Underground Contractors Association; Illinois Valley Contractors Association; Excavators, Inc.; Illinois Road Builders Association; Chicago Outer Belt Contractors Association; Illinois Truck and Equipment Contractors Association; and Wreckers Association, Inc. (Illinois).	Construction	Operating Engineers	4,500
Uniroyal, Inc. (Interstate)	Rubber	Rubber Workers	22,000
Whitin Machine Works, Inc. (Whitinsville, Mass.)	Machinery	Steelworkers	1,200
Wisconsin Road Builders Association, Labor Relations Division (Wisconsin)	Construction	Teamsters (Ind.); Laborers; and Operating Engineers.	2,500
Woodward Iron Co., Lynchburg Foundry Co. Division (Lynchburg, Va.)	Primary metals	Steelworkers	1,500
Yellow Cab Co. of Pittsburgh (Pittsburgh, Pa.)	Transit	Teamsters (Ind.)	1,100

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

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

Developments in Industrial Relations

GE settlement

After a strike that lasted more than 3 months, the General Electric Co., the International Union of Electrical Workers (IUE), and the United Electrical Workers (UE) reached agreement on January 26. The IUE, representing 80,000 GE workers, and the UE, representing 16,000, ratified the 40-month contract. Four other unions among the 14 that bargained with GE accepted similar terms. The four unions were the Flint Glass Workers, the Plumbers and Pipefitters, the Sheet Metal Workers, and the Firemen and Oilers. (The other unions in the 147,000-worker coalition were the Auto Workers, International Brotherhood of Electrical Workers, Teamsters, Steelworkers, American Federation of Technical Employees, Allied Industrial Workers, Carpenters, and the Machinists. These unions remained on strike.)

The Machinists union labeled the settlement as "inadequate" and recommended that its 14,000 members at GE reject the package. Unlike the IUE and the UE, the Machinists and the other unions involved bargain with the company on a local basis.

The accord was expected to influence bargaining between Westinghouse Electric Corp. and 9 unions for 80,000 workers. Contracts for some of these unions had expired in November 1969, but work continued under day-to-day extensions. In recent years, Westinghouse settlements have been patterned after those at GE.

The GE pacts provided for an immediate general wage increase of 20 cents an hour, plus 5- to 25-cent increases for skilled employees, and for 15-cent general increases effective in February 1971 and April 1972. The escalator clause was revised to provide cost-of-living increases of up to 8 cents an hour on October 26, 1970, October 25, 1971, and October 30, 1972, calculated at 1 cent for each 0.3-percent rise in the Consumer Price Index during the year preceding each adjustment. Three cents of the 8-cent maximum increase in October 1970 was put into effect immediately to compensate for the cost-of-living rise since October 26, 1969, when the previous 3-year contracts expired and the walkout began. Under the previous contracts the workers received a total of 3.5 percent in escalator increases.

The minimum pension rates for employees retiring at age 65 was increased to $5–$7.50 a month for each year of credited service, from a flat $4.50, further increasing to $5.50–$7.50 on January 1, 1971, $6–$7.50 on January 1, 1972, and $6.50–$7.50 on January 1, 1973. Other pension changes included adoption of a $125-a-month supplement for some disability retirees, and improvements in credits for service prior to January 1, 1961, and in the survivorship option.

The company agreed to assume the full cost of insurance for employees effective January 1, 1971, increasing the employee's take-home pay by about 1 percent, to provide for 100 percent of hospital room and board for up to 365 days, and to increase the sickness and accident benefit rate to 60 percent of normal straight-time earnings (from 50 percent) and the maximum benefit to $150 a week (from $100).

The vacation schedule was revised to provide 4 weeks after 15 years of service (instead of 20 years) and for a fifth week after 30 years, effective January 1, 1971. Other contract terms included adoption of a sick leave-personal business plan providing for annual accrual ranging from 2 days after 5 years of service to 5 days after 25 years of service; and improvements in training programs, Income Extension Aid for laid-off employees, and paid funeral leave. The unions won a "uniform" expiration for their contracts, although they did not gain a union shop.

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

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Mine turmoil

Joseph A. Yablonski, the 59-year-old challenger in the December United Mine Workers presidential election,[1] was found shot to death, along with his wife and daughter, on January 5 in their Clarksville, Pa., home.

The tragedy triggered a series of wildcat strikes by supporters of Mr. Yablonski, following a meeting in Monongah, W. Va., at which his campaign aides called for a nationwide coal strike "until some arrests are made" in the murders. The walkouts spread to include some 20,000 miners at more than 30 large mines in southwestern Pennsylvania, eastern Ohio, and northern West Virginia. The murders proved to be discomfiting for incumbent UMW President W. A. (Tony) Boyle; Mr. Yablonski had accused him of being a "dictator" and an "embezzler of union funds" during the election campaign. The challenger had also urged the U.S. Department of Labor to investigate the balloting. Mr. Boyle said that "as president of the United Mine Workers, I offer the fullest cooperation to the authorities of all facilities of our organization to try to resolve the cause of these deaths."

The union offered a $50,000 reward for information leading to the arrest and conviction of the person or persons responsible for the murders. Secretary of Labor George P. Shultz announced a "full-scale investigation," explaining that the union's request removed any "legal impediments to immediate investigation" of alleged election irregularities under the Landrum-Griffin Act. Before Mr. Yablonski's death, Secretary Shultz had taken the position that all internal appeal remedies provided by the union's constitution must be exhausted before the Labor Department could investigate.

On January 21, the Federal Bureau of Investigation announced the arrest of three Cleveland-area residents in connection with the Yablonski murders. On January 29, the suspects were indicted by a Federal grand jury for plotting to kill Mr. Yablonski.

Construction

After conflicts, demonstrations, and lengthy negotiations,[2] a job-training pact was signed between Chicago's building trade unions and leaders of the city's black community. The agreement, which was signed by 11 representatives of various black organizations and representatives of the Building Trades Council and the Building Construction Employers' Association, was expected to bring 4,000 area Negroes into building trades jobs. Under the pact, signed on January 12, the construction industry would provide 1,000 jobs immediately to qualified black journeymen. The remaining jobs would be filled by placing 3,000 Negroes in apprentice or special accelerated on-the-job training. (Of these 3,000, 1,000 would start on-the-job training as quickly as possible, another thousand would begin journeyman training to full rating as skilled workers, and the final thousand were to be given special preapprentice training to qualify them for basic construction skills.)

Union representatives also agreed to make black representation in the 90,000-man Chicago area skilled construction force "at least proportionate to their percentage in the community at large" within the next 5 years. Although at least one third of Chicago's population is black, the U.S. Department of Labor estimates that only about 3 percent of Chicago's skilled building trades workers are members of minority groups.

Chicago Mayor Richard J. Dailey, after signing the agreement, said it recognized "completely the opportunity of all young men to participate in the building industry." The plan was to be administered by a committee consisting of two members each from the contractors, the unions, and the Coalition for United Community Action, representing black organizations. Mayor Daley was named as the seventh member. The Reverend C. T. Vivian, chairman of the Coalition, praised the plan, saying, "It will open the seventies to a myriad of possibilities for the black community."

The Construction Industry Collective Bargaining Commission, established by President Nixon last September,[3] has recommended that union members surrender their right to ratify labor agreements and give elected bargaining teams "binding authority" to negotiate labor contracts. The proposal was 1 of 9 approved by the 12-member commission, which consists of four members each from Government, contractors' associations, and building trades unions, and is headed by Secretary

of Labor Shultz. The recommendations were designed to permit national officials of building trades unions to impose tighter discipline over local unions and the construction industry's highly decentralized bargaining procedure that has been blamed for recent inflationary wage settlements.

Secretary of Labor Shultz and Secretary of Commerce Maurice Stans have suggested that the Government explore the possibility of using "Federal financial incentives" to persuade building contractors to increase their wintertime construction. The recommendation is contained in a congressionally ordered report on problems of seasonal unemployment in the construction industry. The report recommends that the concept of financial incentives be examined by the Cabinet Committee on Construction established by President Nixon in September 1969.[4] Subscribing to the view that altering the tradition of concentrating construction work in the warm-weather months could serve as a damper on spiraling building costs, the report stated that "much under-utilization of manpower resources continues to exist" in the construction industry and that "seasonality is a major part of this under-utilization." With regard to financial incentives, the report said that an "ideal incentive program" would encourage consideration of the advantages of winter construction, aid in offsetting the extra costs of winter work, and discourage excess demand for labor during the summer months.

The report's other suggestions included the development of "specialized weather data and analysis" to alleviate the uncertainty of winter weather's effect on construction and the scheduling of Government construction in winter months.

In December the AFL–CIO Building and Construction Trades Department and the National Participating Contractors Employers' Associations announced the reorganization of the National Joint Board for Settlement of Jurisdictional Disputes. The parties disclosed that the Joint Board was again processing jurisdictional disputes in the construction industry, including requests for job decisions. In October, the Board was reported to be going out of business after 21 years of operation.[5]

The Builders' Association of Chicago and the Carpenters have agreed to a $2.05 wage and benefit package for the remaining 2 years of their 5-year agreement, which expires May 31, 1972. The settlement, which covers 23,000 workers, is expected to set a pattern for 1970 settlements for 53,000 other construction workers in the Chicago area.

Transportation

In New York City, a New Year's Day settlement between the Metropolitan Transit Authority (MTA) and two unions[6] averted a citywide subway and bus strike. The cost of the package (reported at $120 million over the 2-year term) led the Authority to raise fares to 30 cents, from 20 cents.

Increased take-home pay was a paramount issue in the current round of negotiations. Wage rates in the contract were boosted 8 percent on January 1, 1970, and another 10 percent on July 1, 1971. In addition, the MTA will assume employee pension contributions (currently about 5 percent of gross pay), making the plan noncontributory and fattening paychecks. The MTA will contribute an additional $100 a year per employee for welfare benefits such as a dental, optical, and prescription drug plan. Other terms included 4 weeks' vacation after 3 instead of 5 years of service, improved sick leave, and improved pensions for Manhattan and Bronx Surface Transit Operating Authority employees.

About 15,000 mechanics and other ground service employees were affected by a mid-January settlement between Trans World Airlines, Inc., and the Machinists. The 3-year pact raised the mechanics' hourly rate to $5.65 by May 1, 1971, from $4.14. The contract also provided for a maximum of 21 cents in cost-of-living escalator increases, compared with a maximum of 6 cents under the previous agreement, for adoption of a dental plan, and for improvements in other supplementary benefits.

Apparel

About 80,000 dress workers in eight eastern States[7] were affected by a mid-January settlement between the International Ladies Garment Workers Union and five jobbers' and manufacturers' associations.[8] The contract provided wage increases of 10 percent effective February 15, 1970, and 5 percent effective February 1 of both 1971 and 1972. The minimum rates for all crafts were

increased by at least the same percentages and the union retained the right to seek an additional wage increase during the contract term, depending on the rise in the cost of living. An additional paid holiday, the birthday of the Reverend Martin Luther King, Jr., brought the total to 8½; the employers agreed to pay an amount equal to 2 percent of wages to finance a third week of vacation pay and to increase their contributions to the union's National Retirement Fund to 5 percent of the payroll, from 4½ percent. The agreement was expected to influence contracts to be negotiated in 1970 for an additional 100,000 members of the union in various lines of apparel.

Teachers

The drive to form a single national teachers' organization advanced in January, when two teachers' unions in Los Angeles announced an agreement to merge. Currently the Los Angeles Association of Classroom Teachers, an affiliate of the National Education Association (NEA), represents 19,000 of the city's 25,000 classroom teachers, and the American Federation of Teachers (AFT) unit, local 1021, has 3,000 members. The new union, the United Teachers–Los Angeles, will be affiliated with both the NEA and the AFT and members will be given the option of joining either national organization. Robert Ransom, president of the Los Angeles Association of Classroom Teachers, will become president of the United Teachers and Larry Sibelman, head of AFT local 1021, will be executive vice-president. The merger agreement, which is subject to ratification by the members, is scheduled to go into effect on February 1. In October 1969, the NEA and AFT affiliates in Flint, Mich., effected a similar merger, the first consolidation of units of the two national organizations.[9]

Government

In early January, New York Governor Nelson Rockefeller and the Civil Service Employees Association reached agreement on a 2-year contract for 133,000 State employees. Salaries will be increased 7.5 percent in the first year in two steps—minimum increases of $500 effective April 1, 1970, and $250 effective October 1, 1970. Effective April 1, 1971, the beginning of the second year, salaries will be further increased by 6.5 percent, with a minimum increase of $525. Health insurance and retirement benefits were also improved. More than 90 percent of State workers were covered by the agreement, which was subject to approval by union members and the legislature. Negotiations were continuing with the State, County and Municipal Employees Union, which represents 7,600 employees.

The minimum wage for about 2.1 million workers who were covered for the first time by the 1966 amendments to the Fair Labor Standards Act of 1938 rose to $1.45 an hour, from $1.30, effective February 1, 1970. These workers are employed mainly by small retail and service establishments, drycleaners, laundries, hotels, motels, restaurants, schools, non-Federal hospitals and nursing homes. On February 1, 1971, the minimum wage for these employees will climb to $1.60 an hour, matching the minimum already in effect for more than 35 million other workers in occupations that were subject to the law prior to the 1966 amendments.

Federal District Judge John A. Field, Jr., has upheld the dismissal of 20 West Virginia State Road Commission workers by Governor Arch A. Moore, Jr. The 20 workers were among 3,307 strikers who lost their jobs in March 1969 after they refused to return to work to deal with a snowstorm. They had filed suit asking reinstatement of all the dismissed employees and $250,000 in damages. Judge Field held that the men's "misconduct" in refusing to return to work negated their petition claiming that their rights to procedural due process had been abridged. He added that although several Federal courts had upheld the right of public employees to join unions, none had sanctioned the right to strike or to engage in collective bargaining.

The dispute began when some 4,000 employees of the State Road Commission attempted to get newly elected Governor Moore to recognize the Laborers Union as their bargaining agent and to grant them seniority and job security rights. Under the State's spoils system, the workers would ordinarily have lost their jobs to Republicans, since the previous administrations (dating back to 1960) were Democratic. The workers struck on March 3 following Governor Moore's refusal to bargain; only 600 of the workers returned to work in response to the Governor's

offer of amnesty to those who would resume work and clear the roads.[10]

Pollution

The Nation's increasing concern with pollution seemed destined to become an issue in collective bargaining as Auto Workers' President Walter P. Reuther told a press conference that the problem had become so serious "that we feel obligated to raise this matter at the bargaining table." (The UAW's contracts with the "Big Three" auto makers and several agricultural implement companies expire in the fall of 1970.) The UAW leader did not describe what form the union's proposals on pollution control might take, and he conceded that "every time we've tried to introduce something that's on the fringe of traditional bargaining subjects, we've raised all kinds of problems." Nevertheless, he contended that "the situation has worsened to the point where we have to raise the issue," maintaining that pollution is a proper bargaining issue because it poses a threat to the welfare of the union's members.

White-collar salaries

Salaries for white-collar workers rose a record amount during the year ending June 1969, according to preliminary results of the ninth annual National Survey of Professional, Administrative, Technical, and Clerical Pay conducted by the Bureau of Labor Statistics. The average 5.7-percent rise in selected occupations compared with 5.4 percent for the year ending June 1968, 4.5 percent for the previous year, and an annual average rate of 3.1 percent for the first six survey periods. Salary gains during the year ending June 1969 included 6.2 percent for engineers, 6.5 percent for chemists, and 7.2 percent for auditors. Among the clerical occupations, gains were 5.3 percent for secretaries, 5.7 percent for typists, and 4.7 percent for accounting clerks. In the past, the survey results have been used to set salary levels for Federal employees.

Stockbroker unrest

In response to recent cuts in their commission rates [11] securities salesmen have shown increased interest in the formation of unions to protect their interests. In Detroit, salesmen in the local branch of Goodbody & Co. formed the Society of Associated Financial Executives and petitioned the National Labor Relations Board for a representation election. Salesmen in the Detroit branch offices of two other brokerage firms also filed petitions. Elsewhere, 400 members of the Chicago Association of Investment Brokers held a heated meeting during which some members suggested affiliation with the Teamsters or the AFL–CIO.

Another heated meeting occurred in New York City, where members of the Association of Investment Brokers ousted their president because of his reluctance to speak out against the commission cuts. The organization, a trade group which does not act as a collective bargaining agent, includes 850 of the estimated 15,000 brokers in the area. Another trade group, the American Association of Securities Representatives, reported that its membership had doubled to more than 1,000 during a recent 2-week period.

1969 strike statistics

Strike idleness in 1969 declined when compared to the preceding 2 years, although the past year's idleness was appreciably higher than the 1960–66 period. Idleness in 1969, a relatively light bargaining year, amounted to 0.23 percent of the estimated working time,[12] compared with 0.28 percent in 1968 and 0.25 percent in 1967. (Idleness in the 1960–66 span ranged from 0.11 to 0.15 percent, a long-term decline from the 1959 figure of 0.50 percent, which reflected the 116-day basic steel strike that ended in January 1960.) The number of stoppages beginning in 1969 reached an all-time high of 5,600, compared to 5,045 in 1968 and 4,595 in 1967, but the walkouts involved only 2.5 million in 1969, compared with 2.6 million in 1968 and 2.9 million in the prior year. Significant strikes during 1969 included one by 49,000 Oil, Chemical, and Atomic Workers against major petroleum companies that lasted 158 days; a 24-day walkout by 46,000 soft coal miners; and construction industry stoppages in several cities, including Kansas City, Mo. (119 days and 37,000 workers), Houston, Galveston, and Texas City, Tex. (79 days and 15,000 workers), Los Angeles, Calif. (38 days and 30,000 workers), and St. Louis, Mo. (84 days and 20,000 workers).

The most significant strike in 1969 was a walkout against the General Electric Co. by 147,000

members of a 14-union coalition. The strike against the Nation's fourth largest manufacturing firm, which began on October 26, was marked by a nationwide boycott campaign against GE products. The settlement could presage not only the package cost of subsequent settlements in 1970—a heavy bargaining year which began during a continuing inflationary period—but also the success of the "coalition" approach to bargaining. In addition, the strike provided another test of GE's famed "Boulwarism" bargaining approach.[13]

Earnings Index

The Bureau's index of average hourly earnings (excluding overtime and the effect of interindustry employment shifts) of production workers in manufacturing rose 0.7 in October to 150.2. Data for prior periods are shown below.

1968	Index (1957–59=100)	1969	Index (1957–59=100)
October	141.7	January	144.4
November	142.6	February	144.9
December	143.6	March	145.2
		April	146.0
		May	146.6
		June	146.9
		July	147.8
		August	148.4
		September	149.5
		October	150.2
Annual averages:			
1967	131.5		
1968	139.5		

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

Statistical summaries

The following tabulation summarizes various preliminary measures of compensation in 1969 and earlier years.

Type of measure	Annual rate of increase in percent			
	1969	1968	1967	1966
Major collective bargaining settlements:				
First-year wage rate adjustment [1]	8.2	7.2	5.6	4.8
Wage rate changes over life of contract [1]	7.1	5.2	5.0	3.9
Wages and benefits combined (equal timing) [2]	7.4	6.0	5.2	[3] 4.0
Wages and benefits combined (time weighted) [2]	8.2	6.6	[3] 5.5	[3] 4.7
Aggregate measures: [4]				
Total compensation per man-hour, all employees, private nonfarm economy	6.3	8.1	5.5	6.3
Average hourly earnings, production or nonsupervisory workers, private nonfarm economy	6.9	7.0	4.5	4.9

[1] Covers settlements affecting 1,000 workers or more.

[2] Limited to settlements for 5,000 workers or more. Equal timing assumes a uniform spacing of wage and benefit changes over the life of the contract; time weighted weighs each change by the time it will be in effect during the contract term.

[3] Revised.

[4] Data measure changes from fourth quarter of prior year to fourth quarter of current year.

———*FOOTNOTES*———

[1] See *Monthly Labor Review*, February 1970, p, 72.

[2] See *Monthly Labor Review*, November 1969, pp. 73–74, for earlier developments.

[3] See *Monthly Labor Review*, November 1969, p. 72.

[4] Ibid.

[5] See *Monthly Labor Review*, December 1969, p. 68.

[6] The Metropolitan Transit Authority, a State agency, is the parent body for the New York City Transit Authority and the Manhattan and Bronx Surface Transit Operating Authority. The unions are the Transport Workers (33,000 workers) and the Amalgamated Transit Union (1,850 workers).

[7] New York, Massachusetts, Pennsylvania, New Jersey, Connecticut, Rhode Island, Delaware, and Maryland.

[8] Affiliated Dress Manufacturers, Inc., National Dress Manufacturers Association, Inc., Popular Priced Dress Manufacturers Group, Inc., Popular Price Dress Contractors Association, Inc., and United Better Dress Manufacturers Association, Inc.

[9] See *Monthly Labor Review*, December 1969, p. 71.

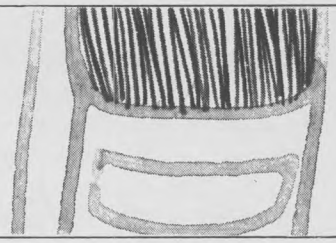
[10] See *Monthly Labor Review*, June 1969, p. 73.

[11] See *Monthly Labor Review*, February 1970, p. 75.

[12] Data for 1969 are preliminary.

[13] See *Monthly Labor Review*, December 1969, pp. 71–72, for a description of the strike.

Book Reviews and Notes



Transformation of labor policy

A History of the American Worker, 1933–1941: Turbulent Years. By Irving Bernstein. Boston, Mass., Houghton Mifflin Co., 1970. 873 pp. $12.95.

This is the second volume of a trilogy by Professor Bernstein on American labor conditions and unionization in the period between the two world wars. *The Lean Years* (1961) covered both subjects from 1920 to the depth of the depression in 1933. The present volume deals only with the remarkable transformation of public policy on unionization and collective bargaining, and, partly in consequence, the great upsurge in union organization, that occurred over the years 1933–41. A third volume will consider working class conditions during this latter period.

In *Turbulent Years*, Professor Bernstein has produced an impressive contribution to labor history. It reflects an immense amount of research into primary source materials, and undoubtedly will serve for many years as a major reference to the events of the period. Moreover, it is a pleasure to read. The writing is simple yet vivid, and the narrative is interspersed with brief and frequently pungent biographical sketches of the leading government, business, and labor actors in the union drama.

In the history of union organization and collective bargaining, the 1930's separate one era from another. The large increase in union strength was more than quantitative, for it reflected a change in the skill composition of union membership, decisive alteration in the structural characteristics of the trade union movement, and the extension of collective bargaining to many key sectors of the economy. These developments were importantly influenced by the emergence through legislation, court decisions, and administrative actions of a national labor policy that removed barriers to union growth and imposed upon employers the duty to bargain with representative unions. In the process, the essentially negative attitude of the trade union movement toward government and politics was profoundly altered. At the same time, a substantial measure of continuity with the past was preserved, notably in the concentration of union effort on improvement in terms and conditions of employment at the work place through that outstanding social invention, the written collective bargaining agreement.

The leading labor events of the 1930's are familiar—section 7(a) of the National Industrial Recovery Act and the immediate (1933) upsurge of organization among the coal miners and garment workers, and the efforts at organization among workers in many other basic industries; the development of labor policy under the NIRA; the labor eruptions in 1934 in Toledo (Auto-Lite), Minneapolis (Teamsters), West Coast longshoring, and the textile industry; the invalidation of the NIRA by the Supreme Court; the passage of the National Labor Relations Act; the battle within the AFL over the form of organization in the mass production industries; the founding of the CIO and the split in the labor movement; the great organizing campaigns in steel, automobiles, rubber, and other industries; the critical court decisions on the NLRA; the work during its formative years of the National Labor Relations Board; and the early and abortive attempts at reunification of the labor movement.

All of this, and more, is in Professor Bernstein's book. He does a splendid job of evocation; the issues, struggles, passions, and personalities of these extraordinary years come alive. The great but judicious use of detail serves to clarify rather than obscure the underlying factors at work in the transformation of national labor policy and of the trade unions movement.

There undoubtedly will be disagreement with

some of Professor Bernstein's interpretations and appraisals of particular events and personalities; this is a hazard no historian can escape. Three rather general reservations will be recorded here. First, in the conflict over the form of organization for the mass-production industries, craft union leadership in the AFL inevitably emerges as the villain of the piece. Now one can argue persuasively that industrial unionism in such industries is the most effective form of organization for the workers concerned, and indeed for management as well, and that in the circumstances of the 1930's only industrial unionism could have overcome the fierce employer opposition to any form of unionization. But it was not the only conceivable form of viable organization—witness the British automobile industry and, even in this country, the special status that the UAW has been forced to accord to the skilled trades.

Second, apart from the issue of structure, there is a tendency generally to downgrade the role of the AFL. For example, Professor Bernstein writes that "Even a reluctant AFL came to recognize this [the use of NLRB representation procedure] to its advantage, *gradually learning to organize the worker rather than the employer*" (p. 653, italics supplied). If this statement means that historically the AFL had sought to organize workers from above, it flies in the face of half a century of union struggle.

Third, and this is perhaps the most serious criticism of a history of trade unionism during the 1930's, there is no detailed accounting for the remarkable resurgence of the AFL during the latter part of the period. Most readers will be surprised to learn (on p. 774) that by 1941 the AFL, despite the loss of a million members as a result of the suspension of the CIO unions in 1936, had about twice the membership of the CIO. To the best of my knowledge, a comprehensive analysis of AFL growth during this period remains to be written.

These strictures are not intended to detract from a first-rate performance, and *Turbulent Years* is enthusiastically recommended as a major contribution to the history of the American trade union movement.

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Achieving effective social security

Social Security in International Perspective: Essays in Honor of Eveline M. Burns. Edited by Shirley Jenkins. New York, Columbia University School of Social Work, 1969, 255 pp. $9, Columbia University Press, New York.

This timely reassessment of social security policy in its broadest setting and in the light of the experience of a number of countries has been designed as a well-deserved tribute by her colleagues, coworkers, and former students to Dr. Eveline M. Burns. For 35 years, Professor Burns taught at Columbia where she not only acquainted several generations of students with the principal social problems of our time but also played a major role in the design and development of programs aimed at their solution.

The volume is particularly valuable to this reviewer because it is cast in an international framework. A perceptive introductory chapter by Dr. Burns' colleague, Professor Vera Shlakman, is the only one devoted exclusively to the thought and action of Dr. Burns herself which have been based, Dr. Shlakman says, on "a persistent, unsentimental, practical humanitarianism."

Dr. Burns has recognized that to win acceptance, American social programs must take account of our peculiar American traditions regarding the appropriate role of public and private action and the State and Federal Governments. Yet she has recognized that whatever compromises might have to be made at early stages, fragmentation of responsibility—all too characteristic of American social programs—denies full, or even adequate, benefits to those who are supposed to be helped. She has emphasized that the United States, probably more than any other country, has the resources and the capacity to achieve a decent and dignified social security system.

That we are a long way from that goal is evident from the papers on social security and public assistance by Ida Merriam and on health programs by Herman Somers. These gaps stand out all the more when our programs are contrasted with those in other countries, as they are described in the ensuing chapters on social security in five countries—Canada, Denmark, Britain, France, and India. Our grudging and all too slow recognition of the most urgent needs for decent incomes and health care for all marks our social attitudes

as backward as compared with most other Western industrialized countries. The chapters on foreign experience make it abundantly clear that the method of applying social security principles has been as controversial abroad as in the United States but acceptance of the principles themselves has not been.

In a concluding chapter, Professor Alfred J. Kahn, another of Dr. Burns' associates, raises a fundamental question which will have to be faced more and more in the framing of social policy. "Are we largely concerned with meeting the needs of individuals or with accomplishing clear, urgent public purposes? Fortunately these are not mutually exclusive goals, and they are often achieved by the same instrument." They are not mutually exclusive goals but unfortunately they are often thought to be. Neat solutions tend to be preferred to less tidy approaches aimed first and foremost at meeting the requirements of individuals. This is a danger which will have to be avoided if social security programs are to give effective protections to those who need them.

—Bert Seidman
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AFL–CIO

East and West work values

The Japanese Employee. Edited by Robert J. Ballon. Tokyo, Sophia University, 1969. 317 pp. $8, Charles E. Tuttle Co., Rutland, Vt.

Sophia University, a Jesuit institution in Tokyo with an international faculty, has issued a number of useful studies of Japanese management and industrial relations. A principal objective has been to explain Japanese ways to American businessmen and American ways to the Japanese. The most recent volume continues this effort with a collection of 12 essays, 5 by Japanese contributors, and 7 by non-Japanese. The subject matter ranges from generalizations about national psychology to detailed studies of labor costs. Father Ballon has also compiled a handy statistical appendix.

Foreign observers tend to emphasize how different Japan's ways are from those of the West, and how persistent their traditional practices. The Japanese, for their part, like to think of themselves as a part of the modern world and do not much appreciate being the objects of anthropological investigation. These clashing viewpoints were conspicuous in an earlier collection of papers, entitled "The Changing Patterns of Industrial Relations," which the Japan Institute of Labor issued in 1965.

In the present collection, the clash is less in evidence. The non-Japanese contributors continue to emphasize the persistent peculiarities, but their Japanese colleagues seem inclined to concur. The pattern of industrial relations, they agree, is not changing very fast. Professor Sakurabayashi concludes, "The Japanese economic situation, like any other, is changing, but the human relations in Japanese industry as found in labor unions and management alike seem to be its most conservative components."

Three of the persisting peculiarities are outstanding. One is the system of lifetime employment, whereby the large firms employ young people upon the completion of their education, not to fill any particular vacancy, but to serve the company in a variety of capacities during the entire course of their working life. Second is the complex wage system, based much more on the education, seniority, and personal needs of the worker than on the type, quality, and amount of work performed. Third is the pattern of "enterprise unionism"—collective bargaining takes place at the company level, with little attempt being made to establish nationwide pay standards for an industry or an occupation.

In the last chapter, Professor Hirono turns the tables and comments on the strange practices which American businessmen have tried to import into Japan. These, he finds, stem from such concepts as functionalism, "job-centricity," specialization, and, above all, individualism. Most Japanese employees are upset by these practices, but a maverick minority, especially among ambitious specialists, finds a more congenial atmosphere in American firms. Some American companies have insisted on following American practices in Japan, while others have tried to combine the two systems. Although the latter course sounds preferable in theory, it is by no means easy, as the contributors point out, to realize in practice, because of the underlying differences in values and worker motivation in the two countries.

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Community action analysis

Employment and Educational Services in the Mobilization for Youth Experience. Edited by Harold H. Weissman. New York, Association Press, 1969. 224 pp. $2.95.

This is one of four volumes summarizing and evaluating the experimental programs established and conducted by the "Mobilization for Youth" project. This massive community-based delinquency control program, on the lower East Side of New York City, was funded directly by the President's Committee on Juvenile Delinquency (headed by Robert F. Kennedy) and operated between 1962 and 1968. The present volume is a most valuable little book, well-written and lucid, informative and suggestive.

The Editor's Preface describes the accounts in this and the companion volumes as "an intellectual history of a project which in all likelihood represents a watershed in the development of social welfare in America," and conscious emphasis is placed on the lessons learned, rather than on exhaustive reporting or on the vindication of agency performance. An introduction written by Henry Heifetz, one of the coauthors (most of them drawn from MFY's Program Reporting Department, and all staff members of the agency) sets the stage with a colorful account of the Lower East Side's role, over the past 120 years, as the habitat of successive immigrant groups down to the wave of immigrants from Puerto Rico in the 1960's. A profile of the MFY area proper is given, and its nature summed up as a slum in the process of developing from being only "a disorderly mechanism for human destruction" into a more developed version wherein it takes on the character of a minority neighborhood while retaining the same destructive qualities. A few statistical breakdowns of the population served by MFY and information on sponsors, funding agencies, directors, and participants in the venture adroitly introduce to the reader *dramatis personae*.

Part I of the book is devoted to "Employment Opportunities," Part II to "Educational Opportunities." Each starts with an "overview" setting out the tasks, the problems, the possible, often conflicting or competing, approaches that could be taken, and the choices made. Subsequent chapters deal with the component programs in the two areas, the last in each area attempting an appraisal of the outcome.

Although the beginning and ending chapters, as well as several others, were authored or coauthored by the editor, the two parts of the book tell not only a different story, but they tell it differently. Part I is matter-of-fact with the problems of preparing, placing, and keeping disadvantaged minority youngsters gainfully employed. While it unveils no magic formula, it relates many insights and practical findings that either were put to use (the Neighborhood Youth Corps) or constitute a case for needed reforms, notably in the area of vocational education. (To some readers, including this reviewer, these lessons may have even more far-reaching implications, such as the need for a full-blown national youth service.)

Part II, by contrast, not only relates a sad story of abortive conflict leaving us hardly any wiser (except in respect of what not to do), but—perhaps imperceptibly to the writers—reveals a certain ideological and doctrinaire bent that may in part account for this failure.

Thus, from a future vantage point, the editor's notion of a "watershed" may possibly appear justified in respect to the employment opportunities programs; in the educational opportunities programs, alas, it seems a long way off.

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Current Labor Statistics

Employment and unemployment—household data

Nonagricultural employment—payroll data

Labor turnover rates

Hours and earnings—private nonagricultural payrolls

Consumer prices

Wholesale prices

Labor-management disputes

Productivity

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

[In thousands]

Year	Total noninstitutional population	Total labor force		Civilian labor force						
		Number	Percent of population	Total	Employed			Unemployed		Not in labor force
					Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
1947	103,418	60,941	58.9	59,350	57,039	7,891	49,148	2,311	3.9	42,477
1948	104,527	62,080	59.4	60,621	58,344	7,629	50,713	2,276	3.8	42,447
1949	105,611	62,903	59.6	61,286	57,649	7,656	49,990	3,637	5.9	42,708
1950	106,645	63,858	59.9	62,208	58,920	7,160	51,760	3,288	5.3	42,787
1951	107,721	65,117	60.4	62,017	59,962	6,726	53,239	2,055	3.3	42,604
1952	108,823	65,730	60.4	62,138	60,254	6,501	53,753	1,883	3.0	43,093
1953	110,601	66,560	60.2	63,015	61,181	6,261	54,922	1,834	2.9	44,041
1954	111,671	66,993	60.0	63,643	60,110	6,206	53,903	3,532	5.5	44,678
1955	112,732	68,072	60.4	65,023	62,171	6,449	55,724	2,852	4.4	44,660
1956	113,811	69,409	61.0	66,552	63,802	6,283	57,517	2,750	4.1	44,402
1957	115,065	69,729	60.6	66,929	64,071	5,947	58,123	2,859	4.3	45,336
1958	116,363	70,275	60.4	67,639	63,036	5,586	57,450	4,602	6.8	46,088
1959	117,881	70,921	60.2	68,369	64,630	5,565	59,065	3.740	5.5	46,960
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
1961	121,343	73,031	60.2	70,459	65,746	5,200	60,546	4,714	6.7	48,312
1962	122,981	73,442	59.7	70,614	66,702	4,944	61,759	3,911	5.5	49,539
1963	125,154	74,571	59.6	71,833	67,762	4,687	63,076	4,070	5.7	50,583
1964	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394
1965	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058
1966	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288
1967	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527
1968	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291
1969	137,841	84,239	61.1	80,733	77,902	3,606	74,296	2,831	3.5	53,602

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

[In thousands]

Characteristic	1969				1968				1967				1966	Annual average	
	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	1969	1968
WHITE															
Civilian labor force	72,475	71,942	71,466	71,285	70,392	70,045	69,851	69,587	69,440	68,944	68,210	68,226	67,951	71,778	69,975
Men, 20 years and over	41,956	41,842	41,639	41,656	41,423	41,373	41,235	41,230	41,175	40,972	40,673	40,607	40,373	41,772	41,317
Women, 20 years and over	24,156	23,949	23,684	23,566	23,122	22,843	22,741	22,565	22,632	22,276	21,775	21,709	21,638	23,838	22,820
Both sexes, 16–19 years	6,363	6,151	6,143	6,036	5,847	5,829	5,875	5,792	5,633	5,696	5,762	5,910	5,940	6,168	5,838
Employed	70,096	69,575	69,260	69,135	68,267	67,804	67,617	67,311	67,032	66,576	65,888	65,970	65,747	69,518	67,750
Men, 20 years and over	41,091	40,995	40,871	40,926	40,677	40,553	40,405	40,376	40,300	40,101	39,772	39,775	39,524	40,978	40,503
Women, 20 years and over	23,327	23,120	22,891	22,794	22,372	22,066	21,987	21,777	21,766	21,416	20,963	20,902	20,921	23,032	22,052
Both sexes, 16–19 years	5,678	5,460	5,498	5,415	5,218	5,185	5,225	5,158	4,966	5,059	5,153	5,293	5,302	5,508	5,195
Unemployed	2,379	2,367	2,206	2,150	2,125	2,241	2,234	2,276	2,408	2,368	2,322	2,256	2,204	2,260	2,225
Men, 20 years and over	865	847	768	730	746	820	830	854	875	871	901	832	849	794	814
Women, 20 years and over	829	829	793	772	750	777	754	788	866	860	812	807	717	806	768
Both sexes, 16–19 years	685	691	645	648	629	644	650	634	667	637	609	617	638	660	643
Unemployment rate	3.3	3.3	3.1	3.0	3.0	3.2	3.2	3.3	3.5	3.4	3.4	3.3	3.2	3.1	3.2
Men, 20 years and over	2.1	2.0	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.2	2.0	2.1	1.9	2.0
Women, 20 years and over	3.4	3.5	3.3	3.3	3.2	3.4	3.3	3.5	3.8	3.9	3.7	3.7	3.3	3.4	3.4
Both sexes, 16–19 years	10.8	11.2	10.5	10.7	10.8	11.0	11.1	10.9	11.8	11.2	10.6	10.4	10.7	10.7	11.0
NEGRO AND OTHER															
Civilian labor force	9,056	8,979	8,867	8,914	8,737	8,700	8,828	8,762	8,733	8,632	8,632	8,599	8,544	8,954	8,759
Men, 20 years and over	4,622	4,593	4,549	4,554	4,513	4,517	4,562	4,543	4,496	4,507	4,505	4,500	4,492	4,579	4,535
Women, 20 years and over	3,616	3,595	3,535	3,550	3,468	3,414	3,467	3,433	3,444	3,348	3,347	3,362	3,322	3,574	3,446
Both sexes, 16–19 years	818	791	783	810	756	769	799	786	793	777	780	737	730	801	778
Employed	8,500	8,394	8,271	8,371	8,164	8,132	8,233	8,147	8,073	8,006	7,986	7,974	7,923	8,384	8,169
Men, 20 years and over	4,445	4,416	4,382	4,397	4,335	4,349	4,388	4,351	4,305	4,328	4,303	4,299	4,268	4,410	4,356
Women, 20 years and over	3,429	3,372	3,307	3,352	3,264	3,205	3,246	3,200	3,191	3,112	3,115	3,118	3,098	3,365	3,229
Both sexes, 16–19 years	626	606	582	622	565	578	599	596	577	566	568	557	557	609	584
Unemployed	556	585	596	543	573	568	595	615	660	626	646	625	621	570	590
Men, 20 years and over	177	177	167	157	178	168	174	192	191	179	202	201	224	169	179
Women, 20 years and over	187	223	228	198	204	209	221	233	253	236	232	244	224	209	217
Both sexes, 16–19 years	192	185	201	188	191	191	200	190	216	211	212	180	173	192	194
Unemployment rate	6.1	6.5	6.7	6.1	6.6	6.5	6.7	7.0	7.6	7.3	7.5	7.3	7.3	6.4	6.7
Men, 20 years and over	3.8	3.9	3.7	3.4	3.9	3.7	3.8	4.2	4.2	4.0	4.5	4.5	5.0	3.7	3.9
Women, 20 years and over	5.2	6.2	6.4	5.6	5.9	6.1	6.4	6.8	7.3	7.0	6.9	7.3	6.7	5.8	6.3
Both sexes, 16–19 years	23.5	23.4	25.7	23.2	25.3	24.8	25.0	24.2	27.2	27.2	27.2	24.4	23.7	24.0	24.9

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

[In thousands—not seasonally adjusted]

Employment status	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
FULL TIME															
Civilian labor force	68,869	69,204	69,296	69,491	70,350	73,713	73,514	72,365	67,818	67,921	67,799	67,700	67,233	69,700	68,332
Employed:															
Full-time schedules [1]	64,155	65,302	65,517	65,594	66,206	68,854	68,471	67,011	64,346	64,244	63,778	63,588	63,126	65,503	64,225
Part-time for economic reasons	2,135	1,998	1,916	1,955	2,069	2,607	2,456	2,522	1,672	1,704	1,961	1,906	1,897	2,055	1,970
Unemployed, looking for full-time work	2,579	1,904	1,864	1,942	2,075	2,251	2,587	2,831	1,799	1,973	2,060	2,206	2,211	2,142	2,138
Unemployment rate	3.7	2.8	2.7	2.8	2.9	3.1	3.5	3.9	2.7	2.9	3.0	3.3	3.3	3.1	3.1
PART TIME															
Civilian labor force	11,850	12,212	12,131	12,019	10,634	8,803	9,283	9,991	11,745	11,699	11,467	11,404	11,000	11,032	10,405
Employed (voluntary part-time)	11,023	11,488	11,284	11,122	9,751	8,185	8,688	9,422	11,245	11,130	10,781	10,687	10,335	10,343	9,726
Unemployed, looking for part-time work	827	724	847	898	883	618	594	568	500	569	686	717	665	689	679
Unemployment rate	7.0	5.9	7.0	7.5	8.3	7.0	6.4	5.7	4.3	4.9	6.0	6.3	6.0	6.2	6.5

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

4. Employment and unemployment, by age and sex, seasonally adjusted

[In thousands]

Employment status	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
TOTAL															
Total labor force	85,599	85,023	84,872	85,051	84,868	84,517	84,310	84,028	83,652	83,950	83,883	83,674	83,233	84,239	82,272
Civilian labor force	82,213	81,583	81,379	81,523	81,325	80,987	80,789	80,504	80,130	80,434	80,379	80,199	79,756	80,733	78,737
Employed	79,041	78,737	78,528	78,445	78,194	78,142	77,931	77,741	77,321	77,589	77,650	77,524	77,081	77,902	75,920
Agriculture	3,426	3,435	3,434	3,446	3,498	3,614	3,561	3,683	3,777	3,661	3,710	3,836	3,717	3,606	3,817
Nonagriculture	75,615	75,302	75,094	74,999	74,696	74,528	74,370	74,058	73,544	73,928	73,940	73,688	73,364	74,296	72,103
Unemployed	3,172	2,846	2,851	3,078	3,131	2,845	2,858	2,763	2,809	2,845	2,729	2,675	2,675	2,831	2,817
MEN, 20 YEARS AND OVER															
Total labor force	49,736	49,534	49,544	49,642	49,642	49,488	49,405	49,334	49,290	49,294	49,336	49,259	49,155	49,406	48,834
Civilian labor force	46,826	46,578	46,531	46,599	46,586	46,443	46,338	46,236	46,194	46,203	46,255	46,203	46,097	46,351	45,852
Employed	45,674	45,553	45,533	45,511	45,465	45,485	45,335	45,303	45,251	45,282	45,374	45,323	45,194	45,388	44,859
Agriculture	2,473	2,499	2,482	2,575	2,593	2,670	2,646	2 676	2,713	2,678	2,701	2,720	2,686	2,636	2,816
Nonagriculture	43,201	43,054	43,051	42,936	42,872	42,815	42,689	42,627	42,538	42,604	42,673	42,603	42,508	42,752	42,043
Unemployed	1,152	1,025	998	1,088	1,121	958	1,003	933	943	921	881	880	903	963	993
WOMEN, 20 YEARS AND OVER															
Civilian labor force	28,073	27,875	27,671	27,767	27,634	27,664	27,524	27,341	27,055	27,227	27,192	27,178	26,904	27,413	26,266
Employed	27,060	26,897	26,663	26,699	26,543	26 626	26,512	26 322	26,041	26,193	26,216	26,200	25,942	26,397	25,281
Agriculture	586	585	555	554	535	582	547	610	622	607	626	718	660	593	606
Nonagriculture	26,474	26,312	26,108	26,145	26,008	26,044	25,965	25,712	25,419	25,586	25,590	25,482	25,282	25,804	24,675
Unemployed	1,013	978	1,008	1,068	1,091	1,038	1,012	1,019	1,014	1,034	976	978	962	1,015	985
BOTH SEXES, 16-19 YEARS															
Civilian labor force	7,314	7,130	7,177	7,157	7,105	6,880	6,927	6,927	6,881	7,004	6,932	6,818	6,755	6,970	6,618
Employed	6,307	6,287	6,332	6,235	6,186	6,031	6,084	6,116	6,029	6,114	6,060	6,001	5,945	6,117	5,780
Agriculture	367	351	397	317	370	362	368	397	442	376	383	398	371	377	394
Nonagriculture	5,940	5,936	5,935	5,918	5,816	5,669	5,716	5,719	5,587	5,738	5,677	5,603	5,574	5,739	5,385
Unemployed	1,007	843	845	922	919	849	843	811	852	890	872	817	810	853	839

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

Characteristic	1969				1968				1967				1966	Annual average	
	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	1969	1968
EMPLOYMENT (in thousands)	78,570	78,090,	77,550	77,418	76,409	76,017	75,898	75,392	75,121	74,630	73,911	73,862	73,648	77,902	75,921
White-collar workers	37,509	36,923	36,677	36,264	35,906	35,732	35,419	35,140	34,888	34,456	33,943	33,635	33,693	36,845	35,551
Professional and technical	10,936	10,764	10,740	10,638	10,473	10,392	10,295	10,142	10,067	9,952	9,761	9,734	9,605	10,769	10,325
Managers, officials, and proprietors	8,141	7,970	7,993	7,841	7,897	7,827	7,661	7,716	7,633	7,630	7,453	7,261	7,429	7,987	7,776
Clerical workers	13,655	13,478	13,281	13,171	12,876	12,823	12,816	12,694	12,624	12,343	12,250	12,115	12,158	13,397	12,803
Sales workers	4,777	4,711	4,663	4,614	4,660	4,690	4,647	4,588	4,564	4,531	4,479	4,525	4,501	4,692	4,647
Blue-collar workers	28,389	28,425	27,931	28,202	27,774	27,491	27,513	27,297	27,279	27,343	27,175	27,240	26,963	28,237	27,525
Craftsmen and foremen	10,265	10,174	10,044	10,298	10,147	9,972	10,003	9,936	9,827	9,790	9,853	9,918	9,700	10,193	10,015
Operatives	14,412	14,589	14,208	14,264	14,051	13,911	13,956	13,896	13,918	13,999	13,787	13,822	13,831	14,372	13,955
Nonfarm laborers	3,712	3,662	3,679	3,640	3,576	3,608	3,554	3,465	3,534	3,554	3,535	3,500	3,432	3,672	3,555
Service workers	9,589	9,493	9,467	9,558	9,411	9,385	9,395	9,337	9,330	9,277	9,276	9,418	9,405	9,528	9,381
Farmworkers	3,089	3,231	3,417	3,438	3,346	3,400	3,507	3,649	3,654	3,556	3,448	3,584	3,612	3,292	3,464
Unemployment rate	3.6	3.6	3.5	3.4	3.4	3.6	3.6	3.7	3.9	3.9	3.9	3.8	3.7	3.5	3.6
White-collar workers	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.2	2.2	2.0	2.1	2.0	2.1	2.0
Professional and technical	1.5	1.4	1.3	1.1	1.2	1.3	1.2	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.2
Managers, officials, and proprietors	.9	1.0	.9	.9	1.0	1.1	.9	.9	1.0	.9	.9	.9	.8	.9	1.0
Clerical workers	3.2	3.2	2.8	2.9	2.8	2.9	3.0	3.1	3.4	3.3	2.8	3.0	3.0	3.0	3.0
Sales workers	2.8	3.0	2.9	2.9	2.8	2.6	2.7	3.0	3.2	3.6	2.9	3.2	2.4	2.9	2.8
Blue-collar workers	4.3	4.0	3.8	3.7	3.8	4.2	4.0	4.4	4.5	4.5	4.6	4.2	4.1	3.9	4.1
Craftsmen and foremen	2.2	2.2	2.1	2.1	2.2	2.4	2.4	2.5	2.5	2.3	2.8	2.3	2.8	2.2	2.4
Operatives	5.0	4.4	4.3	4.1	4.3	4.5	4.3	4.8	5.1	5.1	5.0	4.7	4.2	4.4	4.5
Nonfarm laborers	6.9	7.2	6.5	6.4	6.7	7.4	7.0	7.7	7.8	7.6	8.0	7.2	7.5	6.7	7.2
Serviceworkers	3.9	4.5	4.4	4.0	4.3	4.5	4.6	4.3	4.9	4.5	4.2	4.5	4.5	4.2	4.5
Farmworkers	1.8	2.2	1.9	1.6	1.6	2.4	2.3	1.9	2.3	2.4	2.4	2.2	2.0	1.9	2.1

6. Unemployed persons, by reason for unemployment

[In thousands—not seasonally adjusted]

Reason for unemployment, age, and sex	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
Total, 16 years and over	3,406	2,628	2,710	2,839	2,958	2,869	3,182	3,400	2,299	2,542	2,746	2,923	2,876	2,831	2,817
Lost last job	1,595	1,133	939	882	823	894	979	875	892	1,088	1,186	1,245	1,266	1,017	1,070
Left last job	485	378	421	451	586	507	459	448	325	394	391	409	463	436	431
Reentered labor force	999	825	1,011	1,093	1,105	997	1,010	1,275	796	770	869	947	881	965	909
Never worked before	328	292	339	414	445	471	734	802	286	290	301	323	265	413	407
Male, 20 years and over	1,456	1,052	909	906	914	888	945	905	810	901	1,048	1,134	1,142	963	993
Lost last job	997	693	524	458	440	469	534	427	438	575	686	707	721	556	599
Left last job	197	150	141	141	209	192	170	183	148	145	139	167	179	164	167
Reentered labor force	230	188	226	267	235	200	195	262	204	164	203	232	212	216	205
Never worked before	32	20	18	40	30	24	46	33	19	17	19	28	29	27	22
Female, 20 years and over	1,086	840	994	1,097	1,202	1,119	987	1,058	867	967	964	1,061	1,031	1,015	985
Lost last job	418	303	309	314	288	310	307	336	344	374	353	394	385	335	341
Left last job	177	138	183	209	237	196	184	172	107	159	144	153	168	171	167
Reentered labor force	437	354	457	501	596	549	434	480	377	399	414	457	438	455	422
Never worked before	54	46	45	72	81	64	62	69	39	35	52	57	41	55	55
Both sexes, 16 to 19 years	864	736	807	836	842	865	1,250	1,437	623	674	734	729	703	853	839
Lost last job	180	137	106	110	95	115	138	112	110	139	147	145	160	126	130
Left last job	111	90	97	101	140	119	105	93	70	90	107	89	116	101	97
Reentered labor force	331	283	328	324	274	248	380	533	214	207	252	257	232	294	281
Never worked before	241	226	276	301	334	383	627	699	228	238	229	238	195	331	330

7. Unemployment rates, by age and sex, seasonally adjusted

Age and sex	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
TOTAL															
16 years and over	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.4	3.5	3.5	3.4	3.3	3.4	3.5	3.6
16 to 19 years	13.8	11.8	11.8	12.9	12.9	12.3	12.2	11.7	12.4	12.7	12.6	12.0	12.0	12.2	12.7
16 and 17 years	17.2	13.7	14.3	16.5	16.1	15.8	14.6	13.5	14.0	14.8	13.8	13.8	13.8	14.5	14.7
18 and 19 years	11.6	10.2	9.2	10.4	10.6	9.8	10.3	10.1	11.5	11.4	11.6	11.0	10.8	10.5	11.2
20 to 24 years	6.1	5.8	5.8	6.4	6.5	5.4	5.8	5.4	5.5	5.7	5.4	5.4	5.3	5.7	5.8
25 years and over	2.4	2.2	2.2	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.3
25 to 54 years	2.5	2.3	2.1	2.4	2.5	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.3	2.3
55 years and over	2.0	2.1	1.9	2.3	2.2	2.0	2.0	2.0	1.7	2.0	1.9	2.0	1.8	2.0	2.2
MALE															
16 years and over	3.3	2.9	2.9	3.1	3.2	2.8	2.9	2.7	2.7	2.7	2.6	2.6	2.7	2.8	2.9
16 to 19 years	12.6	11.0	11.7	11.8	12.0	11.3	11.8	10.7	11.1	11.5	11.5	11.0	11.7	11.4	11.6
16 and 17 years	14.9	13.1	13.7	14.4	15.0	15.5	14.4	13.0	13.9	13.1	13.2	13.0	13.3	13.7	13.9
18 and 19 years	10.8	9.3	8.9	9.6	9.4	7.8	9.7	8.5	9.2	10.4	10.0	9.4	10.4	9.3	9.6
20 to 24 years	6.1	5.5	5.3	6.3	6.4	4.5	5.3	4.8	4.8	4.8	4.6	4.8	5.0	5.1	5.1
25 years and over	2.0	1.8	1.7	1.9	1.8	1.7	1.7	1.6	1.7	1.6	1.6	1.5	1.6	1.7	1.8
25 to 54 years	2.0	1.7	1.4	1.8	1.8	1.6	1.7	1.5	1.7	1.6	1.5	1.4	1.6	1.6	1.7
55 years and over	2.1	2.2	1.9	2.2	2.0	2.0	1.9	1.8	1.6	1.8	1.8	1.8	1.8	1.9	2.1
FEMALE															
16 years and over	4.8	4.5	4.5	4.9	5.0	4.8	4.6	4.7	4.8	4.9	4.6	4.5	4.4	4.7	4.8
16 to 19 years	15.2	12.8	11.9	14.2	14.2	13.6	12.7	13.0	14.0	14.3	14.0	13.2	12.3	13.3	14.0
16 and 17 years	20.3	14.7	15.0	19.2	17.7	16.2	14.8	14.3	14.2	17.1	14.9	15.1	14.5	15.5	15.9
18 and 19 years	12.4	11.2	9.6	11.3	12.0	12.0	11.0	11.9	14.1	12.6	13.3	12.9	11.2	11.8	12.8
20 to 24 years	6.2	6.1	6.5	6.5	6.6	6.3	6.3	6.0	6.4	6.7	6.4	6.2	5.6	6.3	6.7
25 years and over	3.0	3.0	3.1	3.4	3.4	3.3	3.2	3.3	3.1	3.2	3.0	3.1	3.1	3.2	3.2
25 to 54 years	3.3	3.3	3.4	3.6	3.7	3.6	3.5	3.6	3.4	3.5	3.4	3.3	3.4	3.5	3.4
55 years and over	1.7	1.9	2.0	2.5	2.5	2.1	2.3	2.3	1.9	2.5	2.0	2.4	1.9	2.2	2.3

A note on revised seasonal adjustment

The household data appearing in tables 2, 4, 5, 7, 8, and 9 of 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 1970 issue of *Employment and Earnings*.

8. Unemployment indicators, seasonally adjusted

[In percent]

Selected categories	1970	1969											Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
Total (all civilian workers)	3.9	3.5	3.5	3.8	3.8	3.5	3.5	3.4	3.5	3.5	3.4	3.3	3.4	3.5	3.6
Men, 20 years and over	2.5	2.2	2.1	2.3	2.4	2.1	2.2	2.0	2.0	2.0	1.9	1.9	2.0	2.1	2.2
Women, 20 years and over	3.6	3.5	3.6	3.8	3.9	3.8	3.7	3.7	3.7	3.8	3.6	3.6	2.6	3.7	3.8
Both sexes, 16–19 years	13.8	11.8	11.8	12.9	12.9	12.3	12.2	11.7	12.4	12.7	12.6	12.0	12.0	12.2	12.7
White	3.6	3.2	3.2	3.5	3.5	3.2	3.2	3.0	3.1	3.1	3.1	3.0	3.0	3.1	3.2
Negro and other	6.3	5.7	6.2	6.6	6.7	6.4	6.5	6.8	6.4	7.0	6.1	5.9	6.2	6.4	6.7
Married men	1.8	1.7	1.5	1.6	1.7	1.5	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.6
Full-time workers	3.4	3.2	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.2	3.0	2.9	3.0	3.1	3.1
Unemployed 15 weeks and over [1]	.5	.5	.5	.4	.5	.5	.5	.5	.5	.5	.4	.4	.4	.5	.5
State insured [2]	2.5	2.4	2.4	2.2	2.2	2.1	2.2	2.1	2.0	2.1	2.1	2.2	2.1	2.1	2.2
Labor force time lost [3]	4.2	3.9	4.0	4.3	4.3	4.0	4.0	3.8	3.8	3.8	3.7	3.7	3.7	3.9	4.0
OCCUPATION															
White-collar workers	2.1	2.1	2.1	2.4	2.2	2.2	2.2	2.1	2.0	1.8	2.0	1.9	1.9	2.1	2.0
Professional and managerial	1.3	1.5	1.1	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.2	1.1
Clerical workers	3.1	2.8	3.5	3.4	3.2	3.2	3.2	3.0	2.9	2.5	3.0	2.7	2.9	3.0	3.0
Sales workers	2.8	2.6	2.2	3.5	2.8	2.9	3.2	2.8	2.9	3.1	2.9	3.2	2.7	2.9	2.8
Blue-collar workers	4.6	4.3	4.2	4.2	4.4	3.8	3.8	3.7	3.8	4.0	3.7	3.6	3.8	3.9	4.1
Craftsmen and foremen	2.3	2.3	2.1	2.4	2.6	2.1	1.9	1.9	2.3	2.2	2.2	2.1	2.1	2.2	2.4
Operatives	5.1	5.0	4.9	4.9	4.7	4.2	4.2	4.3	4.1	4.6	3.9	4.2	4.2	4.5	4.4
Nonfarm laborers	8.5	7.4	6.9	6.5	7.6	6.8	7.1	6.1	6.5	6.8	6.9	5.7	6.7	6.7	7.2
Service workers	4.5	3.6	4.0	4.2	4.8	4.5	4.3	4.4	4.2	4.5	3.9	4.0	4.2	4.2	4.5
INDUSTRY															
Nonagricultural private wage and salary workers [4]	3.9	3.6	3.6	3.8	3.9	3.5	3.5	3.5	3.5	3.5	3.4	3.3	3.4	3.5	3.6
Construction	7.1	6.0	5.4	7.3	7.4	7.0	5.9	5.1	5.7	6.0	6.1	5.6	5.6	6.0	6.9
Manufacturing	3.8	3.8	3.7	3.6	3.7	2.9	3.2	3.3	3.1	3.2	3.1	2.9	3.2	3.3	3.3
Durable goods	3.8	3.7	3.6	3.2	3.2	2.3	3.1	3.2	2.9	3.0	2.8	2.5	2.8	3.0	3.0
Nondurable goods	3.8	3.9	3.9	4.2	4.3	3.7	3.3	3.4	3.4	3.4	3.5	3.6	3.8	3.7	3.7
Transportation and public utilities	2.9	2.4	2.4	2.9	2.0	2.0	2.0	1.9	2.4	2.3	2.3	1.9	2.0	2.2	2.0
Wholesale and retail trade	4.3	3.9	3.9	4.2	4.5	4.3	4.1	4.2	4.1	4.2	3.9	4.0	3.9	4.1	4.0
Finance and service industries	3.1	2.7	3.2	3.1	3.4	3.4	3.6	3.2	3.3	3.3	3.1	3.2	3.1	3.2	3.4
Government wage and salary workers	2.2	2.0	2.1	2.4	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.7	1.8	1.9	1.8
Agricultural wage and salary workers	6.2	6.5	5.2	6.3	6.5	6.5	8.9	5.6	5.3	5.8	5.9	4.6	5.8	6.1	6.3

[1] Unemployment rate calculated as a percent of civilian labor force.
[2] Insured unemployment under State programs as a percent of average covered employment.
[3] Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.
[4] Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted

[In thousands]

Period	1970	1969											Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
Less than 5 weeks	1,756	1,515	1,558	1,882	1,756	1,646	1,656	1,578	1,720	1,711	1,625	1,461	1,507	1,629	1,594
5 to 14 weeks	914	893	912	882	995	854	824	812	639	748	777	833	767	827	810
15 weeks and over	409	392	389	363	392	385	400	385	400	381	359	351	324	375	412
15 to 26 weeks	276	272	249	233	240	250	233	255	263	246	240	238	203	242	256
27 weeks and over	133	120	140	130	152	135	167	130	137	135	119	113	121	133	156
15 weeks and over as a percent of civilian labor force	.6	.4	.4	.4	.4	.4	.4	.4	.5	.6	.6	.5	.5	.5	.5

10. Unemployment insurance and employment service operations [1]

[All items except average benefits amounts are in thousands]

Item	1969												1968
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Employment service: [2]													
New applications for work	658	711	762	801	750	874	822	850	822	745	794	849	608
Nonfarm placements	311	372	463	503	471	469	454	437	454	397	373	392	360
Rate unemployment insurance programs:													
Initial claims [3 4]	1,363	866	745	655	731	1,105	710	613	756	709	890	1,240	1,161
Insured unemployment [5] (average weekly volume) [6]	1,375	1,030	864	840	948	1,021	852	906	1,090	1300	1,459	1,491	1,172
Rate of insured un employment [7]	2.7	2.0	1.6	1.6	1.8	2.0	1.7	1.8	2.2	26	2.9	3.0	2.3
Weeks of unemployment compensated	4,692	3,054	3,156	3,104	3,496	3,626	3,123	3,519	4,496	4,998	5,159	5,547	3,896
Average weekly benefit amount for total unemployment	$47.42	$46.47	$46.25	$45.70	$46.16	$45.30	$44.88	$45.14	$46.03	$46.71	$46.80	$46.16	$45.34
Total benefits paid	$214,260	$136,585	$139,536	$136,182	$156,707	$159,161	$135,004	$152,966	$200,052	$226,516	$234,199	$246,117	$170,340
Unemployment compensation for ex-servicemen: [8 9]													
Initial claims [3 6]	39	30	29	26	27	32	26	20	22	24	27	32	29
Insured unemployment [6] (average weekly volume)	48	38	32	32	37	36	30	29	35	40	43	44	38
Weeks of unemployment compensated	193	126	127	133	148	143	114	122	155	163	169	191	151
Total benefits paid	$9,517	$6,240	$6,256	$6,514	$7,156	$6,946	$5,511	$5,847	$7,425	$7,794	$7,997	$9,046	$7,218
Unemployment compensation for Federal civilian employees: [9 10]													
Initial claims [3]	12	13	11	10	8	11	10	8	8	8	9	13	10
Insured unemployment [5] (average weekly volume)	24	22	18	17	18	19	18	17	20	23	24	24	22
Weeks of unemployment compensated	101	75	76	74	77	78	69	72	88	94	97	102	95
Total benefits paid	$4,748	$3,465	$3,494	$3,163	$3,497	$3,597	$3,155	$3,318	$4,038	$4,265	$4,362	$4,595	$4,246
Railroad unemployment insurance:													
Applications [11]	5	5	10	6	7	17	11	11	5	5	6	12	11
Insured unemployment (average weekly volume)	17	14	15	13	13	13	10	18	17	21	23	24	19
Number of payments [12]	35	28	36	28	28	26	*25	39	41	46	47	54	42
Average amount of benefit payment [13]	$96.02	$96.28	$89.31	$93.64	$94.12	$91.74	$90.69	$75.65	$88.32	$91.06	$92.20	$91.23	$87.90
Total benefit paid [14]	$3,241	$2,513	$2,918	$2,478	$2,375	$2,113	$2,043	$2,804	$3,386	$4,056	$4,251	$4,797	$3,590
All programs: [15]													
Insured unemployment [16]	1,464	1,105	929	902	1,015	1,088	911	970	1,162	1,384	1,550	1,584	1,252

[1] Includes data for Puerto Rico.
[2] Includes Guam and the Virgin Islands.
[3] Preliminary.
[4] Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transition claims under State programs.
[5] Includes interstate claims for the Virgin Islands.
[6] Number of workers reporting the completion of at least 1 week of unemployment.
[7] Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.
[8] The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.
[9] Excludes data on claims and payments made jointly with other programs.
[10] Includes the Virgin Islands.
[11] Excludes data on claims and payments made jointly with State programs.
[12] 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.
[13] Payments are for unemployment in 14-day registration periods.
[14] The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.
[15] Adjusted for recovery of overpayments and settlement of underpayments.
[16] Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act.

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

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

[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	67,860	610	3,267	19,768	4,313	14,081	3,618	10,464	3,383	10,592	11,846	2,737	9,109

[1] The industry series have been adjusted to March 1968 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to August 1969. For comparable back data, see Employment and Earnings, United States, 1909–69 (BLS Bulletin 1312–7) to be released this fall.

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

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

12. Employees on nonagricultural payrolls, by State

[In thousands]

State	Dec. 1969	Nov. 1969	Dec. 1968	State	Dec. 1969	Nov. 1969	Dec. 1968
Alabama	995.5	990.9	977.8	Montana	196.7	196.9	195.2
Alaska	82.0	83.7	76.7	Nebraska	482.2	481.1	471.8
Arizona	540.9	534.2	498.3	Nevada	191.8	193.2	181.7
Arkansas	532.5	532.4	518.0	New Hampshire	255.4	254.2	252.7
California	7,067.3	7,010.0	6,843.5	New Jersey	2,581.6	2,577.5	2,535.2
Colorado[1]	725.9	723.6	702.0	New Mexico	292.3	290.8	282.3
Connecticut	1,201.2	1,187.7	1,186.7	New York	7,226.3	7,207.7	7,141.0
Delaware	211.8	212.0	210.6	North Carolina	1,714.9	1,710.1	1,690.5
District of Columbia	683.4	680.2	681.4	North Dakota	158.8	160.0	155.6
Florida	2,092.2	2,058.5	2,029.6	Ohio	3,964.9	3,946.7	3,850.2
Georgia	1,520.5	1,514.8	1,475.4	Oklahoma	765.8	759.7	744.3
Hawaii	275.8	273.3	260.0	Oregon[1]	709.2	712.5	690.2
Idaho	201.9	201.7	196.1	Pennsylvania	4,361.0	4,349.1	4,323.4
Illinois	4,438.0	4,420.4	4,393.8	Rhode Island	347.0	343.7	350.6
Indiana	1,880.8	1,879.2	1,863.2	South Carolina	801.3	794.2	788.8
Iowa	887.5	885.6	876.4	South Dakota	172.1	172.4	168.4
Kansas	692.0	690.5	683.8	Tennessee	1,326.7	1,321.1	1,309.0
Kentucky	891.7	881.5	899.3	Texas	3,667.8	3,632.7	3,547.0
Louisiana	1,075.8	1,071.9	1,068.1	Utah	355.5	355.2	344.5
Maine	331.9	328.2	327.8	Vermont	147.3	145.7	141.7
Maryland	1,316.7	1,307.9	1,267.7	Virginia[1]	1,461.3	1,453.3	1,429.4
Massachusetts	2,264.4	2,247.4	2,250.7	Washington	1,138.4	1,137.1	1,124.2
Michigan	3,120.7	3,120.0	3,090.8	West Virginia	515.1	514.3	515.7
Minnesota	1,313.1	1,315.3	1,265.8	Wisconsin	1,539.1	1,529.2	1,509.6
Mississippi	569.6	567.4	562.3	Wyoming	105.9	106.1	101.6
Missouri	1,671.7	1,664.4	1,659.1				

[1] Revised series; not strictly comparable with previously published data.

NOTE: Data for the current month are preliminary.

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

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

[In thousands]

Industry division and group	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1968	1967
TOTAL	69,630	71,608	71,227	71,198	70,814	70,607	70,347	70,980	69,929	69,462	68,894	68,403	68,196	67,860	65,857
MINING	616	631	631	632	639	647	645	638	624	619	610	610	611	610	613
CONTRACT CONSTRUCTION	2,961	3,357	3,530	3,623	3,663	3,707	3,681	3,601	3,404	3,255	3,077	2,999	3,024	3,267	3,208
MANUFACTURING	19,810	20,063	20,143	20,339	20,421	20,435	20,114	20,336	19,982	19,952	19,978	19,891	19,803	19,768	19,447
Production workers [2]	14,414	14,656	14,732	14,918	14,997	14,971	14,665	14,923	14,624	14,604	14,644	14,584	14,509	14,505	14,308
Durable goods	11,634	11,793	11,816	11,991	12,014	11,976	11,874	12,036	11,846	11,835	11,841	11,785	11,760	11,624	11,439
Production workers [2]	8,400	8,551	8,570	8,733	8,755	8,691	8,600	8,781	8,615	8,612	8,623	8,585	8,555	8,456	8,364
Ordnance and accessories	296.8	300.3	306.0	307.7	315.1	323.4	331.7	335.3	338.7	341.2	345.5	346.8	350.3	341.5	317.2
Lumber and wood products	572.1	585.2	589.4	593.9	605.3	617.8	616.3	624.4	604.1	593.4	594.2	590.1	587.8	597.8	596.8
Furniture and fixtures	487.3	492.7	494.3	496.9	495.9	497.9	485.0	496.0	489.6	490.7	490.6	491.1	488.5	474.2	455.4
Stone, clay, and glass products	635.9	655.9	666.9	669.6	674.2	679.1	676.2	676.1	657.2	654.8	646.6	639.2	639.2	637.0	628.3
Primary metal industries	1,351.5	1,359.7	1,357.0	1,355.9	1,365.5	1,367.9	1,366.7	1,375.6	1,346.1	1,336.8	1,333.3	1,326.0	1,311.9	1,314.3	1,322.1
Fabricated metal products	1,459.3	1,472.3	1,470.9	1,468.0	1,472.5	1,461.9	1,441.7	1,469.1	1,445.5	1,441.6	1,441.1	1,435.4	1,432.5	1,393.7	1,363.1
Machinery, except electrical	2,024.0	2,021.7	2,004.2	2,011.9	2,009.7	1,999.3	2,009.3	2,025.6	2,000.9	2,007.0	2,005.2	2,002.6	1,983.4	1,960.5	1,969.6
Electrical equipment	1,962.0	1,979.2	1,981.7	2,094.9	2,083.1	2,074.2	2,047.7	2,058.7	2,035.8	2,027.7	2,025.9	2,026.1	2,019.1	1,981.9	1,958.9
Transportation equipment	1,964.4	2,010.2	2,015.2	2,054.8	2,063.8	2,023.4	1,991.0	2,053.7	2,018.9	2,037.3	2,057.8	2,037.8	2,061.3	2,028.4	1,948.5
Instruments and related products	458.3	470.1	469.4	469.2	469.8	475.7	470.9	474.1	470.3	469.6	469.3	467.1	465.0	459.9	450.8
Miscellaneous manufacturing	422.6	445.3	460.7	467.7	458.9	455.8	437.5	447.6	439.2	435.3	431.0	422.7	421.1	434.6	428.4
Nondurable goods	8,176	8,270	8,327	8,348	8,407	8,459	8,240	8,300	8,136	8,117	8,137	8,106	8,043	8,144	8,008
Production workers [2]	6,014	6,105	6,162	6,185	6,242	6,280	6,065	6,142	6,009	5,992	6,021	5,999	5,954	6,049	5,944
Food and kindred products	1,758.9	1,788.3	1,833.6	1,860.4	1,920.2	1,932.0	1,827.6	1,785.3	1,725.3	1,710.8	1,706.7	1,710.9	1,720.3	1,780.8	1,786.3
Tobacco manufactures	78.1	81.9	85.0	91.3	93.9	90.0	71.9	72.1	71.3	71.6	75.6	79.3	83.1	83.8	86.5
Textile mill products	973.7	983.0	984.4	982.3	984.7	988.1	980.7	1,000.9	984.7	988.4	992.1	990.8	987.5	990.6	958.5
Apparel and other textile products	1,388.0	1,412.7	1,423.4	1,428.6	1,427.3	1,433.3	1,375.8	1,440.1	1,419.1	1,411.2	1,426.5	1,414.7	1,397.1	1,407.9	1,397.5
Paper and allied products	723.2	728.0	724.9	720.6	722.2	726.8	719.8	725.0	707.6	703.5	707.3	706.2	703.5	692.5	679.1
Printing and publishing	1,105.1	1,109.2	1,106.3	1,100.5	1,091.6	1,091.1	1,085.4	1,085.0	1,071.1	1,077.3	1,077.0	1,073.6	1,070.1	1,063.1	1,047.8
Chemicals and allied products	1,041.4	1,049.4	1,048.1	1,046.2	1,052.2	1,064.4	1,064.5	1,060.9	1,045.1	1,046.9	1,043.2	1,036.9	1,030.9	1,026.1	1,001.4
Petroleum and coal products	189.2	190.2	192.0	192.7	192.9	196.0	196.3	193.7	188.9	187.8	183.9	166.3	124.8	187.0	183.2
Rubber and plastics products, nec	580.9	586.1	588.2	587.2	585.8	586.2	576.1	586.2	577.0	575.7	575.8	574.9	572.3	557.1	516.4
Leather and leather products	337.5	341.2	341.1	338.3	336.2	351.0	341.4	350.3	345.5	343.8	348.5	352.2	352.9	355.5	350.9
TRANSPORTATION AND PUBLIC UTILITIES	4,467	4,497	4,506	4,502	4,529	4,533	4,528	4,512	4,431	4,403	4,346	4,303	4,288	4,313	4,261
WHOLESALE AND RETAIL TRADE	14,660	15,645	15,090	14,847	14,702	14,660	14,662	14,717	14,517	14,398	14,201	14,097	14,189	14,081	13,606
Wholesale trade	3,815	3,871	3,849	3,834	3,806	3,821	3,818	3,793	3,709	3,688	3,678	3,666	3,671	3,618	3,525
Retail trade	10,845	11,774	11,241	11,013	10,896	10,839	10,844	10,924	10,808	10,710	10,523	10,431	10,518	10,464	10,081
FINANCE, INSURANCE, AND REAL ESTATE	3,585	3,608	3,599	3,591	3,597	3,642	3,629	3,585	3,534	3,517	3,490	3,467	3,448	3,383	3,225
SERVICES	11,154	11,222	11,230	11,255	11,183	11,253	11,266	11,243	11,131	11,044	10,913	10,792	10,693	10,592	10,099
Hotels and other lodging places	719.9	690.8	695.8	718.8	743.5	825.9	829.2	763.0	727.4	714.6	691.7	681.2	669.8	719.4	695.7
Personal services	1,010.1	1,019.9	1,025.4	1,028.0	1,021.8	1,023.0	1,036.0	1,042.2	1,031.1	1,025.4	1,016.6	1,012.7	1,017.6	1,031.3	1,027.8
Medical and other health services	2,952.6	2,947.6	2,935.7	2,913.7	2,893.8	2,891.0	2,889.3	2,866.6	2,816.9	2,804.3	2,789.5	2,772.1	2,748.2	2,637.7	2,434.3
Educational services	1,181.1	1,174.0	1,175.5	1,155.4	1,053.4	951.1	967.2	1,062.5	1,158.3	1,159.8	1,164.7	1,157.6	1,127.5	1,065.9	1,008.4
GOVERNMENT	12,377	12,585	12,498	12,409	12,080	11,730	11,822	12,348	12,306	12,274	12,279	12,244	12,140	11,846	11,398
Federal [3]	2,710	2,760	2,705	2,715	2,733	2,804	2,841	2,832	2,740	2,747	2,737	2,739	2,735	2,737	3,719
State and Local	9,667	9,825	9,793	9,694	9,347	8,926	8,981	9,516	9,566	9,527	9,542	9,505	9,405	9,109	8,679

[1] For comparability of data with those published in issues prior to August 1969, and coverage of these series, see footnote 1, table 11.

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

[3] Beginning January 1969, Federal employment includes approximately 39,000 civilian technicians of the National Guard, who were transferred from State to Federal status in accordance with Public Law 90-486.

NOTE: Data for the 2 most recent months are preliminary.

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

[In thousands]

Industry division and group	1970	1969											
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
TOTAL	70,649	70,656	70,635	70,651	70,390	70,500	70,247	70,300	70,013	69,789	69,710	69,487	69,199
MINING	631	635	632	631	631	631	629	622	622	624	626	628	626
CONTRACT CONSTRUCTION	3,268	3,443	3,461	3,418	3,420	3,410	3,434	3,466	3,407	3,363	3,374	3,366	3,338
MANUFACTURING	20,010	20,013	20,004	20,156	20,197	20,334	20,164	20,198	20,118	20,111	20,122	20,061	19,999
Production workers [2]	14,595	14,592	14,588	14,732	14,772	14,922	14,772	14,811	14,740	14,739	14,771	14,731	14,684
Durable goods	11,693	11,745	11,740	11,932	11,965	12,081	11,912	11,931	11,874	11,868	11,881	11,839	11,819
Production workers [2]	8,455	8,494	8,492	8,674	8,701	8,823	8,668	8,687	8,630	8,634	8,654	8,628	8,606
Ordnance and accessories	295	299	304	306	314	325	332	337	342	343	346	346	349
Lumber and wood products	590	590	591	589	595	598	600	607	610	604	608	607	606
Furniture and fixtures	489	487	488	491	492	493	491	496	496	496	494	494	490
Stone, clay, and glass products	660	664	664	662	660	659	658	662	656	658	664	666	664
Primary metal industries	1,361	1,371	1,378	1,381	1,378	1,361	1,348	1,347	1,333	1,326	1,332	1,330	1,321
Fabricated metal products	1,464	1,461	1,456	1,456	1,468	1,465	1,456	1,456	1,453	1,450	1,451	1,444	1,437
Machinery, except electrical	2,022	2,028	2,012	2,030	2,020	2,005	2,007	2,010	1,999	1,999	1,993	1,997	1,981
Electrical equipment	1,956	1,956	1,958	2,076	2,075	2,076	2,070	2,063	2,058	2,046	2,036	2,026	2,013
Transportation equipment	1,949	1,973	1,983	2,030	2,054	2,183	2,032	2,035	2,009	2,029	2,042	2,020	2,045
Instruments and related products	459	468	468	469	469	473	471	473	474	472	470	468	466
Miscellaneous manufacturing	448	448	438	442	440	443	447	445	444	445	445	441	447
Nondurable goods	8,317	8,268	8,264	8,224	8,232	8,253	8,252	8,267	8,244	8,243	8,241	8,222	8,180
Production workers [2]	6,140	6,098	6,096	6,058	6,071	6,099	6,104	6,124	6,110	6,105	6,117	6,103	6,078
Food and kindred products	1,832	1,801	1,808	1,777	1,791	1,797	1,787	1,789	1,793	1,795	1,793	1,801	1,792
Tobacco manufactures	79	75	78	78	80	83	81	81	82	81	83	82	84
Textile mill products	986	983	979	977	979	979	988	990	987	991	995	999	1,000
Apparel and other textile products	1,415	1,414	1,409	1,410	1,412	1,414	1,423	1,429	1,426	1,425	1,417	1,409	1,424
Paper and allied products	729	725	722	720	718	718	716	717	714	710	714	713	709
Printing and publishing	1,111	1,103	1,103	1,099	1,093	1,089	1,084	1,083	1,075	1,078	1,078	1,077	1,076
Chemicals and allied products	1,051	1,055	1,053	1,050	1,051	1,052	1,054	1,055	1,046	1,044	1,045	1,044	1,040
Petroleum and coal products	194	193	193	191	189	190	191	191	190	190	187	170	128
Rubber and plastics products, nec	581	580	581	583	583	586	585	584	581	579	579	577	573
Leather and leather products	339	339	338	339	336	345	343	348	350	350	350	350	354
TRANSPORTATION AND PUBLIC UTILITIES	4,535	4,488	4,484	4,480	4,480	4,484	4,483	4,467	4,444	4,439	4,399	4,373	4,353
WHOLESALE AND RETAIL TRADE	14,890	14,775	14,836	14,809	14,716	14,702	14,671	14,665	14,609	14,533	14,508	14,468	14,412
Wholesale trade	3,846	3,833	3,815	3,807	3,787	3,776	3,773	3,774	3,758	3,737	3,726	3,714	3,701
Retail trade	11,044	10,942	11,021	11,002	10,929	10,926	10,898	10,891	10,851	10,796	10,782	10,754	10,711
FINANCE, INSURANCE, AND REAL ESTATE	3,629	3,622	3,613	3,595	3,586	3,581	3,568	3,557	3,541	3,531	3,515	3,502	3,490
SERVICES	11,370	11,290	11,264	11,244	11,150	11,120	11,067	11,066	11,065	11,044	11,034	10,967	10,900
Hotels and other lodging places	788	746	742	740	721	704	706	724	730	741	745	733	733
Personal services	1,020	1,015	1,021	1,025	1,026	1,026	1,030	1,026	1,025	1,024	1,026	1,027	1,028
Medical and other health services	2,967	2,956	2,936	2,917	2,897	2,874	2,861	2,850	2,831	2,813	2,795	2,778	2,762
Educational services	1,142	1,125	1,118	1,113	1,092	1,094	1,099	1,102	1,120	1,119	1,117	1,112	1,090
GOVERNMENT	12,316	12,390	12,341	12,318	12,210	12,238	12,231	12,259	12,207	12,144	12,132	12,122	12,081
Federal [3]	2,735	2,720	2,721	2,729	2,749	2,752	2,777	2,790	2,754	2,758	2,759	2,767	2,760
State and local	9,581	9,670	9,620	9,589	9,461	9,486	9,454	9,469	9,453	9,386	9,373	9,355	9,321

[1] For comparability of data with those published in issues prior to August 1969, and coverage of these series, see footnote 1, table 11.

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

[3] See footnote 3, table 13.

NOTE: Data for the 2 most recent months are preliminary.

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

[Per 100 employees]

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

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11.

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

NOTE: Data for the current month are preliminary.

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

[Per 100 employees]

Major industry group	Accession rates						Separation rates								
	Total			New hires			Total			Quits			Layoffs		
	Dec. 1969	Nov. 1969	Dec. 1968	Dec. 1969	Nov. 1969	Dec. 1968	Dec. 1969	Nov. 1969	Dec. 1968	Dec. 1969	Nov. 1969	Dec. 1968	Dec. 1969	Nov. 1969	Dec. 1968
MANUFACTURING	2.9	3.6	3.0	2.1	2.8	2.2	4.1	4.3	3.8	1.6	2.1	1.6	1.7	1.3	1.4
Seasonally adjusted	4.6	4.4	4.7	3.5	3.4	3.7	4.6	4.8	4.2	2.5	2.6	2.5	1.3	1.2	1.1
Durable goods	2.6	3.2	3.0	2.0	2.6	2.2	3.7	3.9	3.4	1.5	1.8	1.5	1.5	1.2	1.2
Ordnance and accessories	1.2	1.2	2.1	.6	.7	1.6	3.5	3.9	2.3	.9	1.2	1.2	2.1	2.0	.5
Lumber and wood products	3.1	4.2	4.1	2.5	3.6	3.5	4.8	5.4	5.1	2.5	3.1	2.8	1.6	1.5	1.6
Furniture and fixtures	3.3	4.6	3.9	2.9	4.1	3.4	4.6	5.6	4.2	2.5	3.4	2.7	1.2	1.1	.6
Stone, clay, and glass products	2.8	3.6	3.2	2.1	3.0	2.4	4.5	4.4	4.2	1.8	2.2	1.7	1.9	1.3	1.7
Primary metal industries	2.4	2.9	3.3	1.8	2.2	1.7	2.8	3.0	2.6	1.2	1.5	1.1	.8	.5	.7
Fabricated metal products	3.1	4.1	3.4	2.5	3.5	2.7	4.0	4.6	3.9	1.9	2.3	1.8	1.2	1.2	1.2
Machinery, except electrical	2.4	2.8	2.5	1.9	2.3	1.9	2.3	2.7	2.3	1.1	1.3	1.1	.5	.6	.4
Electrical equipment	2.5	3.1	2.7	1.9	2.4	1.9	3.5	3.7	3.0	1.5	1.8	1.4	1.3	1.0	.8
Transportation equipment	2.5	2.8	2.9	1.5	1.7	1.8	4.3	4.1	3.3	1.1	1.3	1.1	2.4	1.8	1.4
Instruments and related products	2.2	2.6	2.3	1.7	2.1	1.9	2.6	2.7	2.2	1.3	1.3	1.2	.7	.7	.3
Miscellaneous manufacturing	2.8	4.8	3.1	2.3	4.1	2.4	9.5	7.7	10.3	2.1	2.8	2.2	6.6	3.6	7.2
Nondurable goods	3.2	4.1	3.1	2.4	3.1	2.3	4.5	4.7	4.2	1.9	2.4	1.9	1.9	1.6	1.7
Food and kindred products	4.1	5.6	4.1	3.0	4.1	2.9	7.2	7.2	6.2	2.5	3.2	2.3	4.0	3.2	3.2
Tobacco manufactures	5.9	4.2	5.8	4.3	2.9	3.4	6.4	7.9	5.9	1.8	2.0	1.8	3.9	5.1	3.4
Textile mill products	3.3	4.5	3.2	2.5	3.6	2.5	4.2	4.8	3.8	2.3	3.1	2.3	1.1	.9	.8
Apparel and other textile products	3.3	4.2	3.1	2.0	2.9	1.9	5.1	5.2	5.2	1.9	2.5	1.9	2.5	2.0	2.6
Paper and allied products	2.5	3.3	2.8	2.1	2.9	2.3	3.2	3.5	3.0	1.5	2.0	1.7	.9	.7	.6
Printing and publishing	2.7	3.3	2.6	2.1	2.9	2.1	3.0	3.0	2.9	1.6	1.9	1.6	.9	.5	.7
Chemicals and allied products	1.9	1.9	1.9	1.5	1.6	1.4	2.1	2.2	1.9	.9	1.0	.9	.6	.6	.4
Petroleum and coal products	1.3	1.6	1.4	1.2	1.4	1.1	2.4	2.1	2.1	.7	.9	.7	1.2	.6	.8
Rubber and plastics products, n.e.c.	3.6	4.3	3.5	2.9	3.6	2.8	4.6	5.1	4.1	2.3	2.7	2.1	1.3	1.2	1.0
Leather and leather products	4.5	5.5	3.9	3.2	3.9	2.9	5.0	5.4	5.7	2.5	3.2	2.5	1.6	1.3	2.3

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11. For relationship to employment series see footnote 1, table 15.

NOTE: Data for the current month are preliminary. For additional detail see Employment and Earnings, table D–2.

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

Year	Averages			Averages			Averages			Averages		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
	Total private			Manufacturing			Durable goods			Nondurable goods		
1947	$45.58	40.3	$1.131	$49.17	40.4	$1.217	$51.76	40.5	$1.278	$46.03	40.2	$1.145
1948	49.00	40.0	1.225	53.12	40.0	1.328	56.36	40.4	1.395	49.50	39.6	1.250
1949	50.24	39.4	1.275	53.88	39.1	1.378	57.25	39.4	1.453	50.38	38.9	1.295
1950	53.13	39.8	1.335	58.32	40.5	1.440	62.43	41.1	1.519	53.48	39.7	1.347
1951	57.86	39.9	1.45	63.34	40.6	1.56	68.48	41.5	1.65	56.88	39.5	1.44
1952	60.65	39.9	1.52	67.16	40.7	1.65	72.63	41.5	1.75	59.95	39.7	1.51
1953	63.76	39.6	1.61	70.47	40.5	1.74	76.63	41.2	1.86	62.57	39.6	1.58
1954	64.52	39.1	1.65	70.49	39.6	1.78	76.19	40.1	1.90	63.18	39.0	1.62
1955	67.72	39.6	1.71	75.70	40.7	1.86	82.19	41.3	1.99	66.63	39.9	1.67
1956	70.74	39.3	1.80	78.78	40.4	1.95	85.28	41.0	2.08	70.09	39.6	1.77
1957	73.33	38.8	1.89	81.59	39.8	2.05	88.26	40.3	2.19	72.52	39.2	1.85
1958	75.08	38.5	1.95	82.71	39.2	2.11	89.27	39.5	2.26	74.11	38.8	1.91
1959 [2]	78.78	39.0	2.02	88.26	40.3	2.19	96.05	40.7	2.36	78.61	39.7	1.98
1960	80.67	38.6	2.09	89.72	39.7	2.26	97.44	40.1	2.43	80.36	39.2	2.05
1961	82.60	38.6	2.14	92.34	39.8	2.32	100.35	40.3	2.49	82.92	39.3	2.11
1962	85.91	38.7	2.22	96.56	40.4	2.39	104.70	40.9	2.56	85.93	39.6	2.17
1963	88.46	38.8	2.28	99.63	40.5	2.46	108.09	41.1	2.63	87.91	39.6	2.22
1964	91.33	38.7	2.36	102.97	40.7	2.53	112.19	41.4	2.71	90.91	39.7	2.29
1965	95.06	38.8	2.45	107.53	41.2	2.61	117.18	42.0	2.79	94.64	40.1	2.36
1966	98.82	38.6	2.56	112.34	41.3	2.72	122.09	42.1	2.90	98.49	40.2	2.45
1967	101.84	38.0	2.68	114.90	40.6	2.83	123.60	41.2	3.00	102.03	39.7	2.57
1968	107.73	37.8	2.85	122.51	40.7	3.01	132.07	41.4	3.19	109.05	39.8	2.74
	Mining			Contract construction			Wholesale and retail trade			Finance, insurance, and real estate		
1947	$59.94	40.8	$1.469	$58.87	38.2	$1.541	$38.07	40.5	$0.940	$43.21	37.9	$1.140
1948	65.56	39.4	1.664	65.27	38.1	1.713	40.80	40.4	1.010	45.48	37.9	1.200
1949	62.33	36.3	1.717	67.56	37.7	1.792	42.93	40.5	1.060	47.63	37.8	1.260
1950	67.16	37.9	1.772	69.68	37.4	1.863	44.55	40.5	1.100	50.52	37.7	1.340
1951	74.11	38.4	1.93	76.96	38.1	2.02	47.79	40.5	1.18	54.67	37.7	1.45
1952	77.59	38.6	2.01	82.86	38.9	2.13	49.20	40.0	1.23	57.08	37.8	1.51
1953	83.03	38.8	2.14	86.41	37.9	2.28	51.35	39.5	1.30	59.57	37.7	1.58
1954	82.60	38.6	2.14	88.91	37.2	2.39	53.33	39.5	1.35	62.04	37.6	1.65
1955	89.54	40.7	2.20	90.90	37.1	2.45	55.16	39.4	1.40	63.92	37.6	1.70
1956	95.06	40.8	2.33	96.38	37.5	2.57	57.48	39.1	1.47	65.68	36.9	1.78
1957	98.65	40.1	2.46	100.27	37.0	2.71	59.60	38.7	1.54	67.53	36.7	1.84
1958	96.08	38.9	2.47	103.78	36.8	2.82	61.76	38.6	1.60	70.12	37.1	1.89
1959 [2]	103.68	40.5	2.56	108.41	37.0	2.93	64.41	38.8	1.66	72.74	37.3	1.95
1960	105.44	40.4	2.61	113.04	36.7	3.08	66.01	38.6	1.71	75.14	37.2	2.02
1961	106.92	40.5	2.64	118.08	36.9	3.20	67.41	38.3	1.76	77.12	36.9	2.09
1962	110.43	40.9	2.70	122.47	37.0	3.31	69.91	38.2	1.83	80.94	37.3	2.17
1963	114.40	41.6	2.75	127.19	37.3	3.41	72.01	38.1	1.89	84.38	37.5	2.25
1964	117.74	41.9	2.81	132.06	37.2	3.55	74.28	37.9	1.96	85.79	37.3	2.30
1965	123.52	42.3	2.92	138.38	37.4	3.70	76.53	37.7	2.03	88.91	37.2	2.39
1966	130.24	42.7	3.05	146.26	37.6	3.89	79.02	37.1	2.13	92.13	37.3	2.47
1967	135.89	42.6	3.19	154.95	37.7	4.11	81.76	36.5	2.24	95.46	37.0	2.58
1968	143.05	42.7	3.35	164.56	37.4	4.40	86.40	36.0	2.40	101.75	37.0	2.75

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11.

Data relate to production workers in mining and manufacturing; to construction workers in contract construction, and to nonsupervisory workers in wholesale and related trade, finance, insurance, and real estate; transportation and public utilities and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls. Transportation and public utilities, and services are included in total private but are not shown separately in this table.

[2] Data include Alaska and Hawaii beginning 1959.

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

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

Industry division and group	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1968	1967
TOTAL PRIVATE	37.2	37.7	37.5	37.7	38.0	38.2	38.1	38.0	37.7	37.5	37.6	37.2	37.5	37.8	38.0
MINING	42.7	43.5	43.4	43.4	43.5	43.7	43.1	42.5	43.5	43.6	42.2	42.5	42.9	42.7	42.6
CONTRACT CONSTRUCTION	35.8	37.6	37.1	38.4	39.3	39.2	38.8	38.5	38.2	37.6	37.2	36.6	36.7	37.4	37.7
MANUFACTURING	40.0	40.9	40.6	40.7	41.0	40.6	40.5	40.9	40.7	40.5	40.7	40.0	40.4	40.7	40.6
Overtime hours	3.1	3.6	3.6	3.7	4.0	3.7	3.5	3.7	3.6	3.5	3.5	3.3	3.6	3.6	3.4
Durable Goods	40.5	41.6	41.2	41.4	41.7	41.1	40.9	41.5	41.4	41.2	41.4	40.8	41.1	41.4	41.2
Overtime hours	3.1	3.8	3.7	3.9	4.2	3.8	3.6	3.9	3.7	3.6	3.7	3.6	3.7	3.8	3.5
Ordnance and accessories	40.6	40.6	40.7	40.3	40.6	40.2	39.8	40.8	40.6	40.5	40.6	40.1	40.4	41.5	41.7
Lumber and wood products	39.0	40.4	39.9	40.4	40.4	40.2	39.7	40.7	40.7	40.2	40.7	40.0	39.6	40.6	40.2
Furniture and fixtures	39.2	40.8	40.3	40.6	40.7	40.8	39.7	40.8	40.4	40.1	40.4	39.7	40.0	40.6	40.4
Stone, clay, and glass products	40.9	42.1	42.0	42.2	42.6	42.6	41.9	42.4	42.4	41.9	41.7	41.3	41.1	41.8	41.6
Primary metal industries	41.0	41.5	41.4	41.7	42.1	41.8	41.6	42.0	41.9	42.1	42.0	41.5	41.8	41.6	41.1
Fabricated metal products	40.9	41.9	41.6	41.7	42.1	41.7	41.2	42.0	41.7	41.4	41.6	40.8	41.4	41.7	41.5
Machinery, except electrical	42.1	43.1	42.2	42.4	42.7	42.0	41.8	42.6	42.6	42.6	43.0	42.4	42.4	42.1	42.6
Electrical equipment and supplies	40.2	40.8	40.5	40.4	40.7	40.3	39.8	40.7	40.5	40.3	40.6	39.7	40.3	40.3	40.2
Transportation equipment	40.0	42.2	41.5	41.9	42.3	40.5	41.6	41.6	41.3	41.0	41.2	41.0	41.5	42.2	41.4
Instruments and related products	38.8	41.3	41.1	40.9	41.2	40.7	40.5	41.0	40.7	40.5	40.7	39.7	40.5	40.5	41.3
Miscellaneous manufacturing industries	39.1	39.5	39.3	39.3	39.2	39.1	38.4	39.2	39.0	39.1	39.1	37.7	38.7	3.93	39.4
Nondurable goods	39.2	40.0	39.8	39.7	40.0	39.9	39.8	39.9	39.7	39.4	39.7	38.9	39.4	39.8	39.7
Overtime hours	3.0	3.4	3.4	3.5	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.0	3.3	3.3	3.1
Food and kindred products	39.9	41.0	41.0	40.7	41.8	41.4	41.2	40.9	40.6	40.1	40.3	40.0	40.3	40.8	40.9
Tobacco manufactures	38.2	37.0	37.4	38.4	38.9	37.5	37.7	39.9	37.6	35.8	35.6	36.2	36.2	37.8	38.6
Textile mill products	40.2	41.3	41.1	40.9	41.0	41.0	40.7	41.4	40.9	40.4	40.9	39.9	40.4	41.2	40.9
Apparel and other textile products	35.5	36.0	35.8	35.8	35.8	36.3	35.9	36.3	36.1	35.9	36.3	35.2	35.7	36.1	36.0
Paper and allied products	42.6	43.3	42.9	43.0	43.2	43.0	43.0	43.0	43.0	42.9	43.0	42.1	42.9	42.9	42.8
Printing and publishing	37.8	39.0	38.4	38.4	38.6	38.6	38.4	38.4	38.3	38.1	38.3	37.7	37.9	38.3	38.4
Chemicals and allied products	41.4	42.1	42.0	41.7	41.7	41.7	41.7	41.8	41.9	41.9	41.7	41.5	41.6	41.8	41.6
Petroleum and coal products	42.3	41.7	42.7	42.7	42.6	42.9	43.6	42.5	43.3	43.2	42.7	41.7	41.3	42.5	42.7
Rubber and plastics products, nec	40.9	41.4	41.1	41.3	41.5	41.0	40.8	41.3	41.2	41.0	41.1	40.3	41.3	41.5	41.4
Leather and leather products	37.8	38.3	37.4	37.0	36.8	37.1	37.4	37.8	37.3	36.5	37.3	35.7	37.7	38.3	38.1
WHOLESALE AND RETAIL TRADE	35.1	35.6	35.2	35.3	35.7	36.6	36.5	35.9	35.4	35.3	35.4	35.3	35.5	36.0	36.5
Wholesale trade	40.2	40.5	40.2	40.3	40.3	40.5	40.3	40.1	40.0	40.0	40.0	39.9	40.0	40.1	40.3
Retail trade	33.4	34.1	33.6	33.7	34.2	35.3	35.2	34.5	33.9	33.8	33.9	33.8	34.0	34.7	35.3
FINANCE, INSURANCE, AND REAL ESTATE	36.8	37.0	37.2	37.1	37.0	37.0	37.1	37.1	37.0	37.1	37.1	37.1	37.2	37.0	37.0

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: Data for the 2 most recent months are preliminary. For additional detail, see Employment and Earnings, table C–2

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

Industry division and group	1970	1969										
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
TOTAL PRIVATE	37.5	37.5	37.6	37.6	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.5	37.8
MINING	43.1	43.5	43.8	42.9	43.2	43.2	42.6	42.0	43.4	43.8	42.8	43.3	43.3
CONTRACT CONSTRUCTION	37.3	38.1	38.2	37.5	38.1	37.9	37.5	37.6	38.1	38.0	37.9	38.0	38.2
MANUFACTURING	40.2	40.6	40.5	40.5	40.8	40.6	40.7	40.7	40.7	40.8	40.9	40.1	40.6
Overtime hours	3.2	3.5	3.5	3.5	3.7	3.7	3.6	3.6	3.6	3.7	3.7	3.5	3.8
Durable Goods	40.7	41.2	41.1	41.2	41.5	41.3	41.2	41.3	41.4	41.4	41.5	40.9	41.3
Overtime hours	3.2	3.6	3.5	3.7	3.9	3.8	3.8	3.9	3.8	3.8	3.9	3.8	3.8
Ordnance and accessories	40.2	40.1	40.4	40.1	40.4	40.4	40.2	40.9	40.6	40.9	40.8	40.3	40.0
Lumber and wood products	39.4	40.6	40.3	40.0	40.1	39.8	39.7	40.2	40.3	40.2	40.9	40.8	40.0
Furniture and fixtures	39.8	40.0	39.9	39.9	40.1	40.3	40.1	40.7	40.9	40.9	40.7	40.1	40.6
Stone, clay, and glass products	41.6	42.2	42.0	41.7	42.1	42.1	41.7	41.9	42.1	42.0	42.3	42.2	41.8
Primary metal industries	40.9	41.5	41.6	42.2	42.2	42.0	41.5	41.7	41.7	41.8	41.9	41.6	41.7
Fabricated metal products	41.3	41.6	41.4	41.4	41.5	41.6	41.6	41.8	41.6	41.8	41.9	41.2	41.8
Machinery, except electrical	42.2	42.6	42.2	42.4	42.7	42.6	42.2	42.5	42.6	42.6	42.7	42.3	42.5
Electrical equipment and supplies	40.3	40.2	40.1	40.2	40.5	40.4	40.3	40.6	40.6	40.9	40.7	39.7	40.4
Transportation equipment	39.9	41.5	40.6	41.3	41.8	41.2	42.3	41.6	41.1	41.5	41.6	41.6	41.4
Instruments and related products	39.0	40.9	40.9	40.7	41.0	40.9	40.9	40.9	40.8	40.8	40.7	39.7	40.7
Miscellaneous manufacturing industries	39.6	39.3	38.9	38.8	39.0	39.0	39.1	39.2	39.1	39.5	39.0	37.6	39.2
Nondurable Goods	39.6	39.8	39.6	39.5	39.7	39.6	39.7	39.8	39.8	39.8	39.9	39.1	39.8
Overtime hours	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.2	3.6
Food and kindred products	40.2	40.8	40.8	40.5	41.0	40.9	40.6	40.7	40.8	40.9	40.9	40.7	40.6
Tobacco manufactures	39.3	36.4	37.4	37.2	37.4	37.2	38.2	39.5	38.1	36.4	36.5	36.6	37.2
Textile mill products	40.4	40.9	40.8	40.6	40.8	40.9	41.2	41.2	41.0	41.1	40.9	39.9	40.6
Apparel and other textile products	36.0	36.1	35.8	35.7	35.8	35.9	36.0	36.2	36.1	36.0	36.0	35.2	36.2
Paper and allied products	43.2	42.9	42.7	42.7	42.8	42.8	43.0	42.9	43.0	43.4	43.2	42.5	43.5
Printing and publishing	38.3	38.6	38.4	38.3	38.3	38.4	38.5	38.4	38.4	38.3	38.3	37.9	38.4
Chemicals and allied products	41.7	41.9	41.9	41.7	41.6	41.9	41.9	41.8	41.8	41.6	41.7	41.7	41.9
Petroleum and coal products	42.8	42.2	42.7	42.6	42.0	42.8	42.9	42.2	43.0	42.9	43.2	42.6	41.8
Rubber and plastics products, nec	41.1	41.0	40.8	40.9	41.0	40.9	41.2	41.3	41.4	41.4	41.4	40.7	41.5
Leather and leather products	37.7	37.7	37.4	37.3	37.1	36.8	37.0	37.4	37.6	37.7	37.6	35.3	37.6
WHOLESALE AND RETAIL TRADE	35.4	35.4	35.5	35.5	35.7	35.8	35.7	35.7	35.7	35.6	35.7	35.7	35.8
Wholesale Trade	40.3	40.3	40.2	40.3	40.3	40.3	40.0	40.0	40.1	40.2	40.1	40.1	40.1
Retail trade	33.8	33.8	34.0	33.9	34.2	34.3	34.2	34.2	34.3	34.1	34.3	34.2	34.4
FINANCE, INSURANCE, AND REAL ESTATE	36.8	36.9	37.2	37.1	37.1	37.0	37.0	37.2	37.0	37.1	37.1	37.1	37.2

[1] For comparability of data with those published in issues prior to August, 1969, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: Data for the 2 most recent months are preliminary.

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

Industry and division group	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1968	1967
TOTAL PRIVATE	$3.14	$3.12	$3.12	$3.11	$3.10	$3.05	$3.04	$3.03	$3.01	$2.98	$2.97	$2.96	$2.94	$2.85	$2.68
MINING	3.69	3.70	3.70	3.68	3.63	3.59	3.58	3.55	3.57	3.55	3.52	3.52	3.50	3.35	3.19
CONTRACT CONSTRUCTION	5.03	5.00	4.96	4.95	4.91	4.79	4.74	4.71	4.71	4.64	4.62	4.56	4.58	4.40	4.11
MANUFACTURING	3.29	3.29	3.26	3.24	3.24	3.19	3.19	3.17	3.16	3.15	3.13	3.12	3.12	3.01	2.83
Durable Goods	3.48	3.49	3.45	3.44	3.44	3.39	3.37	3.36	3.35	3.33	3.32	3.31	3.31	3.19	3.00
Ordnance and accessories	3.57	3.53	3.55	3.50	3.49	3.46	3.44	3.45	3.42	3.41	3.38	3.38	3.36	3.27	3.18
Lumber and wood products	2.83	2.83	2.84	2.82	2.83	2.78	2.74	2.71	2.68	2.64	2.65	2.61	2.59	2.57	2.37
Furniture and fixtures	2.70	2.70	2.70	2.68	2.68	2.64	2.62	2.62	2.60	2.58	2.56	2.54	2.54	2.47	2.33
Stone, clay, and glass products	3.27	3.28	3.28	3.26	3.25	3.21	3.18	3.17	3.17	3.14	3.10	3.06	3.05	2.99	2.82
Primary metal industries	3.86	3.87	3.85	3.85	3.87	3.84	3.79	3.76	3.75	3.74	3.71	3.69	3.70	3.55	3.34
Fabricated metal products	3.44	3.43	3.40	3.39	3.39	3.33	3.32	3.33	3.31	3.29	3.28	3.26	3.26	3.16	2.98
Machinery, except electrical	3.69	3.72	3.67	3.67	3.63	3.57	3.55	3.56	3.56	3.54	3.52	3.51	3.48	3.36	3.19
Electrical equipment and supplies	3.18	3.17	3.12	3.13	3.13	3.09	3.09	3.08	3.07	3.05	3.04	3.04	3.04	2.93	2.77
Transportation equipment	4.02	4.05	3.98	3.96	3.95	3.93	3.91	3.86	3.83	3.84	3.82	3.83	3.86	3.69	3.44
Instruments and related products	3.23	3.26	3.24	3.22	3.20	3.16	3.14	3.15	3.13	3.11	3.10	3.10	3.08	2.98	2.85
Miscellaneous manufacturing industries	2.78	2.76	2.71	2.68	2.67	2.64	2.64	2.65	2.64	2.62	2.61	2.61	2.60	2.50	2.35
Nondurable Goods	3.01	2.99	2.97	2.96	2.95	2.92	2.92	2.89	2.88	2.87	2.85	2.84	2.83	2.74	2.57
Food and kindred products	3.05	3.03	3.00	2.97	2.96	2.93	2.97	2.94	2.95	2.94	2.93	2.91	2.91	2.80	2.64
Tobacco manufactures	2.91	2.69	2.64	2.52	2.54	2.52	2.77	2.79	2.74	2.68	2.66	2.63	2.57	2.49	2.27
Textile mill products	2.42	2.42	2.42	2.41	2.41	2.39	2.35	2.31	2.30	2.30	2.29	2.27	2.28	2.21	2.06
Apparel and other textile products	2.36	2.35	2.35	2.34	2.35	2.31	2.29	2.30	2.29	2.28	2.29	2.27	2.28	2.21	2.03
Paper and allied products	3.34	3.33	3.32	3.31	3.31	3.28	3.26	3.22	3.19	3.17	3.15	3.14	3.15	3.05	2.87
Printing and publishing	3.82	3.81	3.78	3.77	3.75	3.70	3.68	3.68	3.66	3.64	3.63	3.61	3.59	3.48	3.28
Chemicals and allied products	3.59	3.57	3.56	3.54	3.52	3.49	3.49	3.46	3.43	3.40	3.38	3.37	3.37	3.26	3.10
Petroleum and coal products	4.25	4.10	4.11	4.06	4.04	4.00	4.04	4.00	4.03	4.03	3.95	3.87	3.69	3.75	3.58
Rubber and plastics products, nec	3.16	3.13	3.13	3.13	3.13	3.09	3.09	3.05	3.04	3.02	3.00	3.01	3.02	2.92	2.74
Leather and leather products	2.45	2.44	2.42	2.40	2.38	2.35	2.34	2.35	2.35	2.35	2.34	2.33	2.32	2.23	2.07
WHOLESALE AND RETAIL TRADE	2.65	2.61	2.63	2.61	2.59	2.56	2.55	2.55	2.54	2.52	2.51	2.51	2.49	2.40	2.24
Wholesale trade	3.36	3.34	3.33	3.29	3.29	3.24	3.23	3.24	3.20	3.18	3.16	3.16	3.12	3.05	2.88
Retail trade	2.37	2.34	2.36	2.35	2.33	2.30	2.30	2.30	2.29	2.27	2.26	2.26	2.24	2.16	2.01
FINANCE, INSURANCE, AND REAL ESTATE	3.01	2.97	2.98	2.94	2.93	2.92	2.91	2.93	2.90	2.88	2.89	2.90	2.87	2.75	2.58

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: Data for the 2 most recent months are preliminary. For additional detail see Employment and Earnings, table C–2.

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

Industry division and group	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1968	1967
TOTAL PRIVATE	$116.81	$117.62	$117.00	$117.25	$117.80	$116.51	$115.82	$115.14	$113.48	$111.75	$111.67	$110.11	$110.25	$107.73	$101.84
MINING	157.56	160.95	160.58	159.71	157.91	156.88	154.30	150.88	155.30	154.78	148.54	149.60	150.15	143.05	135.89
CONTRACT CONSTRUCTION	180.07	188.00	184.02	190.08	192.96	187.77	183.91	181.34	179.92	174.46	171.86	166.90	168.09	164.56	154.95
MANUFACTURING	131.60	134.56	132.36	131.87	132.84	129.51	129.20	129.65	128.61	127.58	127.39	124.80	126.05	122.51	114.90
Durable goods	140.94	145.18	142.14	142.42	143.45	139.33	137.83	139.44	138.69	137.20	137.45	135.05	136.04	132.07	123.60
Ordnance and accessories	144.94	143.32	144.49	141.05	141.69	139.09	136.91	140.76	138.85	138.11	137.23	135.54	135.74	135.71	132.61
Lumber and wood products	110.37	114.33	113.32	113.93	114.33	111.76	108.78	110.30	109.08	106.13	107.86	104.40	102.56	104.34	95.27
Furniture and fixtures	105.84	110.16	108.81	108.81	109.08	107.71	104.01	106.90	105.04	103.46	103.42	100.84	101.60	100.28	94.13
Stone, clay, and glass products	133.74	138.09	137.76	137.57	138.45	136.75	133.24	134.41	134.41	131.57	129.27	126.38	125.36	124.98	117.31
Primary metal industries	158.26	160.61	159.39	160.55	162.93	160.51	157.66	157.92	157.13	157.45	155.82	153.14	154.66	147.68	137.27
Fabricated metal products	140.70	143.72	141.44	141.36	142.72	138.86	136.78	139.86	138.03	136.21	136.45	133.01	134.96	131.77	123.67
Machinery, except electrical	155.35	160.33	154.87	155.61	155.00	149.94	148.39	151.66	151.66	150.80	151.36	148.82	147.55	141.46	135.89
Electrical equipment and supplies	127.84	129.34	126.36	126.45	127.39	124.53	122.98	125.36	124.34	122.92	123.42	120.69	122.51	118.08	111.35
Transportation equipment	160.80	170.91	165.17	165.92	167.09	159.17	162.66	160.58	158.18	157.44	157.38	157.03	160.19	155.72	142.42
Instruments and related products	125.32	134.64	133.16	131.70	131.84	128.61	127.17	129.15	127.39	125.96	126.17	123.07	124.74	120.69	117.71
Miscellaneous manufacturing industries	108.70	109.02	106.50	105.32	104.66	103.22	101.38	103.88	102.96	102.44	102.05	98.40	100.62	98.25	92.59
Nondurable goods	117.99	119.60	118.21	117.51	118.00	116.51	116.22	115.31	114.34	113.08	113.15	110.48	111.50	109.05	102.03
Food and kindred products	121.70	124.23	123.00	120.88	123.73	121.30	122.36	120.25	119.77	117.89	118.08	116.40	117.27	114.24	107.98
Tobacco manufactures	111.16	99.53	98.74	96.77	98.81	94.50	104.43	111.32	103.02	95.94	94.70	95.21	93.03	94.12	87.62
Textile mill products	97.28	99.95	99.46	98.57	98.81	97.99	95.65	95.63	94.07	92.92	93.66	90.57	92.11	91.05	84.25
Apparel and other textile products	83.78	84.60	84.13	83.77	84.13	83.85	82.21	83.49	82.67	81.85	83.13	79.90	81.40	79.78	73.08
Paper and allied products	142.28	144.19	142.43	142.33	142.99	141.04	140.18	138.46	137.17	135.99	135.45	132.19	135.14	130 85	122.84
Printing and publishing	144.40	148.59	145.15	144.77	144.75	142.82	141.31	141.31	140.18	138.68	139.03	136.10	136.06	133.28	125.95
Chemicals and allied products	148.63	150.30	149.52	147.62	146.78	145.53	145.53	144.63	143.72	142.46	140.95	139.86	140.19	136.27	128.96
Petroleum and coal products	179.78	170.97	175.50	173.36	172.10	171.60	176.14	170.00	174.50	174.10	168.67	161.38	152.40	159.38	152.87
Rubber and plastics products, n e c	129.24	129.58	128.64	129.27	129.90	126.69	126.07	125.97	125.25	123.82	123.30	121.30	124.73	121.18	113.44
Leather and leather products	92.61	93.45	90.51	88.80	87.58	87.19	87.52	88.83	87.66	85.78	87.28	83.18	87.46	85.41	78.87
WHOLESALE AND RETAIL TRADE	93.02	92.92	92.58	92.13	92.46	93.70	93.08	91.55	89.92	88.96	88.85	88.60	88.40	86.40	81.76
Wholesale trade	135.07	135.27	133.87	132.59	132.59	131.22	130.17	129.92	128.00	127.20	126.40	126.08	124.80	122.31	116.06
Retail trade	79.16	79.79	79.30	79.20	79.69	81.19	80.96	79.35	77.63	76.73	76.61	76.39	76.16	74.95	70.95
FINANCE, INSURANCE, AND REAL ESTATE	110.77	109.89	110.86	109.07	108.41	108.04	107.96	108.70	107.30	106.85	107.22	107.59	106.76	101.75	95.46

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: Data for the 2 most recent months are preliminary. For additional detail see Employment and Earnings, table C–2.

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

Year and month	Total private						Manufacturing					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents				Worker with no dependents		Worker with 3 dependents	
	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars	Current dollars	1957–59 dollars
1960	$80.67	$78.24	$65.95	$63.62	$72.96	$70.77	$89.72	$87.02	$72.57	$70.39	$80.11	$77.70
1961	82.60	79.27	67.08	64.38	74.48	71.48	92.34	88.62	74.60	71.59	82.18	78.87
1962	85.91	81.55	69.56	66.00	76.99	73.05	96.56	91.61	77.86	73.87	85.53	81.15
1963	88.46	82.91	71.05	66.59	78.56	73.63	99.63	93.37	79.82	74.81	87.58	82.08
1964	91.33	84.49	75.04	69.42	82.57	76.38	102.97	95.25	84.40	78.08	92.18	85.27
1965	95.06	86.50	78.99	71.87	86.30	78.53	107.53	97.84	89.08	81.06	96.78	88.06
1966	98.82	87.37	81.29	71.87	88.66	78.39	112.34	99.33	91.57	80.96	99.45	87.93
1967	101.84	87.57	83.38	71.69	90.86	78.13	114.90	98.80	93.28	80.21	101.26	87.07
1968	107.73	88.89	86.71	71.54	95.28	78.61	122.51	101.08	97.70	80.61	106.75	88.08
1968:												
December	100.38	89.23	88.29	71.37	97.22	78.59	127.82	103.33	101.17	81.79	110.65	89.45
1969:												
January	110.25	88.84	87.76	70.72	96.68	77.90	126.05	101.57	99.36	80.06	108.78	87.66
February	110.11	88.37	87.65	70.35	96.57	77.50	124.80	100.16	98.44	79.00	107.82	86.53
March	111.67	88.91	88.80	70.70	97.76	77.83	127.39	101.43	100.34	79.89	109.81	87.43
April	111.75	88.41	88.86	70.30	97.82	77.39	127.58	100.93	100.48	79.49	109.95	86.99
May	113.48	89.50	90.13	71.08	99.13	78.18	128.61	101.43	101.24	79.84	110.74	87.33
June	115.14	90.24	91.35	71.59	100.40	78.68	129.65	101.61	102.00	79.94	111.54	87.41
July	115.82	90.34	91.85	71.65	100.92	78.72	129.20	100.78	101.67	79.31	111.20	86.74
August	116.51	90.53	92.35	71.76	101.45	78.83	129.51	100.63	101.90	79.18	111.44	86.59
September	117.80	91.11	93.30	72.16	102.44	79.23	132.84	102.74	104.34	80.70	114.01	88.17
October	117.25	90.33	92.89	71.56	102.01	78.59	131.87	101.59	103.63	79.84	113.25	87.25
November	117.00	89.66	92.71	71.04	101.82	78.02	132.36	101.43	103.99	79.69	113.63	87.07
December	117.25	89.30	92.89	70.75	102.01	77.69	134.89	102.73	105.85	80.62	115.61	88.05

[1] For comparability of data with those published in issues prior to August 1969, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

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

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

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

NOTE: Data for the most recent month are preliminary. For additional detail see Employment and Earnings, table C–5.

23. Consumer Price Index—general summary

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

[1957–59=100 unless otherwise specified]

Item and group	1970	1969												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1969	1968
All items	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.6	126.8	126.4	125.6	124.6	124.1	127.7	121.2
All items (1947–49=100)	161.7	161.1	160.1	159.3	158.6	157.9	157.3	156.6	155.6	155.0	154.1	152.9	152.3	156.7	148.7
Food	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	123.2	122.4	121.9	122.0	125.5	119.3
Food at home	126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.8	119.8	119.3	118.5	118.1	118.3	121.5	115.9
Food away from home	150.6	149.9	149.0	148.1	146.7	145.8	144.8	143.7	142.8	142.2	141.3	140.7	140.3	144.6	136.3
Housing	131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.3	125.8	125.3	124.4	123.3	122.7	126.7	119.1
Rent	121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.5	118.1	117.8	117.5	117.2	116.9	118.8	115.1
Homeownership	146.8	145.4	144.5	143.6	142.6	141.3	140.0	138.7	138.0	137.1	135.7	133.6	132.7	139.4	127.0
Apparel and upkeep	129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.0	126.6	125.6	124.9	123.9	123.4	127.1	120.1
Transportation	127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.6	124.0	124.6	124.3	122.0	120.7	124.2	119.6
Health and recreation	140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.3	135.7	135.1	134.3	133.7	133.3	136.6	130.0
Medical care	159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.2	154.5	153.6	152.5	151.3	150.2	155.0	145.0
Special groups:															
All items less shelter	129.8	129.5	128.6	128.1	127.6	127.1	126.7	126.3	125.4	125.0	124.4	123.5	123.1	126.3	120.6
All items less food	132.3	131.9	131.4	130.8	130.0	129.3	128.8	128.4	127.9	127.5	126.8	125.6	124.9	128.6	121.9
All items less medical care	130.1	129.7	128.9	128.2	127.6	127.0	126.5	126.0	125.2	124.7	124.0	123.0	122.5	126.1	119.7
Commodities	123.7	123.6	122.9	122.4	121.7	121.4	121.0	120.5	119.6	119.3	118.7	117.8	117.4	120.5	115.3
Nondurables	127.8	127.7	126.7	126.1	125.8	125.2	124.7	124.1	123.0	122.5	121.8	121.1	121.0	124.1	118.4
Durables	113.7	113.6	113.5	113.2	111.6	111.9	111.9	111.7	111.3	111.4	111.1	109.7	108.6	111.6	107.5
Services	149.6	148.3	147.2	146.5	146.0	145.0	144.0	143.3	142.7	142.0	140.9	139.7	139.0	143.7	134.3
Commodities less food	120.1	120.3	120.2	119.8	118.7	118.2	118.1	118.0	117.5	117.2	116.8	115.7	115.0	118.0	113.2
Nondurables less food	125.2	125.7	125.5	125.1	124.4	123.3	123.1	123.0	122.4	121.9	121.4	120.5	120.1	123.0	117.7
Apparel commodities	128.6	130.3	130.4	129.3	128.1	125.9	126.2	126.4	126.0	124.9	124.3	123.1	122.6	126.5	119.3
Apparel commodities less footwear	125.5	127.5	127.7	126.6	125.3	122.8	123.5	123.7	123.4	122.2	121.6	120.5	119.9	123.7	116.8
Nondurables less food and apparel	123.2	123.0	122.6	122.6	122.2	121.7	121.3	121.0	120.3	120.2	119.7	118.9	118.6	121.0	116.8
Household durables	106.6	106.5	106.5	106.4	106.2	106.0	106.0	105.8	105.6	105.0	104.4	103.7	103.3	105.5	101.4
Housefurnishings	110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0	108.8	108.3	107.8	107.1	106.6	109.0	104.7
Service less rent	155.8	154.3	153.1	152.3	151.7	150.7	149.6	148.8	148.1	147.4	146.1	144.6	143.9	149.2	138.6
Household services less rent	153.2	152.4	151.4	150.4	149.5	148.2	146.9	145.7	145.0	144.2	142.5	140.6	139.8	146.4	134.5
Transportation services	152.9	148.4	145.8	145.1	144.0	143.1	142.5	142.3	141.8	141.4	140.9	139.8	139.2	142.9	133.5
Medical care services	173.8	172.8	171.8	171.2	172.2	171.1	170.1	169.1	168.2	167.2	165.8	164.3	162.8	168.9	156.3
Other services	149.4	148.9	148.2	147.6	147.2	146.5	145.7	145.2	144.7	144.2	143.2	142.7	142.3	145.5	138.8

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

[1957–59=100 unless otherwise specified]

Item or group	Other index bases	1970	1969											Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
FOOD		130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	123.2	122.4	121.9	122.0	125.5
Food away from home		150.6	149.9	149.0	148.1	146.7	145.8	144.8	143.7	142.8	142.2	141.3	140.7	140.3	144.6
Restaurant meals		150.7	150.2	149.3	148.3	147.2	146.2	145.1	144.0	143.0	142.3	141.4	140.8	140.4	144.9
Snacks	Dec. 63	131.4	129.9	129.2	128.8	126.2	125.6	125.1	124.4	124.1	123.7	123.0	122.4	122.2	125.4
Food at home		126.6	125.8	123.8	122.9	123.6	123.6	123.0	121.8	119.8	119.3	118.5	118.1	118.3	121.5
Cereals and bakery products		125.5	124.9	124.1	123.7	123.0	122.6	122.6	122.0	121.6	121.3	121.2	120.8	120.5	122.4
Flour		110.9	110.9	111.2	111.6	111.2	111.4	111.6	112.1	112.2	111.7	111.5	111.7	110.4	111.5
Cracker meal	Dec. 63	127.8	127.9	127.2	126.9	125.8	124.7	123.3	122.1	119.3	117.9	117.8	117.6	117.6	122.3
Corn flakes		130.2	130.0	129.7	129.6	129.4	129.4	129.0	129.0	127.9	128.4	129.3	129.4	129.6	129.2
Rice		113.8	113.4	113.0	113.0	112.9	112.6	112.3	112.1	112.0	111.7	111.6	111.6	111.2	112.3
Bread, white		132.2	131.1	129.7	129.1	128.8	128.1	128.2	127.2	127.1	127.2	127.4	126.8	126.6	128.1
Bread, whole wheat	Dec. 63	124.4	124.1	123.4	122.5	121.6	120.3	120.9	119.6	119.6	119.5	119.2	118.5	117.1	120.5
Cookies		101.3	100.9	99.8	99.8	101.0	100.9	100.9	100.1	100.9	101.1	100.8	99.5	101.1	100.6
Layer cake	Dec. 63	118.1	118.0	117.1	115.4	113.2	113.8	113.6	114.1	113.9	112.3	111.1	111.3	110.5	113.7
Cinnamon rolls	Dec. 63	116.3	115.8	115.1	115.2	113.2	112.8	113.4	113.2	111.9	112.1	111.8	111.5	111.1	113.1
Meats, poultry, and fish		128.8	127.2	127.2	127.6	129.0	127.9	127.6	125.3	119.9	118.4	116.5	116.2	115.6	123.2
Meats		132.9	131.3	131.1	132.0	133.1	131.9	131.7	129.5	123.4	121.2	119.1	119.0	118.6	126.8
Beef and veal		132.2	130.6	131.5	132.9	135.0	135.4	136.8	134.6	127.9	125.1	121.4	121.3	121.1	129.5
Steak, round		126.2	123.2	125.2	126.8	128.1	129.9	132.5	131.0	124.1	121.4	116.8	117.0	116.8	124.4
Steak, sirloin	Apr. 60	121.4	119.0	121.1	123.4	128.3	127.4	131.1	129.6	120.7	117.2	113.5	113.8	114.7	121.7
Steak, porterhouse	Dec. 63	126.6	123.9	125.9	129.0	132.9	132.7	135.5	133.0	125.2	121.6	118.5	118.6	119.4	126.4
Rump roast	Dec. 63	120.7	118.8	119.5	121.1	122.1	123.4	125.0	123.0	117.2	115.4	112.3	111.9	111.5	118.4
Rib roast		141.6	140.5	140.9	140.8	145.9	146.5	150.1	147.1	138.1	133.6	129.3	130.8	132.5	139.7
Chuck roast		122.1	123.2	122.7	125.3	127.2	128.7	131.0	127.9	121.5	119.2	114.3	114.0	113.1	122.3
Hamburger		138.7	137.8	138.4	139.1	140.9	140.5	140.0	137.9	131.4	128.3	125.0	124.4	124.0	134.0
Beef liver	Dec. 63	118.7	118.6	117.9	117.8	117.8	116.8	115.4	112.1	109.6	110.1	107.7	108.1	106.4	113.2
Veal cutlets		164.0	162.0	162.1	162.8	162.8	162.1	161.1	159.8	154.2	150.6	147.7	146.1	145.0	156.4

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

Index or group	Other index bases	1970	1969											Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
FOOD—Continued															
Meats, poultry, and fish—Continued															
Meats—Continued															
Pork		135.6	133.3	132.0	132.7	133.7	130.2	129.0	126.1	118.8	117.5	116.4	116.6	115.7	125.2
Chops		136.9	135.7	134.1	134.0	137.6	135.7	136.4	134.8	122.4	122.0	121.0	121.9	120.1	129.6
Loin roast	Apr. 60	143.7	143.4	140.4	141.8	143.0	141.3	141.9	139.7	129.8	128.1	126.6	127.8	126.2	135.8
Pork sausage	Dec. 63	146.7	146.8	148.3	149.1	149.6	146.0	143.6	137.2	130.0	127.4	125.7	125.5	124.5	137.8
Ham, whole		136.9	130.7	124.8	123.9	121.8	117.0	114.2	114.2	111.1	108.0	113.1	112.4	114.5	117.1
Picnics	Dec. 63	137.7	134.7	136.0	136.5	135.5	134.5	130.9	124.8	121.5	121.1	118.3	118.4	117.9	127.5
Bacon		136.7	133.1	132.4	134.9	135.6	128.7	126.8	124.1	118.4	117.3	114.3	113.6	112.6	124.3
Other meats		135.3	134.4	133.6	133.3	132.6	131.2	128.8	127.2	124.0	122.2	122.0	121.4	121.2	127.7
Lamb chops	Dec. 63	140.9	140.4	139.4	139.9	139.7	139.3	140.9	139.1	136.2	133.7	132.4	131.9	130.6	137.0
Frankfurters		134.2	134.6	134.7	134.7	135.4	133.7	129.4	127.6	122.2	120.4	119.2	118.5	118.1	127.4
Ham, canned	Dec. 63	134.8	130.4	127.8	125.1	122.6	120.6	115.6	117.6	116.6	115.3	117.2	115.0	116.4	120.0
Bologna sausage	Dec. 63	137.2	136.6	136.1	136.2	136.2	134.5	132.0	128.8	123.7	122.4	121.8	121.8	121.5	129.3
Salami sausage	Dec. 63	128.0	127.9	127.1	127.2	127.0	126.0	123.7	121.5	118.6	116.6	116.6	116.7	116.8	122.1
Liverwurst	Dec. 63	130.1	129.9	129.8	129.9	128.0	126.3	125.0	122.2	120.6	118.8	118.3	118.4	117.5	123.7
Poultry		99.5	97.9	99.1	98.2	102.0	101.4	100.4	97.3	93.3	95.3	94.2	92.3	90.8	96.9
Frying chicken		99.4	97.9	99.5	98.6	103.8	103.3	103.1	99.2	94.7	97.9	95.5	93.0	90.9	98.1
Chicken breasts	Dec. 63	110.1	110.4	110.8	112.0	113.8	113.0	109.4	107.6	104.4	106.7	105.3	103.9	103.6	108.4
Turkey	Dec. 63	114.4	110.3	110.0	107.2	105.9	104.7	101.8	101.1	98.7	93.4	99.7	100.5	100.4	102.8
Fish		137.0	135.4	134.0	133.4	132.2	131.5	130.6	129.8	129.5	128.4	127.7	127.7	127.0	130.6
Shrimp, frozen	Dec. 63	125.4	124.4	122.9	122.5	121.0	120.8	119.7	118.3	118.2	116.8	116.5	115.6	114.5	119.3
Fish, fresh or frozen		145.2	143.4	141.1	139.9	138.6	137.2	134.5	133.1	132.0	130.2	128.6	128.3	128.1	134.6
Tuna, fish, canned		120.5	117.9	116.7	116.2	114.9	114.4	113.6	113.8	114.0	113.1	112.4	113.3	112.4	114.4
Sardines, canned	Dec. 63	126.0	125.4	125.0	124.9	124.2	123.5	124.4	124.0	123.7	123.7	123.5	123.9	123.6	124.2
Dairy products		128.4	127.6	126.3	125.8	125.5	125.0	124.4	124.0	123.6	122.9	123.0	122.8	122.7	124.5
Milk, fresh, grocery		126.1	125.0	123.4	122.8	122.8	122.3	121.7	121.3	120.7	120.5	120.7	120.3	120.5	121.8
Milk, fresh, delivered		132.7	132.3	130.4	130.1	129.4	128.7	128.0	127.6	127.3	126.8	127.0	126.7	126.4	128.4
Milk, fresh, skim	Dec. 63	127.4	126.0	125.0	124.3	124.8	124.3	122.9	122.3	121.7	121.5	121.4	121.1	120.3	123.0
Milk, evaporated		126.4	125.0	124.3	123.8	124.1	124.1	123.9	124.0	123.8	122.9	122.4	121.8	121.7	123.5
Ice cream		102.1	102.0	100.7	99.9	100.1	99.5	99.0	99.8	98.8	97.0	98.9	99.4	99.4	99.5
Cheese, American process		153.1	152.4	151.0	149.9	148.9	148.5	147.7	146.6	146.1	143.6	142.5	142.7	142.1	146.8
Butter		119.9	119.6	119.4	119.9	118.3	118.0	118.0	117.8	117.9	117.4	117.4	117.6	117.8	118.3
Fruits and vegetables		130.9	132.1	127.0	124.0	126.8	130.2	132.3	130.8	130.0	127.9	127.6	124.7	127.0	128.4
Fresh fruits and vegetables		141.9	144.1	135.4	130.1	134.9	141.0	145.0	142.4	140.9	137.6	137.2	132.3	136.4	138.1
Apples		134.0	129.3	125.7	131.7	174.6	190.5	192.9	185.3	171.4	167.4	164.7	160.1	156.0	162.5
Bananas		94.5	93.3	93.9	100.7	99.6	97.4	97.7	94.5	96.3	91.7	91.4	94.7	92.9	95.3
Oranges		121.5	125.0	132.4	131.9	132.1	132.7	127.9	125.4	126.2	126.4	126.9	126.6	127.1	128.4
Orange juice, fresh	Dec. 63	90.5	91.5	91.8	92.0	92.1	92.0	91.4	91.8	91.2	91.7	90.2	88.0	87.4	90.9
Grapefruit		143.7	142.0	144.1	184.0	205.9	194.6	156.6	143.5	137.3	134.5	134.3	141.6	143.1	155.1
Grapes		(1)	(1)	154.3	144.0	137.8	147.4	(1)	188.3	(1)	(1)	(1)	(1)	(1)	154.4
Strawberries		(1)	(1)	(1)	(1)	(1)	(1)	(1)	126.8	121.5	147.5	(1)	(1)	(1)	131.9
Watermelon		(1)	(1)	(1)	(1)	(1)	116.1	119.6	159.9	(1)	(1)	(1)	(1)	(1)	131.9
Potatoes		144.3	142.0	140.1	137.6	144.5	159.0	165.2	154.5	143.8	141.2	139.1	136.4	133.7	144.8
Onions		140.5	136.4	133.2	134.2	139.0	152.2	141.5	135.0	130.5	124.3	123.6	128.2	131.5	134.1
Asparagus	Dec. 63	141.6	(1)	(1)	(1)	(1)	(1)	129.6	121.1	118.9	152.2	171.5	(1)	(1)	138.7
Cabbage		188.7	173.4	150.6	145.9	135.6	138.3	145.7	155.6	152.6	148.8	149.7	153.8	174.3	152.0
Carrots		139.2	146.6	127.1	129.6	128.3	139.6	129.5	119.8	109.7	114.0	113.0	114.3	114.2	123.8
Celery		140.5	132.2	131.2	115.5	120.1	130.2	151.8	139.2	134.3	113.2	110.6	111.6	117.7	125.6
Cucumbers	Dec. 63	203.4	176.5	122.5	118.5	111.7	122.5	123.0	124.6	161.1	161.9	145.3	171.5	237.8	148.1
Lettuce		137.6	189.5	177.9	133.3	130.8	124.2	126.8	120.2	149.3	166.1	156.0	115.3	143.9	144.4
Peppers, green	Dec. 63	231.2	217.2	160.9	145.7	147.8	146.4	165.6	180.7	188.0	163.7	192.9	192.1	167.2	172.4
Spinach	Dec. 63	120.3	121.8	116.5	120.1	118.0	117.2	118.8	111.1	109.6	113.4	110.0	110.3	110.2	114.8
Tomatoes		168.1	177.5	146.7	119.0	103.2	116.3	131.0	158.0	173.8	118.7	144.3	133.2	135.9	138.1
Processed fruits and vegetables		117.1	117.1	116.8	116.6	116.9	116.7	116.4	116.3	116.3	115.9	115.8	115.3	115.3	116.3
Fruit cocktail, canned		105.3	106.2	105.4	105.6	106.6	106.3	107.1	106.3	106.0	106.5	106.6	106.9	107.2	106.4
Pears, canned	Dec. 63	106.0	106.4	106.9	107.6	108.2	108.8	108.6	108.9	109.0	109.4	110.1	110.1	110.9	108.7
Grapefruit-pineapple juice, canned	Dec. 63	103.0	102.4	102.6	102.2	101.8	101.0	100.4	99.9	99.1	99.6	99.4	98.7	98.4	100.5
Orange juice concentrate, frozen		96.4	97.4	97.2	98.2	99.4	100.0	100.4	101.0	103.7	102.1	99.5	94.8	92.6	98.9
Lemonade concentrate, frozen	Apr. 60	95.1	94.7	94.1	93.8	93.3	92.5	90.6	92.3	92.5	92.3	91.4	91.2	90.7	92.5
Beets, canned	Dec. 63	113.9	113.6	113.3	112.8	113.1	112.8	113.3	112.7	113.4	113.1	113.5	113.2	113.3	113.2
Peas, green, canned		122.4	122.4	123.1	122.9	122.9	122.7	121.7	121.0	121.1	121.3	120.6	120.1	120.7	121.7
Tomatoes, canned		126.7	126.6	125.5	124.8	124.1	124.6	124.5	124.1	123.8	123.6	124.3	124.9	125.7	124.7
Dried beans		123.1	123.3	123.6	124.3	125.0	125.0	124.7	124.9	125.4	124.6	124.8	125.3	124.9	124.7
Broccoli, frozen	Dec. 63	110.8	109.6	108.0	106.7	107.5	106.7	105.4	104.9	103.2	101.1	101.3	100.7	101.2	104.7
Other food at home		117.7	116.6	112.9	111.0	110.5	110.5	107.2	106.6	107.1	109.0	108.5	109.4	109.8	109.9
Eggs		143.0	140.6	122.3	114.5	113.8	114.4	95.6	92.5	97.4	109.8	108.5	116.2	119.8	112.1
Fats and oils:															
Margarine		105.6	105.0	103.7	102.7	102.2	102.4	103.1	103.5	102.8	102.6	103.0	102.3	102.6	103.0
Salad dressing, Italian	Dec. 63	102.5	102.6	102.5	102.8	102.3	102.3	102.4	103.4	103.2	102.9	102.6	102.3	101.6	102.6
Salad or cooking oil	Dec. 63	126.2	124.8	123.9	123.0	123.6	123.6	123.5	123.3	122.7	122.3	122.8	123.5	123.2	123.4
Sugar and sweets		128.1	127.5	126.6	126.4	126.0	125.4	125.3	125.2	124.7	124.4	123.8	123.1	122.7	125.1
Sugar		116.7	116.2	116.2	116.3	116.4	116.5	116.2	115.6	115.0	114.4	114.1	113.5	113.5	115.3
Grape jelly		129.7	128.7	126.5	125.6	124.7	123.9	123.9	124.1	123.1	122.5	122.4	121.6	121.6	124.1
Chocolate bar		127.1	127.4	126.6	126.7	126.5	125.1	124.9	124.8	124.5	124.5	123.7	123.1	123.0	125.1
Syrup, chocolate flavored	Dec. 63	108.1	107.1	106.9	106.8	106.5	106.5	106.4	106.5	106.4	106.3	105.4	104.7	103.7	106.1

See footnotes at end of table.

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

Item or group	Other index bases	1970	1969												Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
FOOD—Continued															
Other food at home—Continued															
Nonalcoholic beverages		109.1	107.4	106.1	104.3	103.7	103.8	103.3	103.4	102.7	102.6	102.5	102.2	102.3	103.7
Coffee, can and bag		94.9	92.3	90.0	87.0	86.6	86.7	86.3	86.8	86.6	86.8	87.0	87.0	87.2	87.5
Coffee, instant	July 61	109.6	108.0	106.0	104.2	103.8	103.9	103.6	103.7	103.0	102.1	101.2	99.7	99.7	103.2
Tea		103.1	102.9	102.2	102.1	102.0	102.2	102.0	102.0	100.8	101.0	101.6	101.5	101.8	101.8
Cola drink		159.3	158.4	158.7	158.0	156.8	156.6	155.3	155.1	153.8	153.8	152.8	152.4	152.1	155.3
Carbonated fruit drink	Dec. 63	125.5	124.8	124.7	124.5	123.4	123.1	122.7	121.9	120.4	119.8	119.3	119.1	119.2	121.9
Prepared and partially prepared foods	Dec. 63	108.5	108.2	107.6	107.4	106.9	106.7	106.2	105.9	106.0	105.8	105.1	104.5	104.3	106.2
Bean soup, canned	Dec. 63	109.7	108.8	107.2	106.3	105.6	105.4	105.1	105.1	105.2	104.5	103.5	102.4	101.2	105.0
Chicken soup, canned	Dec. 63	100.8	100.3	99.5	98.3	98.1	98.3	98.0	97.8	98.2	97.5	96.7	96.2	96.5	98.0
Spaghetti, canned	Dec. 63	120.8	120.4	119.8	118.9	117.2	117.3	117.0	116.4	116.2	116.0	115.7	115.1	114.6	117.1
Mashed potatoes, instant	Dec. 63	109.7	109.6	110.0	109.6	108.9	108.5	108.1	107.7	107.7	106.4	104.5	103.2	102.6	107.2
Potatoes, french fried, frozen	Apr. 60	92.7	92.5	92.1	92.8	92.7	92.5	91.8	90.8	90.6	91.2	90.7	89.0	89.7	91.4
Baby foods, canned		112.1	111.9	111.4	111.7	112.7	112.1	111.7	110.7	110.9	111.1	111.1	111.8	111.8	111.6
Sweet pickle relish	Dec. 63	115.6	115.0	114.3	114.2	112.6	112.0	111.0	111.8	112.5	113.2	112.8	112.3	112.4	112.8
Pretzels	Dec. 63	107.1	107.5	107.0	107.6	107.6	107.6	107.4	107.0	106.8	106.9	106.7	106.9	106.7	107.1
HOUSING		131.1	130.5	129.8	129.2	128.6	127.8	127.0	126.3	125.8	125.3	124.4	123.3	122.7	126.7
Shelter		139.6	138.5	137.7	137.0	136.1	135.1	134.0	133.0	132.4	131.6	130.5	128.9	128.2	133.6
Rent		121.3	121.0	120.5	120.1	119.7	119.3	118.8	118.5	118.1	117.8	117.5	117.2	116.9	118.8
Homeownership		146.8	145.4	144.5	143.6	142.6	141.3	140.0	138.7	138.0	137.1	135.7	133.6	132.7	139.4
Mortgage interest rates	Dec. 63	139.9	139.6	139.3	138.8	138.2	137.1	135.8	134.9	134.3	133.5	129.5	126.1	125.4	134.4
Property taxes		133.0	132.0	131.5	130.5	130.4	129.9	128.7	128.2	128.3	128.1	127.7	126.4	126.1	129.0
Property insurance rates		152.5	153.3	152.3	150.7	149.5	150.3	149.6	147.4	146.9	146.0	146.1	146.0	145.7	148.7
Maintenance and repairs		146.4	145.8	144.9	144.5	143.8	142.4	141.5	140.8	139.6	138.4	137.4	135.4	134.3	140.7
Commodities	Dec. 63	116.1	115.9	116.0	116.2	116.7	117.2	117.5	117.8	117.5	117.0	115.9	113.9	112.1	116.1
Exterior house paint		119.3	119.1	118.7	118.0	117.6	116.5	115.7	115.6	115.9	116.2	115.5	114.6	114.0	116.5
Interior house paint	Dec. 63	114.1	114.3	113.6	113.8	113.1	113.1	112.3	112.2	111.6	111.7	111.6	111.2	109.9	112.4
Services	Dec. 63	144.1	143.5	142.2	141.6	140.4	138.2	136.9	135.7	134.2	132.9	132.0	130.1	129.6	136.4
Repainting living and dining rooms		184.6	183.6	182.6	181.8	179.7	178.3	176.1	174.0	171.5	167.9	167.1	166.5	165.5	174.6
Reshingling roofs		164.9	164.1	163.0	162.3	161.4	157.6	155.4	154.2	152.3	151.4	150.4	149.4	148.5	155.8
Residing houses	Dec. 63	134.6	134.0	134.2	133.7	133.0	130.0	129.3	128.6	127.6	126.5	125.3	123.3	122.9	129.0
Replacing sinks	Dec. 63	145.2	144.5	142.6	142.0	140.4	139.0	137.8	137.2	135.3	134.7	133.7	131.1	130.8	137.4
Repairing furnaces	Dec. 63	150.0	149.7	145.2	144.1	142.8	141.2	139.7	137.7	136.4	135.0	134.5	131.5	130.8	139.1
Fuel and utilities		114.6	114.6	114.2	113.5	113.3	113.0	112.6	112.7	112.6	112.6	112.2	111.8	111.7	112.9
Fuel oil and coal		119.7	119.2	118.9	118.4	118.1	117.7	117.4	117.5	117.5	117.4	117.2	116.9	116.7	117.8
Fuel oil, #2		116.6	116.2	116.0	115.5	115.4	115.2	115.0	115.0	114.9	114.8	114.5	114.3	114.0	115.1
Gas and electricity		114.1	113.7	113.2	112.2	112.0	111.5	110.9	111.3	111.2	111.2	110.6	110.2	110.2	111.5
Gas		120.5	119.8	118.8	116.9	116.7	116.1	115.7	116.4	116.4	116.5	116.2	116.1	116.0	116.8
Electricity		107.4	107.2	107.2	106.9	106.8	106.4	105.6	105.7	105.5	105.4	104.5	104.0	104.0	105.8
Other utilities:															
Residential telephone services		103.0	103.8	103.7	103.6	103.6	103.6	103.6	103.6	103.4	103.3	103.1	103.1	103.0	103.5
Residential water and sewerage		147.5	147.5	147.5	145.3	145.3	145.3	145.3	143.4	143.4	143.4	143.4	141.6	141.6	144.4
Household furnishings and operation		120.1	120.0	119.6	119.3	119.0	118.5	118.2	117.9	117.4	116.9	116.4	115.8	115.2	117.9
Housefurnishings		110.5	110.6	110.4	110.2	109.9	109.4	109.3	109.0	108.8	108.3	107.8	107.1	106.6	109.0
Textiles		114.2	116.1	115.7	115.0	115.2	113.8	114.8	114.8	114.4	114.6	113.6	112.7	111.7	114.4
Sheets, percale or muslin		117.3	122.2	121.7	120.1	119.8	116.2	118.7	120.2	118.3	121.0	119.6	119.6	117.5	119.6
Curtains, tailored, polyester marquisette		111.6	112.3	112.1	112.0	112.0	112.0	111.6	111.5	111.1	110.4	109.3	108.0	108.1	110.9
Bedspreads, chiefly cotton, tufted		115.0	117.6	117.7	117.1	116.9	115.7	116.5	116.9	117.3	117.3	116.3	113.5	111.2	116.2
Drapery fabric, cotton or rayon/acetate		125.0	126.6	126.0	124.1	124.5	125.0	124.8	122.2	122.1	121.3	121.1	120.1	119.7	123.1
Slipcovers, ready made, chiefly cotton	Dec. 63	111.0	110.4	110.0	111.1	110.0	110.3	110.1	109.6	109.4	109.3	108.6	108.0	108.4	109.6
Furniture and bedding		124.1	123.9	123.7	123.6	122.9	122.4	122.1	121.8	121.6	120.5	119.7	118.3	117.6	121.5
Bedroom suites, good or inexpensive quality		128.6	128.0	128.0	127.6	127.2	125.8	125.3	124.8	124.4	123.0	122.3	121.2	120.6	124.9
Living room suites, good and inexpensive quality		126.0	126.3	125.8	125.9	124.9	124.8	123.9	123.4	123.3	122.4	121.9	121.2	120.4	123.7
Lounge chairs, upholstered	Dec. 63	120.0	118.8	118.6	118.9	119.0	117.9	116.5	116.2	114.6	113.3	112.7	112.0	111.3	115.8
Dining room suites	Dec. 63	130.3	129.5	129.4	128.7	127.5	126.0	126.6	126.1	126.7	125.7	125.0	124.5	123.6	126.6
Sofas, upholstered	Dec. 63	116.3	116.5	115.7	115.9	114.8	115.1	114.3	113.8	114.3	113.3	112.7	112.0	112.1	114.2
Sofas, dual purpose		120.5	120.0	120.2	118.9	118.8	118.6	117.9	117.1	116.2	116.0	114.8	114.1	113.2	117.2
Box springs	Dec. 63	122.4	122.6	122.5	124.1	123.7	123.2	123.0	123.0	122.8	121.6	120.4	119.7	117.2	122.0
Cribs	Dec. 63	119.6	119.8	119.5	119.2	117.1	118.0	117.7	117.5	117.1	115.8	115.1	113.2	113.4	117.0
Floor coverings		106.8	107.1	107.1	107.1	107.0	106.3	106.4	106.2	106.2	106.2	106.1	106.1	105.8	106.5
Rugs, soft surface		104.0	104.7	104.8	104.9	104.9	104.1	104.4	104.1	104.2	104.4	104.4	104.5	104.0	104.5
Rugs, hard surface		113.2	112.5	112.5	112.1	111.8	111.6	111.5	111.2	111.1	110.3	110.0	110.0	110.0	111.2
Tile, vinyl	Dec. 63	110.3	110.3	110.1	109.6	109.3	108.5	108.2	108.0	108.0	107.7	107.2	106.8	107.3	108.4
Appliances		86.5	86.4	86.3	86.2	86.0	86.0	85.9	85.8	85.6	85.6	85.4	85.4	85.5	85.8
Washing machines, electric, automatic		91.8	91.5	91.2	90.9	91.0	90.8	90.5	90.5	90.2	90.1	89.9	90 0	90.0	90.6
Vacuum cleaners, canister type		81.8	81.4	81.4	81.5	81.3	82.1	82.0	81.8	81.4	81.2	81.1	81.1	81.2	81.5

See footnotes at end of table.

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

Index or group	Other index bases	1970	1969											Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
HOUSING—Continued															
Household furnishings and operation—Con.															
Appliances—Continued															
Refrigerators or refrigerator-freezers, electric		86.1	86.0	85.8	85.8	85.8	85.7	85.4	85.2	84.9	84.8	84.7	84.7	84.6	85.3
Ranges, free standing, gas or electric		99.0	99.0	98.8	98.5	98.1	98.2	97.6	97.4	97.0	97.1	97.1	96.5	96.6	97.7
Clothes dryers, electric, automatic	Dec. 63	100.8	100.6	100.5	99.8	99.6	99.7	99.5	99.5	99.1	98.9	98.8	98.4	98.6	99.4
Air conditioners, demountable	June 64	(1)	(1)	(1)	(1)	(2)	99.8	99.7	99.5	99.2	99.3	(2)	(2)	(2)	99.5
Room heaters, electric, portable	Dec. 63	100.6	100.4	99.8	99.6	(2)	(1)	(1)	(1)	(1)	(1)	98.0	97.5	97.7	98.8
Garbage disposal units	Dec. 63	105.5	105.0	105.0	104.7	104.3	103.9	103.9	103.9	103.6	103.1	102.8	103.2	103.0	103.9
Other house furnishings:															
Dinnerware, earthenware		136.2	135.6	135.2	134.8	134.3	133.5	133.6	132.7	132.5	132.2	132.0	131.8	130.9	133.3
Flatware, stainless steel	Dec. 63	119.2	119.0	119.6	119.6	119.8	119.6	119.5	118.9	118.1	118.1	117.0	117.0	118.2	118.7
Table lamps, with shade	Dec. 63	118.3	118.7	118.3	117.8	116.0	115.4	115.3	114.0	113.6	113.0	112.4	111.3	109.6	114.6
Housekeeping supplies:															
Laundry soaps and detergents		108.1	107.1	106.2	106.8	107.4	107.4	106.4	106.5	106.1	105.7	105.6	105.3	105.3	106.3
Paper napkins		129.8	131.0	130.0	129.0	128.6	128.0	127.2	128.1	127.1	127.0	127.5	127.6	127.0	128.2
Toilet tissue		121.9	120.3	121.2	121.2	120.7	119.1	119.5	119.8	118.0	117.7	116.8	116.5	116.1	118.9
Housekeeping services:															
Domestic service, general housework		180.5	179.9	178.7	177.6	175.1	173.9	172.9	172.2	171.9	171.1	170.2	169.8	168.7	173.5
Baby sitter service	Dec. 63	137.6	137.4	136.6	135.7	135.6	134.9	134.5	133.7	133.1	131.9	131.0	130.1	129.4	133.7
Postal charges		165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5
Laundry, flatwork, finished service	Dec. 63	147.5	146.8	144.3	143.2	142.7	141.4	140.6	140.2	139.6	139.0	137.9	136.6	134.4	140.6
Licensed day care service, preschool child	Dec. 63	132.0	131.8	131.8	130.7	130.3	129.7	128.4	128.1	127.2	125.3	124.1	123.7	123.4	127.9
Washing machine repairs	Dec. 63	136.6	135.4	135.1	135.2	134.4	133.5	133.0	131.6	131.0	129.2	129.0	127.3	125.8	131.7
APPAREL AND UPKEEP		129.3	130.8	130.7	129.8	128.7	126.6	126.8	127.0	126.6	125.6	124.9	123.9	123.4	127.1
Men's and boys'		130.8	132.0	132.1	131.0	130.0	128.7	128.1	128.5	128.1	127.3	126.4	125.3	124.9	128.5
Men's:															
Topcoats, wool		143.7	147.4	148.5	145.9	144.0	(1)	(1)	(1)	(1)	(1)	137.7	137.5	139.4	142.9
Suits, year round weight		154.2	158.2	158.2	156.4	154.5	150.7	149.6	150.0	150.1	148.1	146.8	144.6	144.1	150.9
Suits, tropical weight	June 64	(1)	(1)	(1)	(1)	(1)	(1)	127.7	130.8	130.0	128.1	126.2	(2)	(2)	128.6
Jackets, lightweight	Dec. 63	125.5	125.7	125.6	125.4	125.2	125.0	125.1	125.6	125.3	124.6	123.1	122.7	122.3	124.6
Slacks, wool or wool blend		130.0	131.2	131.7	130.4	128.9	127.1	126.1	126.6	126.3	126.5	125.3	123.4	125.1	127.4
Slacks, cotton or manmade blend		117.6	117.6	117.1	115.6	115.2	114.5	112.1	114.3	114.3	114.2	112.9	111.0	107.7	113.9
Trousers, work, cotton		116.0	117.2	117.0	116.9	116.9	116.8	116.9	116.7	116.5	116.0	115.5	115.1	115.2	116.4
Shirts, work, cotton		124.4	124.2	124.7	124.2	123.2	123.3	123.1	123.4	122.6	122.2	121.8	121.1	120.7	122.9
Shirts, business, cotton		122.5	122.3	122.2	122.2	121.8	121.6	121.5	121.7	121.3	120.5	120.4	120.1	120.5	121.3
T-shirts, chiefly cotton		132.4	131.9	131.8	131.5	130.6	130.6	130.1	129.4	128.8	129.0	129.2	128.7	127.9	130.0
Socks, cotton		120.9	120.9	120.4	121.1	121.6	121.6	121.1	120.5	119.4	118.9	118.1	117.5	116.6	119.8
Handkerchiefs, cotton	Dec. 63	113.8	113.8	113.3	112.9	112.7	112.4	112.3	112.3	111.5	111.6	111.4	110.9	109.9	112.1
Boys':															
Coats, all purpose, cotton or cotton blend	Dec. 63	114.2	116.1	115.9	115.2	113.5	(1)	(1)	(1)	(1)	(1)	108.7	108.2	109.2	112.4
Sport coats, wool or wool blend	Dec. 63	127.8	130.3	131.0	126.4	122.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	117.6	125.6
Dungarees, cotton or cotton blend		128.9	127.1	127.9	126.9	127.4	127.4	127.2	127.0	126.0	125.2	124.3	124.9	123.8	126.3
Undershorts, cotton		130.1	130.3	130.3	129.0	128.9	128.4	127.9	126.6	126.1	125.6	125.0	124.0	123.1	127.1
Women's and girls'		124.2	127.2	127.4	126.2	124.6	120.8	122.5	122.7	122.4	121.0	120.6	119.3	118.7	122.8
Women's:															
Coats, heavyweight, wool or wool blend		124.9	136.2	139.9	139.9	136.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	119.9	134.4
Skirts, wool or wool blend	Sept. 61	135.6	144.6	145.3	133.9	129.4	(1)	(1)	(1)	(1)	(1)	(1)	104.4	118.3	129.3
Skirts, cotton or cotton blend	Mar. 62	(1)	(1)	(1)	(1)	(1)	121.8	130.7	135.0	134.4	124.4	(2)	(1)	(1)	129.3
Blouses, cotton		126.9	127.6	127.2	125.4	122.7	122.2	122.4	122.7	123.4	123.2	123.1	121.2	121.9	123.6
Dresses, street, chiefly manmade fiber		155.9	158.3	158.8	155.9	152.5	147.3	147.6	147.3	147.7	148.8	148.4	146.3	143.7	150.2
Dresses, street, wool or wool blend		144.2	145.7	144.8	145.7	140.8	(1)	(1)	(1)	(1)	(1)	(1)	(1)	128.0	141.0
Dresses, street, cotton		(1)	(1)	(1)	(1)	(1)	136.6	149.9	150.6	150.5	148.5	(1)	(1)	(1)	147.2
Housedresses, cotton		152.3	153.0	152.1	150.7	149.0	150.0	148.8	149.6	147.3	146.4	144.2	142.5	141.3	147.9
Slips, nylon		113.4	112.3	112.2	111.9	111.9	111.6	109.7	110.5	110.1	110.3	109.4	109.4	109.8	110.8
Panties, acetate		112.0	111.2	111.4	110.5	109.9	109.1	108.6	108.4	108.8	108.5	107.9	108.1	107.9	109.2
Girdles, manmade blend		120.5	120.8	120.5	120.2	119.5	119.4	119.0	118.7	119.0	119.1	118.2	118.2	116.4	119.1
Brassieres, cotton	Dec. 63	124.4	124.9	123.8	123.1	122.9	122.5	122.2	122.0	120.8	120.7	119.4	119.1	118.8	121.7
Hose, nylon, seamless		98.5	99.8	99.8	99.4	99.2	98.8	99.6	99.0	99.1	98.7	99.1	98.0	98.2	99.1
Anklets, cotton	Dec. 63	121.0	121.5	118.5	118.5	118.4	118.2	118.1	117.6	116.6	115.2	114.7	114.6	114.0	117.2
Gloves, fabric, nylon or cotton	Dec. 63	110.7	110.5	109.8	109.2	109.0	109.3	108.9	108.9	108.6	108.4	107.8	106.7	105.7	108.6
Handbags, rayon faille or plastic	Dec. 63	116.4	117.3	117.2	115.5	114.8	114.1	113.8	113.7	113.0	112.1	111.4	110.8	109.7	113.6
Girls':															
Raincoats, vinyl plastic or chiefly cotton	Dec. 63	118.1	125.6	124.4	121.7	120.8	(1)	(1)	(1)	(1)	(1)	118.3	118.9	116.3	120.9
Skirts, wool or wool blend		117.4	123.2	123.4	124.0	(2)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	115.0	121.4

See footnotes at end of table.

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

Index or group	Other index bases	1970	1969											Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
APPAREL AND UPKEEP—Continued															
Women's and girls'—Continued															
Girls' Continued															
Dresses, cotton		129.8	133.6	136.3	137.4	136.9	135.4	134.2	133.9	134.1	134.1	133.5	132.5	130.6	134.4
Slacks, cotton	Dec. 63	128.4	131.8	131.7	127.9	(2)	(1)	(1)	(1)	(1)	(1)	(2)	117.7	119.9	125.8
Slips, cotton blend	Dec. 63	108.0	108.0	108.6	108.5	107.7	108.0	108.1	107.2	107.0	107.0	106.9	106.6	106.0	107.5
Handbags	Dec. 63	113.7	114.2	114.7	111.1	108.9	108.3	108.2	106.5	108.5	108.8	108.0	107.7	106.6	109.3
Footwear		144.4	144.4	143.9	143.3	142.3	141.5	139.9	140.1	139.6	138.4	137.6	136.8	136.3	140.3
Men's:															
Shoes, street, oxford		141.3	142.6	142.1	141.5	140.1	138.7	137.5	138.6	138.2	136.7	136.0	134.4	134.0	138.4
Shoes, work, high		140.9	139.8	139.5	139.0	138.4	138.1	137.3	136.8	136.1	135.2	134.5	133.5	132.6	136.7
Women's:															
Shoes, street, pump		151.8	152.7	152.5	152.0	150.8	149.9	147.3	147.9	148.0	147.2	145.9	144.9	144.0	148.6
Shoes, evening, pump	Dec. 63	124.2	123.2	122.9	122.9	122.3	121.8	121.0	120.0	119.1	118.0	117.9	117.4	117.1	120.3
Shoes, casual, pump	Dec. 63	134.2	134.0	133.4	132.0	129.6	128.9	126.8	128.2	127.1	125.5	123.3	122.5	121.5	127.7
Houseslippers, scuff	Dec. 63	128.0	127.5	127.1	126.6	126.4	125.4	123.9	124.0	123.9	123.4	123.0	122.7	122.1	124.7
Children's:															
Shoes, oxford		144.3	144.3	143.3	142.3	141.4	140.7	140.2	139.8	139.4	138.2	137.6	137.1	137.2	140.1
Sneakers, boys', oxford type	Dec. 63	119.6	119.5	119.3	119.1	118.9	118.1	116.9	116.2	115.8	115.8	115.7	115.7	115.5	117.2
Dress shoes, girls', strap	Dec. 63	136.6	136.4	135.7	134.6	134.1	133.1	130.6	131.9	130.7	129.1	127.6	127.7	127.0	131.5
Miscellaneous apparel:															
Diapers, cotton gauze		104.0	104.0	104.1	103.8	103.9	104.0	103.5	103.2	102.7	102.3	101.7	101.9	101.3	103.0
Yard goods, cotton		123.3	123.5	123.1	123.5	123.2	123.2	122.1	123.2	120.5	119.3	118.1	115.8	115.0	120.9
Apparel services:															
Drycleaning, men's suits and women's dresses		133.8	133.3	132.9	132.2	132.0	131.7	130.5	130.2	129.8	129.9	129.4	129.1	128.3	130.8
Automatic laundry service	Dec. 63	112.0	112.0	111.8	111.4	111.3	111.0	111.0	110.4	110.3	108.4	108.4	107.9	107.8	110.1
Laundry, men's shirts	Dec. 63	126.8	126.7	124.3	123.8	123.4	123.2	123.0	122.5	122.1	122.2	121.9	121.3	120.7	122.9
Tailoring charges, hem adjustment	Dec. 63	127.0	127.4	127.6	127.5	126.5	125.4	125.2	125.1	123.5	122.7	121.8	121.3	120.1	124.5
Shoe repairs, women's heel lift		124.6	123.7	123.6	122.7	123.1	121.3	121.1	120.4	120.1	120.1	119.6	119.6	120.7	121.3
TRANSPORTATION		127.3	126.4	125.6	125.7	123.6	124.2	124.3	124.6	124.0	124.6	124.3	122.0	120.7	124.2
Private		123.3	123.4	122.7	122.8	120.5	121.3	121.4	121.8	121.2	121.9	121.6	119.3	117.9	121.3
Automobiles, new		104.7	104.9	105.1	104.2	99.5	101.0	101.6	101.8	101.8	101.9	102.4	102.3	102.3	102.4
Automobiles, used		120.7	123.9	124.9	125.8	121.4	125.4	127.0	128.2	126.8	131.2	130.5	122.6	115.5	125.3
Gasoline, regular and premium		116.6	116.9	116.3	118.0	117.7	118.0	117.7	118.6	117.3	117.8	117.2	114.5	114.5	117.0
Motor oil, premium		140.7	140.2	140.1	139.6	139.1	138.7	138.1	137.4	136.7	136.0	135.5	134.6	134.1	137.5
Tires, new, tubeless		118.2	118.2	118.0	117.4	117.0	116.0	116.3	115.5	115.6	115.7	114.8	114.9	115.0	116.2
Auto repairs and maintenance		139.2	137.3	136.6	136.1	135.2	134.5	133.8	133.3	132.9	132.3	132.0	131.1	130.3	133.8
Auto insurance rates		173.4	171.5	164.6	163.7	163.2	160.3	159.0	158.7	158.1	157.2	156.1	155.7	154.7	160.2
Auto registration		140.3	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	133.5	130.7	131.0	133.6
Public		165.1	153.0	151.1	150.3	150.3	149.7	149.5	149.1	148.0	148.0	147.5	145.5	144.8	148.9
Local transit fares		183.3	163.2	163.0	161.7	161.7	160.8	160.5	159.9	159.6	159.6	158.6	158.4	157.3	160.4
Taxicab fares	Dec. 63	131.5	131.5	127.5	127.5	127.5	127.5	127.5	127.5	124.8	124.8	124.8	124.8	124.8	126.7
Railroad fares, coach		117.2	117.2	115.5	115.1	115.1	114.9	114.9	114.9	114.6	114.6	114.6	108.4	108.4	114.0
Airplane fares, chiefly coach	Dec. 63	117.4	117.4	111.6	111.6	111.6	112.1	112.1	112.1	110.7	110.7	110.7	103.3	103.3	110.6
Bus fares, intercity	Dec. 63	127.9	127.9	127.0	127.0	127.0	122.9	122.9	122.9	118.6	118.6	118.6	117.8	117.8	122.4
HEALTH AND RECREATION		140.1	139.6	139.1	138.6	138.4	137.7	137.0	136.3	135.7	135.1	134.3	133.7	133.3	136.6
Medical care		159.0	158.1	157.4	156.9	157.6	156.8	155.9	155.2	154.5	153.6	152.5	151.3	150.2	155.0
Drugs and prescriptions		99.7	99.6	99.6	99.4	99.3	99.3	99.2	99.3	99.3	99.0	98.8	98.6	98.6	99.2
Over-the-counter items	Dec. 63	107.2	107.1	107.1	106.9	106.9	107.0	106.9	107.1	107.0	103.8	106.6	106.4	106.7	106.9
Multiple vitamin concentrates	Dec. 63	92.3	92.8	92.4	92.5	92.4	92.4	92.1	92.2	92.4	92.2	92.2	92.2	92.9	92.4
Aspirin compounds	Dec. 63	106.2	106.6	106.2	106.1	105.5	106.8	106.4	106.6	106.2	105.3	106.5	105.6	105.2	106.2
Liquid tonics	Dec. 63	101.3	101.3	101.3	100.8	100.9	100.9	100.8	100.9	100.9	100.9	100.9	101.0	100.9	101.0
Adhesive bandages, package	Dec. 63	117.8	117.7	117.1	117.4	117.0	116.5	116.7	117.0	116.9	116.6	116.4	116.5	116.4	116.9
Cold tablets or capsules	Dec. 63	111.0	110.5	110.0	109.6	109.1	109.2	109.1	109.5	109.3	103.3	108.8	108.1	107.8	109.2
Cough syrup	Dec. 63	113.4	112.9	114.7	113.7	115.1	114.8	114.8	115.2	115.1	114.5	113.5	113.8	115.5	114.5
Prescriptions		89.3	89.1	89.0	89.0	88.8	88.7	88.6	88.6	88.6	88.3	88.2	88.0	87.8	88.6
Anti-infectives	Mar. 60	62.8	62.8	62.8	63.0	62.9	62.9	62.8	63.1	63.1	62.5	62.5	62.4	62.4	62.8
Sedatives and hypnotics	Mar. 60	110.6	110.4	109.6	108.9	107.8	107.6	107.1	106.9	106.4	106.1	105.9	105.0	104.3	107.2
Ataractics	Mar. 60	90.0	89.8	89.8	89.8	89.8	89.7	89.9	90.0	90.0	89.7	89.7	89.8	89.8	89.8
Anti-spamodics	Mar. 60	101.5	101.3	101.3	101.3	101.2	101.0	101.0	101.2	101.1	100.9	101.1	101.1	101.1	101.1
Cough preparations	Mar. 60	112.7	112.0	111.7	111.4	111.1	110.8	110.2	109.7	109.3	108.5	106.7	106.4	105.1	109.4
Cardiovasculars and antihypertensives	Mar. 60	98.3	98.0	98.0	97.9	97.7	97.6	97.1	97.0	96.9	96.9	96.5	95.9	95.4	97.1
Analgesics, internal	Mar. 67	104.3	103.3	103.2	103.1	103.1	103.1	102.9	102.8	103.0	103.0	102.4	102.1	101.8	102.8
Anti-obesity	Mar. 67	104.8	104.3	104.3	104.2	103.6	103.3	102.9	102.6	102.6	102.4	102.8	102.1	101.9	103.1
Hormones	Mar. 67	93.6	94.2	93.9	94.3	93.9	93.9	93.8	93.9	94.9	94.7	94.3	94.7	94.9	94.3
Professional services:															
Physicians' fees		160.7	160.0	159.0	158.3	158.0	156.8	156.0	155.5	154.3	153.3	152.6	151.1	149.7	155.4
Family doctor, office visits		163.1	162.4	161.0	160.6	160.3	158.7	158.3	157.6	155.8	154.9	154.1	152.0	151.0	157.2
Family doctor, house visits		167.9	167.6	166.2	165.9	165.6	163.9	163.8	163.4	162.9	162.4	161.5	158.8	157.6	163.3
Obstetrical cases		155.9	155.0	154.9	153.9	153.2	152.8	150.1	149.4	148.6	147.4	146.5	145.9	144.1	150.2
Pediatric care, office visits	Dec. 63	146.5	145.9	145.5	144.2	144.1	142.8	140.9	140.3	140.2	139.9	139.6	139.0	134.7	141.4
Psychiatrist, office visits	Dec. 63	133.0	132.6	132.6	131.7	131.7	130.9	129.3	129.6	129.2	126.6	125.5	125.2	123.7	129.1

See footnotes at end of table.

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

Index or group	Other index bases	1970	1969												Annual average 1969
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
HEALTH AND RECREATION—Continued															
Medical care—Continued															
Professional services—Continued															
Physicians' fees—Continued															
Herniorrhaphy, adult	Dec. 63	126.3	125.4	125.2	124.6	124.6	124.3	124.3	124.1	123.9	123.2	123.1	122.8	121.3	123.9
Tonsillectomy and adenoidectomy		152.3	151.6	151.3	149.3	149.1	149.0	148.1	147.8	147.3	146.5	146.4	146.3	145.5	148.2
Dentists' fees		148.0	147.6	147.2	146.9	146.0	145.5	144.9	144.2	143.6	142.9	140.1	139.4	138.9	143.9
Fillings, adult, amalgam, one surface		149.8	148.7	148.3	148.3	147.1	146.4	145.7	145.1	144.6	144.0	141.1	140.2	139.1	144.9
Extractions, adult		146.0	147.0	146.7	145.9	145.3	144.7	144.5	143.4	142.6	141.8	138.9	138.4	138.3	143.1
Dentures, full upper	Dec. 63	130.6	130.2	129.7	129.5	128.9	128.8	128.3	127.7	127.3	126.5	124.3	124.1	124.0	127.4
Other professional services:															
Examination, prescription, and dispensing of eyeglasses		134.6	133.9	133.8	132.8	132.4	132.2	131.7	131.2	130.8	129.5	128.9	128.5	127.8	131.1
Routine laboratory tests	Dec. 63	119.6	119.5	119.4	118.5	118.5	118.6	118.0	117.9	117.6	115.6	115.4	115.1	114.3	117.4
Hospital service charges:															
Daily service charges		271.6	267.9	265.4	263.8	261.9	259.9	256.7	253.8	252.4	251.4	249.2	246.2	243.1	256.0
Semiprivate rooms		268.0	264.1	261.7	260.1	258.4	25 .3	253.0	250.0	248.4	247.4	245.1	242.2	239.0	252.1
Private rooms		261.8	258.7	256.1	254.7	252.6	250.8	247.9	245.5	244.4	243.5	241.6	238.4	235.8	247.5
Operating room charges	Dec. 63	172.8	170.9	170.6	170.9	168.7	167.6	166.4	165.6	164.8	163.0	160.4	158.1	155.1	165.2
X-ray, diagnostic series, upper G.I	Dec. 63	124.7	124.7	124.5	124.8	124.6	123.2	122.7	122.3	122.1	121.8	121.4	120.3	119.9	122.7
Personal care		128.5	128.1	127.8	127.3	127.3	126.8	126.6	126.2	125.8	125.5	124.8	124.1	123.7	126.2
Toilet goods		112.0	111.6	111.8	111.6	111.7	111.4	111.2	110.9	110.4	110.4	109.8	109.2	108.7	110.7
Toothpaste, standard dentifrice		114.1	114.6	114.7	114.4	113.8	113.4	112.9	113.6	113.2	114.1	113.9	113.3	112.8	113.7
Toilet soap, hard milled		123.0	123.4	124.8	125.1	126.3	123.3	125.1	123.6	123.9	124.2	123.9	123.5	122.6	124.1
Hand lotions, liquid	Dec. 63	109.2	109.1	109.7	110.7	111.1	111.2	110.4	109.0	107.7	107.0	106.4	105.4	105.1	108.6
Shaving cream, aerosol		102.1	101.9	101.6	102.0	102.1	102.1	101.4	102.3	102.3	101.9	101.9	102.4	102.6	102.0
Face powder, pressed		128.1	127.6	127.5	127.2	126.8	126.6	126.1	125.0	124.0	124.4	123.1	121.4	120.4	125.0
Deodorants, cream or roll-on	Dec. 63	96.0	94.5	95.0	95.1	95.3	95.5	95.0	94.9	95.4	95.1	94.9	93.9	93.9	94.9
Cleansing tissues		113.8	112.5	111.8	109.2	108.4	109.3	109.3	108.7	107.9	108.0	107.1	106.8	106.2	108.8
Home permanent refills		98.6	98.7	98.6	98.5	99.2	99.1	98.8	99.3	98.4	97.5	96.6	96.0	95.4	98.0
Personal care services		148.9	148.5	147.5	146.7	146.5	145.8	145.5	144.9	144.7	144.2	143.2	142.5	142.1	145.2
Men's haircuts		158.0	157.8	156.4	155.2	154.8	154.5	154.7	153.8	153.1	152.3	151.7	150.5	150.0	153.7
Beauty shop services		139.2	138.8	138.0	137.7	137.5	136.6	136.0	135.6	135.7	135.4	134.2	133.9	133.5	136.1
Women's haircuts	Dec. 63	125.3	125.2	124.0	123.4	123.2	121.9	121.2	120.9	121.7	121.4	120.7	120.5	120.3	122.0
Shampoo and wave sets, plain		156.8	156.3	155.3	154.9	154.6	153.6	152.8	152.3	152.1	151.7	150.1	149.7	149.0	152.7
Permanent waves, cold		107.5	107.2	107.2	107.1	107.0	106.9	106.7	106.5	106.5	106.1	105.4	105.3	105.1	106.4
Reading and recreation		133.1	132.7	132.3	132.0	131.6	131.2	130.7	130.4	130.2	129.6	128.7	128.4	128.4	130.5
Recreational goods	Dec. 63	99.1	99.1	99.2	99.1	99.0	98.8	98.7	98.6	98.6	98.4	97.9	97.7	97.8	98.6
TV sets, portable and console		80.0	80.2	80.3	80.2	80.0	79.7	79.8	80.0	80.1	80.1	79.8	80.1	80.3	80.1
TV replacement tubes	Dec. 63	116.6	116.3	116.3	115.9	115.7	115.4	115.6	115.8	115.6	115.3	114.8	114.7	114.8	115.5
Radios, portable and table model		76.4	76.5	76.5	76.6	76.9	76.5	76.5	76.6	76.6	76.5	76.3	76.3	76.7	76.5
Tape recorders, portable	Dec. 63	90.0	90.1	91.2	91.4	91.5	91.4	91.5	91.9	91.7	91.7	91.2	91.1	90.6	91.3
Phonograph records, stereophonic	Dec. 63	98.0	98.0	98.0	98.1	97.6	97.7	97.9	97.5	97.5	96.6	96.4	95.9	95.6	97.2
Movie cameras, Super 8, zoom lens	Dec. 63	82.1	82.3	83.4	83.1	83.5	83.4	83.5	84.1	85.0	84.9	84.8	84.5	85.0	84.0
Film, 35mm, color	Dec. 63	99.1	99.1	99.1	99.4	99.6	99.2	99.1	99.0	99.0	98.9	98.9	98.6	98.6	99.0
Bicycle, boys'	Dec. 63	110.7	110.4	110.0	109.7	109.9	109.5	109.7	109.1	109 0	108.6	107.8	107.3	107.2	109.0
Tricycles	Dec. 63	112.0	111.6	111.4	111.9	111.6	111.2	109.4	109.2	108.5	107.9	107.5	107.2	107.8	109.6
Recreational services	Dec. 63	133.9	133.2	132.6	132.1	131.7	131.1	130.1	129.7	129.2	128.7	127.1	126.7	126.6	129.9
Indoor movie admissions		211.7	210.3	208.3	207.0	206.5	204.2	200.2	198.3	197.4	196.3	193.2	192.6	192.6	200.6
Adult		207.3	205.4	203.2	201.9	201.6	198.8	194.4	192.9	192.0	191.5	188.6	188.2	187.9	195.5
Children's		226.9	227.1	225.4	224.5	223.2	222.1	219.6	216.7	215.6	212.5	208.6	207.4	208.5	217.6
Drive-in movie admissions, adult	Dec. 63	165.6	165.5	165.0	164.5	164.1	163.5	161.9	160.1	157.0	156.0	153.1	153.6	153.9	159.9
Bowlng fees, evening	Dec. 63	115.3	113.7	113.6	112.1	110.9	110.3	110.4	110.6	110.6	110.8	110.4	110.1	109.8	111.1
Golf greens fees	Dec. 63	(1)	(1)	(1)	135.5	135.9	135.8	134.7	134.6	133.8	130.9	127.3	125.0	124.8	131.8
TV repairs, picture tube replacement		100.2	100.2	100.0	101.4	101.0	101.0	101.0	102.2	102.3	103.3	102.7	102.6	102.6	101.7
Film developing, black and white	Dec. 63	117.4	117.7	117.9	117.9	118.3	118.4	118.9	119.2	120.0	120.5	120.2	120.0	120.1	119.1
Reading and education:															
Newspapers, street sale and delivery		160.2	158.2	156.7	156.4	155.9	155.8	155.2	154.3	153.7	153.2	152.7	152.3	152.1	154.7
Piano lessons, beginner	Dec. 63	127.6	127.3	126.7	126.5	126.1	123.8	122.8	122.3	122.2	122.2	121.7	121.6	121.3	123.7
Other goods and services		133.9	133.5	133.1	132.2	131.3	130.1	129.1	127.9	126.9	126.6	126.1	125.8	125.6	129.0
Tobacco products		154.1	153.8	153.1	151.5	150.6	148.7	146.7	144.0	142.3	142.1	141.8	141.7	141.6	146.5
Cigarettes, nonfilter tip, regular size		161.8	161.4	160.7	158.9	158.0	155.8	153.7	150.8	149.3	149.1	148.7	148.6	148.5	153.6
Cigarettes, filter tip, king size	Mar. 59	154.0	153.5	152.6	151.0	150.0	148.1	146.2	143.4	141.0	140.9	140.7	140.5	140.5	145.7
Cigars, domestic, regular size		109.0	110.0	109.9	109.4	109.6	108.7	107.1	106.5	106.1	106.0	105.9	105.9	105.6	107.6
Alcoholic beverages		121.0	120.6	120.4	120.0	119.1	118.2	117.7	117.4	116.8	116.5	115.9	115.6	115.3	117.8
Beer		116.5	116.5	116.6	116.3	116.4	115.3	114.8	114.5	114.2	113.9	113.5	113.0	112.8	114.8
Whiskey, spirit blended and straight bourbon		111.2	111.5	111.4	111.3	110.4	110.1	109.8	109.4	109.2	109.2	108.9	108.9	109.0	109.9
Wine, dessert and table	Dec. 63	116.5	115.2	114.5	113.6	112.0	110.6	110.2	109.5	108.8	108.6	108.0	107.8	107.4	110.5
Beer, away from home	Dec. 63	127.1	125.9	125.6	125.0	123.0	122.3	121.8	121.5	120.5	119.9	118.9	118.8	118.1	121.8
Financial and miscellaneous personal expenses:															
Funeral services, adult	Dec. 63	117.7	117.4	117.3	116.9	116.5	115.9	115.5	115.2	114.6	114.0	113.6	113.1	112.5	115.2
Bank service charges, checking accounts	Dec. 63	110.2	110.3	109.9	109.1	108.3	10 .4	108.2	108.2	107.9	107.8	107.5	107.4	106.9	108.3
Legal services, short form will	Dec. 63	142.3	141.2	139.5	139.5	138.8	137.8	135.0	134.5	132.9	130.8	129.5	128.2	128.3	134.7

[1] Priced only in season.
[2] Not available.

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

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

[1957–59=100 unless otherwise specified]

Area[2]	1970	1969											Annual avg.
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1968
All items														
U.S. city average[3]	131.8	131.3	130.5	129.8	129.3	128.7	128.2	127.6	126.8	126.4	125.6	124.6	124.1	121.2
Atlanta, Ga.	(4)	129.9	(4)	(4)	128.6	(4)	(4)	126.1	(4)	(4)	124.9	(4)	(4)	119.6
Baltimore, Md.	(4)	131.9	(4)	(4)	130.4	(4)	(4)	127.9	(4)	(4)	125.7	(4)	(4)	120.9
Boston, Mass.	136.1	(4)	(4)	134.7	(4)	(4)	132.1	(4)	(4)	129.8	(4)	(4)	127.9	124.7
Buffalo, N.Y. (Nov. 1963=100)	(4)	(4)	123.2	(4)	(4)	121.2	(4)	(4)	120.2	(4)	(4)	117.3	(4)	114.8
Chicago, Ill.–Northwestern Ind.	129.1	128.3	127.7	126.9	127.2	126.1	125.3	124.6	123.6	123.2	122.9	121.9	121.4	118.5
Cincinnati, Ohio–Kentucky	(4)	127.7	(4)	(4)	125.5	(4)	(4)	124.6	(4)	(4)	122.7	(4)	(4)	118.9
Cleveland, Ohio	(4)	(4)	129.5	(4)	(4)	127.3	(4)	(4)	125.3	(4)	(4)	123.1	(4)	119.6
Dallas, Tex. (Nov. 1963=100)	(4)	(4)	123.7	(4)	(4)	121.2	(4)	(4)	119.4	(4)	(4)	116.8	(4)	113.0
Detroit, Mich.	131.1	130.8	129.8	129.2	128.6	128.5	127.6	127.3	126.4	125.7	125.1	123.4	122.8	119.8
Honolulu, Hawaii (Dec. 1963=100)	(4)	119.7	(4)	(4)	118.1	(4)	(4)	116.6	(4)	(4)	115.6	(4)	(4)	111.9
Houston, Tex.	130.9	(4)	(4)	129.8	(4)	(4)	127.0	(4)	(4)	125.5	(4)	(4)	123.2	119.3
Kansas City, Mo.–Kansas	(4)	133.2	(4)	(4)	131.4	(4)	(4)	130.4	(4)	(4)	128.1	(4)	(4)	123.5
Los Angeles–Long Beach, Calif.	131.2	131.1	130.0	130.1	129.6	128.9	128.6	127.9	126.9	126.9	126.6	125.2	124.7	122.2
Milwaukee, Wis.	(4)	(4)	127.0	(4)	(4)	123.9	(4)	(4)	122.8	(4)	(4)	120.8	(4)	116.8
Minneapolis–St. Paul, Minn.	132.8	(4)	(4)	130.3	(4)	(4)	128.0	(4)	(4)	125.1	(4)	(4)	122.9	121.2
New York, N.Y.–Northeastern N.J.	137.0	136.0	134.6	134.1	133.5	132.5	132.1	131.6	130.8	130.5	129.6	128.3	127.8	124.1
Philadelphia, Pa.–N.J.	132.9	132.2	131.7	131.2	131.0	130.2	129.2	128.2	127.5	127.6	127.0	126.0	125.2	122.4
Pittsburgh, Pa.	129.4	(4)	(4)	128.5	(4)	(4)	127.7	(4)	(4)	126.0	(4)	(4)	124.0	120.4
Portland, Oreg.–Wash.[5]	130.7	(4)	(4)	130.1	(4)	(4)	128.4	(4)	(4)	127.9	(4)	(4)	125.3	122.3
St. Louis, Mo.–Ill.	(4)	130.7	(4)	(4)	129.2	(4)	(4)	127.0	(4)	(4)	125.4	(4)	(4)	121.5
San Diego, Calif. (Feb. 1965=100)	(4)	(4)	117.0	(4)	(4)	116.0	(4)	(4)	114.4	(4)	(4)	112.8	(4)	109.4
San Francisco–Oakland, Calif.	(4)	134.5	(4)	(4)	132.8	(4)	(4)	130.8	(4)	(4)	128.9	(4)	(4)	124.3
Scranton, Pa.[5]	(4)	(4)	127.3	(4)	(4)	130.5	(4)	(4)	128.1	(4)	(4)	126.2	(4)	122.8
Seattle, Wash.	(4)	(4)	130.0	(4)	(4)	129.5	(4)	(4)	127.6	(4)	(4)	125.9	(4)	122.3
Washington, D.C.–Md.–Va.	(4)	(4)	132.0	(4)	(4)	130.8	(4)	(4)	128.8	(4)	(4)	126.3	(4)	122.0
Food														
U.S. city average[3]	130.7	129.9	128.1	127.2	127.5	127.4	126.7	125.5	123.7	123.2	122.4	121.9	122.0	119.3
Atlanta, Ga.	129.0	128.4	126.9	126.5	126.7	126.3	124.4	122.8	121.2	121.8	120.7	120.0	119.7	117.2
Baltimore, Md.	134.9	134.1	132.3	131.5	131.8	130.8	130.1	127.9	126.2	126.3	125.3	124.1	124.8	121.3
Boston, Mass.	134.3	133.1	131.6	131.2	131.4	131.8	130.2	129.5	127.8	127.5	126.3	126.0	125.1	122.7
Buffalo, N.Y. (Nov. 1963=100)	125.4	125.1	122.8	121.9	121.8	122.5	122.4	121.2	118.9	118.2	117.4	117.2	117.5	114.6
Chicago, Ill.–Northwestern Ind.	132.8	131.3	129.4	128.3	130.2	130.5	129.0	127.5	125.3	124.4	123.9	123.0	124.0	120.4
Cincinnati, Ohio–Kentucky	127.2	126.6	125.1	124.1	123.6	123.2	123.3	121.9	120.7	120.2	119.1	118.8	118.7	116.3
Cleveland, Ohio	129.0	128.5	125.7	125.0	125.1	125.2	123.3	123.2	122.3	120.1	119.6	120.0	119.9	116.7
Dallas, Tex. (Nov. 1963=100)	125.0	124.2	122.8	121.7	122.0	121.9	120.6	120.1	118.2	116.9	116.5	116.2	116.7	113.7
Detroit, Mich.	129.8	129.3	126.8	126.1	126.5	127.3	126.5	124.5	122.7	121.9	120.8	119.9	119.5	117.6
Honolulu, Hawaii (Dec. 1963=100)	123.0	120.8	119.5	119.7	119.1	118.0	116.9	116.3	116.1	115.8	115.7	115.7	115.6	112.2
Houston, Tex.	132.3	131.2	129.2	128.7	129.2	129.0	127.7	126.8	125.2	124.3	124.3	123.8	123.4	119.7
Kansas City, Mo.–Kansas	135.1	134.4	132.9	131.2	131.9	131.3	130.7	129.8	127.5	126.6	125.6	125.5	125.0	122.7
Los Angeles–Long Beach, Calif.	126.2	125.8	124.7	124.0	124.0	123.9	124.0	123.0	121.6	121.2	120.3	119.6	119.6	117.5
Milwaukee, Wis.	129.5	128.4	127.8	127.6	127.9	127.6	126.5	125.1	123.3	122.9	122.0	121.4	121.4	118.2
Minneapolis–St. Paul, Minn.	129.5	128.2	127.2	126.5	125.9	126.4	125.4	122.8	121.3	120.7	120.2	119.3	120.5	117.3
New York, N.Y.–Northeastern N.J.	133.8	132.9	130.6	129.6	129.1	128.7	128.1	126.6	124.9	124.7	123.6	123.1	123.3	120.2
Philadelphia, Pa.–N.J.	130.7	129.7	128.0	127.0	127.2	127.2	126.0	124.5	123.1	124.3	123.2	122.9	122.7	119.6
Pittsburgh, Pa.	127.5	127.1	125.7	123.3	123.2	123.9	124.2	123.2	120.9	119.6	119.2	118.7	119.6	115.9
Portland, Oreg.–Wash.[5]	126.7	------	------	124.4	------	------	125.2	------	------	122.7	------	------	122.5	119.3
St. Louis, Mo.–Ill.	136.6	135.5	133.5	132.4	132.6	131.2	129.8	128.6	126.9	126.4	125.8	125.2	125.8	123.5
San Diego, Calif. (Feb. 1965=100)	120.6	120.0	119.1	117.8	118.3	118.6	118.7	118.1	116.4	115.3	114.5	113.8	113.4	111.3
San Francisco–Oakland, Calif.	128.2	127.2	126.2	125.6	124.9	124.9	125.9	124.3	122.7	122.3	121.4	120.2	120.1	118.4
Scranton, Pa.	------	------	131.9	------	------	127.5	------	------	123.4	------	------	121.6	------	118.4
Seattle, Wash.	127.8	127.6	126.2	125.2	125.9	126.2	125.8	125.0	123.6	123.2	122.3	121.5	121.4	118.8
Washington, D.C.–Md.–Va.	134.8	133.5	131.2	130.5	131.6	132.5	131.3	129.1	128.3	127.6	126.3	126.0	125.5	121.3

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

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

[3] Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places beginning January 1965).

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

[5] Old series.

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

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

Code	Commodity Group	1970	1969											Annual average 1968
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
	ALL COMMODITIES	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	111.9	111.7	111.1	110.7	108.7
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS	118.2	116.4	115.7	114.3	114.3	114.6	115.5	115.5	114.1	110.9	110.7	110.0	109.8	107.6
	INDUSTRIAL COMMODITIES	115.1	114.6	114.2	113.8	113.2	112.8	112.4	112.2	112.2	112.1	112.0	111.4	110.9	109.0
	FARM PRODUCTS, AND PROCESSED FOODS AND FEEDS														
01	**Farm products**	112.5	111.7	111.1	107.9	108.4	108.9	110.5	111.2	110.5	105.6	106.5	105.0	104.9	102.2
01-1	Fresh and dried fruits and vegetables	116.6	112.4	125.3	101.3	103.4	106.7	103.1	112.9	126.7	106.8	112.1	108.7	112.0	108.2
01-2	Grains	85.9	82.9	81.7	84.8	83.4	81.9	83.7	85.6	86.7	83.1	81.6	82.0	82.5	81.9
01-3	Livestock	117.3	120.2	116.6	118.7	119.2	123.6	126.8	130.4	123.0	113.8	112.5	109.2	106.1	104.8
01-4	Live poultry	94.8	86.9	86.3	85.3	89.0	92.3	90.2	89.8	90.7	87.0	95.5	94.3	90.5	84.9
01-5	Plant and animal fibers	65.3	65.7	66.0	66.1	66.4	66.9	67.7	67.7	67.7	67.3	67.3	67.7	68.8	75.4
01-6	Fluid milk	140.5	138.3	137.6	136.8	135.6	135.1	134.9	134.6	134.1	133.5	132.8	132.6	131.8	128.8
01-7	Eggs	152.2	155.8	139.8	113.8	122.5	100.5	117.0	85.9	80.6	97.3	110.9	108.1	122.3	93.9
01-8	Hay, hayseeds, and oilseeds	107.7	105.1	103.4	101.2	105.7	107.3	111.3	110.6	115.1	113.8	112.5	112.4	111.5	111.5
01-9	Other farm products	116.3	113.1	115.9	116.7	110.6	109.5	106.9	106.2	105.6	106.1	106.8	106.4	105.9	103.1
02	**Processed foods and feeds**	125.1	122.6	121.8	121.6	121.3	121.5	122.0	121.4	119.4	117.3	116.4	116.3	116.0	114.1
02-1	Cereal and bakery products	122.3	122.0	121.9	121.2	120.4	120.1	119.9	119.7	119.4	119.3	119.3	119.3	119.3	118.2
02-2	Meats, poultry, and fish	125.8	121.9	120.5	120.2	122.9	124.5	127.5	126.5	121.0	114.0	112.2	111.4	111.1	108.3
02-3	Dairy products	133.9	133.9	131.2	130.7	133.4	133.0	133.0	133.0	132.5	131.4	130.4	130.2	130.1	127.7
02-4	Processed fruits and vegetables	116.9	116.4	116.3	116.0	116.6	116.8	116.6	115.6	115.7	115.4	115.1	114.5	113.6	114.1
02-5	Sugar and confectionery	129.1	127.1	127.9	127.7	127.2	127.2	122.3	123.0	122.7	120.2	119.5	119.2	119.2	115.8
02-6	Beverages and beverage materials	117.4	116.1	116.0	115.0	113.1	112.6	112.6	112.4	111.8	111.4	111.3	111.1	110.8	109.6
02-71	Animal fats and oils	111.0	115.6	123.0	118.3	104.0	105.0	96.4	91.2	89.0	90.8	96.1	90.3	84.0	69.6
02-72	Crude vegetable oils	86.4	86.1	97.0	88.4	79.8	80.0	80.0	81.9	81.0	80.6	83.0	83.4	80.4	84.5
02-73	Refined vegetable oils	97.8	97.9	91.1	88.9	85.0	84.7	89.4	89.4	89.4	89.4	91.6	95.0	91.5	94.4
02-74	Vegetable oil end products	107.5	108.0	106.5	104.7	102.1	102.1	102.1	103.3	103.3	103.3	103.1	102.9	101.1	100.2
02-8	Miscellaneous processed foods	126.5	126.4	127.2	131.6	121.2	119.8	119.5	118.6	118.6	119.0	119.3	119.1	118.2	115.5
02-9	Manufactured animal feeds	131.7	121.8	119.5	119.9	119.3	118.2	118.7	116.9	114.9	118.3	115.7	117.5	118.2	118.5
	INDUSTRIAL COMMODITIES														
03	**Textile products and apparel**	109.5	109.2	109.2	109.1	109.0	108.7	107.7	107.2	106.9	107.1	107.1	107.2	107.4	105.7
03-1	Cotton products	106.1	106.1	106.0	105.8	105.9	105.7	105.3	104.5	104.6	104.5	104.6	104.8	104.8	105.1
03-2	Wool products	104.3	104.3	104.6	104.5	105.0	104.8	105.0	105.0	104.3	104.3	104.2	104.4	104.7	103.7
03-3	Manmade fiber textile products	91.5	91.1	91.5	91.6	92.1	92.7	92.6	92.7	92.6	92.4	92.1	92.3	92.8	90.8
03-41	Silk yarns	193.5	191.1	184.6	183.9	181.2	177.1	168.2	164.6	157.9	155.4	155.0	156.4	160.8	183.0
03-5	Apparel	117.2	116.9	116.7	116.5	116.2	115.8	113.9	113.3	112.9	113.0	112.8	112.7	112.7	110.3
03-6	Textile housefurnishings	109.1	108.1	108.0	108.0	107.3	104.7	104.2	104.2	103.2	107.7	107.7	107.6	110.2	110.5
03-7	Miscellaneous textile products	129.0	127.8	129.6	127.2	121.4	119.6	120.3	118.0	114.7	119.7	121.9	127.1	126.2	115.5
04	**Hides, skins, leather, and related products**	126.6	126.5	126.8	127.4	128.2	126.4	126.4	125.7	126.1	126.0	123.4	123.4	123.5	119.5
04-1	Hides and skins	102.8	108.9	110.4	118.0	128.7	123.1	123.0	117.4	122.6	125.8	109.1	106.3	109.2	99.6
04-2	Leather	119.6	119.7	119.6	120.3	121.7	121.0	121.2	121.5	121.7	122.3	116.4	116.5	116.8	112.6
04-3	Footwear	135.9	135.0	135.5	135.2	134.9	132.7	132.7	132.3	132.1	131.9	131.5	132.2	132.1	128.0
04-4	Other leather and related products	119.2	118.5	118.6	118.4	117.9	117.6	117.5	117.2	117.0	116.0	115.3	114.8	114.2	112.7
05	**Fuels and related products and power**	105.6	106.1	105.5	105.4	104.7	104.7	105.0	105.0	104.5	104.5	104.2	102.7	102.4	102.4
05-1	Coal	125.4	124.6	123.5	120.6	115.9	115.5	115.4	114.2	113.5	112.8	112.7	112.7	112.7	106.7
05-2	Coke	126.9	126.9	126.9	126.9	120.3	120.3	120.3	120.3	120.3	120.3	120.3	120.3	120.3	116.0
05-3	Gas fuels (Jan. 1958=100)	132.4	131.8	128.8	128.7	123.0	121.8	121.6	121.8	121.6	121.8	124.6	124.0	124.4	123.8
05-4	Electric power (Jan. 1958=100)	103.4	103.4	103.4	103.7	103.5	102.4	102.5	102.6	102.5	102.3	102.3	102.2	102.0	101.5
05-61	Crude petroleum	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.7	104.8	103.7	99.9	99.7	99.4
05-7	Petroleum products, refined	101.0	102.2	101.6	101.6	101.8	102.5	103.2	103.3	102.4	102.5	101.7	99.5	98.9	100.3
06	**Chemicals and allied products**	99.1	98.8	98.9	98.6	98.9	98.7	98.2	98.3	98.1	97.9	98.0	97.8	97.6	98.2
06-1	Industrial chemicals	97.9	97.8	97.8	97.6	98.2	98.2	97.7	97.0	96.9	96.7	97.9	98.1	98.1	98.4
06-21	Prepared paint	121.7	120.3	120.3	120.3	119.2	119.2	119.2	119.2	118.7	118.7	118.7	118.2	118.2	114.6
06-22	Paint materials	93.4	93.4	93.1	93.9	93.3	93.3	93.2	92.8	92.8	92.2	91.9	92.0	92.0	92.2
06-3	Drugs and pharmaceuticals	94.5	94.6	94.2	94.0	94.0	93.8	93.8	93.8	93.8	93.7	93.6	93.4	93.4	93.3
06-4	Fats and oils, inedible	95.0	92.8	100.5	98.9	102.1	99.3	90.5	86.8	83.3	83.7	80.4	73.6	72.2	73.9
06-5	Agricultural chemicals and chem. products	87.6	86.7	86.7	86.3	87.4	88.4	88.6	92.1	92.1	92.1	92.3	92.2	92.9	99.7
06-6	Plastic resins and materials	80.0	80.1	79.6	80.2	81.0	80.7	80.2	80.8	80.8	80.9	81.3	81.5	80.8	82.0
06-7	Other chemicals and allied products	115.5	115.1	114.9	114.3	113.9	112.9	112.8	112.8	112.7	112.2	111.2	111.1	110.4	110.0
07	**Rubber and plastics products**	104.7	104.5	104.4	104.3	103.5	102.7	103.0	102.5	101.2	101.1	101.2	100.9	100.5	100.0	100.3
07-11	Crude rubber	89.3	88.1	88.7	89.7	90.6	92.5	90.7	89.7	89.5	90.1	88.9	87.5	86.4	84.9
07-12	Tires and tubes	101.7	101.7	101.7	100.6	99.2	99.2	98.4	96.3	96.3	96.3	96.3	96.3	96.3	99.2
07-13	Miscellaneous rubber products	114.0	113.4	113.0	111.7	110.7	110.8	111.0	110.2	110.2	110.1	109.7	109.5	108.7	107.4
07-21	Plastic construction products (Dec. 1969=100)	99.8	100.0	----	----	----	----	----	----	----	----	----	----	----	----
08	**Lumber and wood products**	121.6	122.5	123.9	122.6	123.2	124.0	125.3	129.8	138.0	143.3	149.5	144.5	137.8	119.3
08-1	Lumber	126.9	128.2	129.3	128.0	129.5	131.1	133.4	142.3	155.9	164.9	164.7	155.8	147.9	127.2
08-2	Millwork	131.5	131.7	133.2	133.9	134.4	135.1	135.6	136.0	134.3	132.3	128.8	126.7	124.8	118.5
08-3	Plywood	95.5	96.9	99.6	95.8	94.4	93.6	93.9	94.2	103.5	111.0	146.9	146.5	135.0	103.1
08-4	Other wood products (Dec. 1966=100)	119.5	118.4	116.7	116.7	116.5	116.8	115.6	115.1	114.7	112.6	112.4	111.2	111.0	106.7

See footnotes at end of table.

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

[1957=100 unless otherwise specified][2]

Code	Commodity Group	1970	1969											Annual average 1968
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
	INDUSTRIAL COMMODITIES—Continued														
09	**Pulp, paper, and allied products**	111.1	109.5	109.3	109.0	108.8	108.7	108.4	108.3	108.1	108.0	107.4	106.8	106.2	105.2
09-1	Pulp, paper, and products, excluding building paper and board	111.8	110.1	109.9	109.6	109.3	109.2	108.9	108.6	108.3	108.3	107.7	107.1	106.6	105.6
09-11	Woodpulp	103.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
09-12	Wastepaper	107.5	106.7	107.0	107.2	108.4	110.3	111.2	108.8	107.1	109.1	108.1	107.8	107.4	101.5
09-13	Paper	120.3	117.4	117.0	116.5	116.5	117.2	117.1	117.0	116.7	116.4	116.1	115.7	115.0	112.7
09-14	Paperboard	96.0	96.0	96.0	95.9	95.9	95.8	93.7	93.5	93.5	93.5	93.6	92.6	92.2	92.2
09-15	Converted paper and paperboard products	111.9	110.7	110.6	110.3	109.8	109.2	109.0	108.7	108.4	108.3	107.6	106.8	106.3	105.9
09-2	Building paper and board	93.4	93.9	94.4	94.6	95.1	95.2	95.9	99.4	100.7	100.4	99.6	98.2	97.3	92.8
10	**Metals and metal products**	124.9	123.8	122.9	122.4	121.7	120.4	118.7	117.9	117.5	116.5	115.8	115.2	114.4	112.4
10-1	Iron and steel	114.6	113.9	113.7	113.7	113.2	112.7	111.1	110.3	109.9	108.9	108.8	108.0	107.5	105.5
10-13	Steel mill products	115.5	116.4	116.4	116.4	115.5	115.4	113.6	112.8	112.7	111.9	111.7	110.7	110.4	108.5
10-2	Nonferrous metals	152.8	150.1	146.4	144.8	143.5	139.5	136.1	135.5	134.2	132.4	129.9	128.9	127.2	125.3
10-3	Metal containers	120.6	120.6	120.6	120.6	120.3	119.7	119.7	119.7	119.7	119.7	119.4	119.4	117.0	116.0
10-4	Hardware	124.2	123.0	122.7	122.2	121.0	120.6	120.5	119.9	119.9	119.9	119.1	119.0	118.5	116.9
10-5	Plumbing fixtures and brass fittings	122.8	122.8	122.2	120.8	120.2	119.4	119.4	117.9	117.1	116.6	116.6	116.1	115.8	114.1
10-6	Heating equipment	99.7	99.7	99.3	98.7	98.0	97.7	97.7	97.2	97.0	96.8	96.6	96.3	96.1	94.9
10-7	Fabricated structural metal products	114.0	113.7	113.6	113.4	112.8	112.6	112.0	111.0	110.8	110.2	109.6	109.4	109.3	107.6
10-8	Miscellaneous metal products	124.9	124.5	124.4	124.4	124.2	123.2	121.3	120.7	120.5	120.4	120.4	120.4	119.6	116.1
11	**Machinery and equipment**	122.5	121.9	121.0	120.5	119.9	119.1	119.0	118.6	118.3	118.0	117.8	117.3	117.0	115.2
11-1	Agricultural machinery and equipment	136.7	136.4	135.8	133.2	133.0	132.3	132.3	132.0	131.9	131.8	131.7	131.6	131.2	127.1
11-2	Construction machinery and equipment	140.2	139.8	138.6	137.7	136.1	134.9	134.8	134.5	134.3	134.1	134.0	133.6	133.5	129.6
11-3	Metalworking machinery and equipment	138.6	138.0	136.5	135.4	134.4	133.5	133.3	132.3	132.1	131.8	131.4	131.1	131.0	128.6
11-4	General purpose machinery and equipment	126.1	124.8	123.7	123.4	122.6	121.8	121.5	121.2	120.3	120.0	119.8	119.1	118.5	117.2
11-6	Special industry machinery and equipment (Jan. 1961=100)	133.3	132.8	130.6	130.2	129.6	129.2	129.2	128.1	128.0	127.2	126.9	126.6	125.6	122.2
11-7	Electrical machinery and equipment	106.8	106.2	106.0	105.6	105.4	104.7	104.8	104.7	104.5	104.3	104.2	103.5	103.5	103.0
11-9	Miscellaneous machinery	121.5	121.0	120.4	120.0	119.2	118.5	118.1	117.8	117.6	116.6	116.5	116.1	115.7	114.0
12	**Furniture and household durables**	107.5	107.2	106.9	106.5	106.4	106.2	106.1	105.9	105.9	105.8	105.7	105.4	105.3	104.0
12-1	Household furniture	124.3	123.6	123.6	123.3	123.0	123.0	122.8	122.3	121.9	121.5	121.3	121.0	120.7	117.2
12-2	Commercial furniture	124.4	124.1	124.0	122.4	121.7	119.5	119.5	119.3	119.0	118.0	117.8	117.2	117.0	115.4
12-3	Floor coverings	93.5	93.1	93.1	93.1	93.2	93.2	93.2	93.8	94.6	95.0	95.5	95.5	95.5	95.0
12-4	Household appliances	94.4	93.6	93.6	93.1	93.0	93.0	93.0	92.9	93.0	93.0	92.8	92.5	92.6	92.2
12-5	Home electronic equipment	77.2	77.8	77.7	77.9	77.9	77.9	77.9	78.1	78.1	78.5	78.6	78.7	78.7	81.0
12-6	Other household durable goods	133.0	133.3	131.1	131.2	131.4	131.4	131.2	130.2	130.0	130.0	129.6	129.1	128.9	124.9
13	**Nonmetallic mineral products**	116.5	114.5	113.9	113.8	113.5	113.0	113.0	112.8	112.6	112.3	111.9	111.2	110.6	108.1
13-11	Flat glass	118.4	117.8	116.2	116.2	116.2	116.2	116.2	115.2	114.6	113.4	112.3	110.8	109.9	109.5
13-2	Concrete ingredients	120.1	116.7	116.7	116.6	116.5	116.1	116.1	115.9	115.6	115.6	115.5	113.8	112.2	109.2
13-3	Concrete products	115.9	114.2	113.6	113.5	113.2	112.4	112.3	111.6	111.6	111.3	111.2	110.8	110.7	108.1
13-4	Structural clay products exc. refractories	119.4	118.5	118.5	117.8	117.5	117.0	116.9	116.9	116.8	116.7	116.0	115.9	115.8	113.1
13-5	Refractories	123.5	120.9	117.2	117.2	117.2	117.0	113.6	113.6	113.6	113.6	112.6	112.6	112.6	112.1
13-6	Asphalt roofing	101.8	101.2	94.0	96.7	96.7	96.7	100.9	100.2	97.9	99.2	99.2	99.6	96.8	97.5
13-7	Gypsum products	107.3	104.3	109.8	105.9	106.1	103.2	104.9	108.7	108.7	106.2	106.2	106.2	106.2	105.5
13-8	Glass containers	120.9	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	108.4
13-9	Other nonmetallic minerals	111.0	110.6	110.6	110.6	109.6	109.2	109.0	109.0	109.0	109.0	107.6	107.6	107.2	105.0
14	**Transportation equipment** (Dec. 1968=100)	102.9	102.7	102.7	102.3	100.0	99.9	100.4	100.3	100.2	100.1	100.0	100.1	100.1	-----
14-1	Motor vehicles and equipment	109.1	109.0	109.0	108.7	106.1	106.0	106.6	106.6	106.5	106.4	106.3	106.4	106.5	104.9
14-4	Railroad equipment (Jan. 1961=100)	117.4	115.7	115.1	115.1	114.4	114.3	114.3	111.8	111.1	110.2	110.2	108.5	108.5	106.6
15	**Miscellaneous products**	117.4	117.0	117.0	116.7	116.4	115.9	115.5	115.1	112.8	112.7	112.5	112.5	112.5	111.8
15-1	Toys, sporting goods, small arms, ammunition	114.1	112.7	112.8	112.3	112.1	111.8	111.2	110.9	110.7	110.8	110.5	110.1	110.2	108.3
15-2	Tobacco products	124.0	124.0	124.0	123.8	123.8	123.5	123.4	123.2	117.0	116.9	116.7	116.7	116.6	115.2
15-3	Notions	107.2	107.2	107.2	106.7	106.7	106.7	102.0	102.0	102.0	100.8	100.7	100.7	100.7	103.4
15-4	Photographic equipment and supplies	115.7	115.3	115.0	114.9	113.9	111.4	111.4	112.6	112.4	112.1	112.0	112.7	112.7	113.6
15-9	Other miscellaneous products	115.1	114.9	114.9	114.8	114.3	114.2	114.1	112.6	111.7	111.7	111.4	111.2	111.2	110.9

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

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

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

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

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

Commodity group	1969												1968	Annual average 1968
	Dec. [3]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
All commodities—less farm products	115.4	115.0	114.7	114.1	113.8	113.6	113.3	112.9	112.5	112.3	111.8	111.3	110.5	109.4
All foods	123.3	123.1	119.8	120.1	119.9	120.7	119.9	119.0	115.4	115.7	115.0	115.5	113.8	112.2
Processed foods	122.8	122.1	121.8	121.6	121.9	122.5	122.0	119.9	117.0	116.2	115.8	115.4	114.0	113.3
Textile products, excluding hard and bast fiber products	101.0	101.1	101.1	101.3	101.3	101.0	100.8	100.6	100.9	100.8	101.0	101.5	101.6	100.6
Hosiery	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.4	92.5	93.2	92.5
Underwear and nightwear	115.9	115.7	115.7	115.6	115.6	115.6	114.5	114.3	114.2	114.3	114.2	114.3	113.6	112.6
Refined petroleum products	102.2	101.6	101.6	101.8	102.5	103.2	103.3	102.4	102.5	101.7	99.5	98.9	99.0	100.3
East Coast	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	104.9
Mid-Continent	103.9	102.5	98.7	98.0	103.9	98.8	103.9	101.0	103.2	106 9	101.1	101.8	97.1	99.6
Gulf Coast	100.7	99.8	101.4	101.4	101.4	104.8	103.2	102.4	101.8	99.5	96.8	95.2	97.3	99.8
Pacific Coast	92.5	92.5	92.3	94.9	94.9	94.9	93.6	93.6	93.6	91.0	91.0	90.9	90.9	91.8
Midwest (Jan. 1961=100)	99.1	98.4	97.4	97.0	97.0	97.0	98.7	97.4	97.6	98.4	95.8	95.8	96.4	95.3
Pharmaceutical preparations	97.1	96.7	96.5	96.5	96.2	96.3	96.2	96.2	96.2	96.1	95.9	95.9	96.1	95.4
Lumber and wood products excluding millwork and other wood products [4]	120.6	122.2	120.1	120.8	121.7	123.5	130.0	142.5	151.1	161.6	155.0	146.0	140.1	121.7
Special metals and metal products [5]	119.9	119.2	118.8	117.5	116.6	115.7	115.2	114.9	114.3	113.7	113.4	112.9	111.9	110.9
Machinery and motive products	117.9	117.4	116.9	115.5	115.1	115.2	114.9	114.7	114.4	114.3	114.0	113.8	113.6	112.0
Machinery and equipment, except electrical	131.9	130.6	129.9	129.0	128.3	128.1	127.5	127.1	126.6	126.4	126.0	125.5	125.0	123.0
Agricultural machinery, including tractors	139.1	138.5	135.5	135.3	134.6	134.7	134.3	134.3	134.4	134.4	134.1	133.7	132.6	129.4
Metalworking machinery	144.6	143.6	143.4	141.7	140.9	140.9	139.2	138.9	138.6	138.1	137.8	137.7	136.9	135.3
Total tractors	142.5	141.3	139.4	138.4	137.1	137.0	137.0	137.0	137.0	136.8	136.8	136.8	135.6	131.5
Industrial valves	127.3	125.8	125.8	124.8	124.8	125.8	126.5	123.5	123.1	122.4	120.4	120.6	121.0	124.6
Industrial fittings	119.4	118.6	118.0	118.0	115.3	115.3	115.9	115.9	114.7	114.7	113.0	112.0	112.0	107.7
Abrasive grinding wheels	107.1	107.0	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.3	99.0
Construction materials	116.9	116.9	116.3	115.9	115.7	115.9	116.9	118.9	120.2	121.6	119.8	117.4	115.4	111.1

[1] See footnote 1, table 26.
[2] See footnote 2, table 26.
[3] Current monthly indexes are not available for this issue.
[4] Formerly titled "Lumber and wood products, excluding millwork."
[5] Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

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

[1957–59=100][2]

Commodity group	1970	1969											Annual average 1968
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
ALL COMMODITIES	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	111.9	111.7	111.1	110.7	108.7
CRUDE MATERIALS FOR FURTHER PROCESSING	110.7	109.9	109.0	108.7	108.7	109.5	110.2	111.2	109.7	105.7	105.2	103.8	102.8	101.1
Foodstuffs and feedstuffs	112.9	112.2	111.0	110.5	110.4	112.1	113.8	115.6	113.5	107.6	107.6	105.9	104.5	102.5
Nonfood materials except fuel	105.3	104.2	104.0	104.0	104.8	104.1	102.6	102.1	101.8	101.1	99.5	98.3	97.9	97.4
Manufacturing	104.3	103.2	103.0	103.0	103.9	103.2	101.6	101.0	100.8	100.0	98.3	97.0	96.6	96.4
Construction	116.4	115.3	115.3	115.1	114.9	114.1	114.1	113.8	113.2	113.2	113.1	112.8	112.8	109.8
Crude fuel	122.2	121.5	121.1	119.9	118.1	117.2	117.1	116.8	116.4	116.2	115.8	115.4	115.7	112.7
Manufacturing industries	119.6	118.8	118.6	117.8	116.7	115.6	115.5	115.3	115.0	114.9	114.7	114.2	114.5	112.2
Nonmanufacturing industries	125.8	125.0	124.5	122.8	120.1	119.4	119.3	118.7	118.2	117.8	117.4	117.1	117.3	113.5
INTERMEDIATE MATERIALS, SUPPLIES AND COMPONENTS	114.4	113.5	113.1	112.8	112.4	111.9	111.4	111.4	111.4	111.4	111.4	110.7	110.1	108.0
Materials and Components for Manufacturing	113.6	112.9	112.6	112.2	111.8	111.4	110.6	110.4	110.2	109.8	109.6	109.1	108.5	107.1
Materials for food manufacturing	121.1	119.9	120.0	119.2	118.3	118.4	117.8	117.8	116.3	114.1	113.4	113.1	112.7	110.7
Materials for nondurable manufacturing	102.3	101.6	101.7	101.5	101.7	101.7	101.2	101.1	100.9	100.8	100.7	100.6	100.5	100.2
Materials for durable manufacturing	122.1	121.4	120.4	120.0	119.6	118.7	117.4	117.1	117.5	117.3	117.0	116.0	114.8	111.7
Components for manufacturing	117.7	117.0	116.7	116.1	115.1	114.3	113.9	113.4	113.1	112.6	112.4	111.9	111.5	110.5
Materials and Components for Construction	117.3	116.8	116.7	116.2	115.8	115.5	115.4	116.0	117.6	118.4	119.7	118.3	116.3	110.7
Processed fuels and lubricants	102.4	102.7	102.1	102.3	101.0	100.6	100.8	100.9	100.5	100.3	100.4	99.6	99.5	99.7
Manufacturing industries	105.3	105.1	104.5	104.8	103.2	102.3	102.4	102.4	102.4	102.2	102.8	102.8	102.6	102.0
Nonmanufacturing industries	97.8	99.0	98.4	98.4	97.6	97.8	98.4	98.5	97.5	97.2	96.7	94.7	94.8	96.2
Containers	116.2	114.8	114.6	114.5	114.2	113.7	113.3	113.2	113.1	112.9	112.3	111.7	110.9	109.2
Supplies	119.7	116.9	115.9	115.6	115.1	114.4	114.3	113.8	113.3	113.9	112.9	113.0	113.1	112.5
Manufacturing industries	120.5	119.4	118.7	118.0	117.8	117.4	116.8	116.7	116.5	116.3	115.8	115.2	115.0	113.8
Nonmanufacturing industries	118.6	115.1	113.9	113.9	113.3	112.4	112.5	111.9	111.2	112.1	111.0	111.4	111.5	111.2
Manufactured animal feeds	123.7	114.1	111.6	112.3	111.7	110.5	110.8	109.3	107.4	110.8	108.1	109.8	110.6	111.0
Other supplies	112.3	111.8	111.4	111.0	110.4	109.7	109.7	109.6	109.4	109.2	108.8	108.6	108.4	107.8
FINISHED GOODS (Including Raw Foods and Fuels)	118.8	118.0	117.6	116.5	116.0	115.7	115.9	115.4	114.7	113.8	113.7	113.3	113.2	111.3
Consumer Goods	117.3	116.5	116.2	115.1	114.7	114.4	114.8	114.2	113.5	112.3	112.2	111.7	111.8	109.9
Foods	126.4	124.5	123.9	121.2	121.6	121.2	122.3	121.3	120.1	116.9	117.1	116.4	116.8	113.4
Crude	131.6	129.5	131.0	114.2	116.9	112.4	114.9	111.3	116.0	111.4	117.4	115.1	119.7	109.1
Processed	125.3	123.5	122.5	122.4	122.4	122.8	123.7	123.1	120.9	117.9	116.9	116.5	116.2	114.2
Other nondurable goods	114.2	114.1	113.8	113.6	113.3	113.0	112.6	112.2	111.4	111.5	111.2	110.7	110.4	109.4
Durable goods	107.4	107.2	107.1	106.9	105.3	105.2	105.6	105.5	105.4	105.4	105.3	105.1	105.1	103.9
Producer Finished Goods	122.9	122.3	121.5	120.8	119.9	119.3	119.3	118.7	118.5	118.1	118.0	117.8	117.6	115.3
Manufacturing industries	128.0	127.5	126.2	125.8	125.0	124.4	124.4	123.5	123.2	122.7	122.6	122.3	121.9	119.8
Nonmanufacturing industries	118.0	117.4	117.0	116.1	115.0	114.4	114.5	114.2	113.9	113.7	113.7	113.5	113.3	111.1
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds and leaf tobacco	(3)	114.5	114.1	113.7	113.9	112.5	110.7	110.2	109.7	109.0	107.2	105.5	105.0	101.8
Intermediate materials supplies and components, excluding intermediate materials for food mfg., and mfr.'d animal feeds	(3)	112.9	112.6	112.2	111.8	111.3	110.9	110.8	111.1	111.0	111.1	110.4	109.7	107.5
Consumer finished goods, excluding consumer foods	(3)	111.5	111.3	111.1	110.3	110.1	110.0	109.7	109.2	109.2	109.0	108.7	108.4	107.4

[1] See footnote 1, table 26.
[2] See footnote 2, table 26.
[3] Not available.

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

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

[1957–59=100][2]

Commodity group	1970	1969												Annual average 1968
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	
All commodities	116.0	115.1	114.7	114.0	113.6	113.4	113.3	113.2	112.8	111.9	111.7	111.1	110.7	108.7
Total durable goods	119.6	119.0	118.4	117.9	117.1	116.5	116.1	115.9	116.1	116.0	116.1	115.4	114.6	111.8
Total nondurable goods	113.4	112.4	111.9	111.2	111.1	111.1	111.3	111.2	110.3	108.8	108.6	108.0	107.8	106.5
Total manufactures	116.1	115.3	114.9	114.6	113.9	113.6	113.5	113.2	112.8	112.4	112.2	111.7	111.3	109.4
Durable	119.4	118.8	118.3	117.9	117.0	116.4	116.1	116.0	116.2	116.2	116.3	115.6	114.8	112.0
Nondurable	113.0	111.9	111.6	111.4	111.0	111.0	111.0	110.6	109.6	108.9	108.3	108.0	107.7	106.9
Total raw or slightly processed goods	114.8	113.9	113.1	111.0	111.6	111.5	112.2	112.6	112.1	108.6	109.1	107.8	107.6	104.9
Durable	128.9	125.3	124.0	122.8	123.7	119.7	114.8	114.9	113.3	110.6	108.1	107.1	105.0	101.1
Nondurable	114.1	113.3	112.5	110.3	110.9	111.1	112.1	112.4	112.0	108.5	109.1	107.8	107.7	105.2

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

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

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

[1957–59=100 unless otherwise indicated]

1963 SIC Code	Industry	Other bases	1969												1968	Annual average 1968
			Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
	MINING															
1111	Anthracite		118.4	114.9	111.4	111.4	108.0	108.0	104.2	104.2	106.2	107.4	107.4	107.0	107.0	99.9
1211	Bituminous coal		124.9	124.2	121.3	116.2	116.1	116.0	115.0	114.1	113.4	113.1	113.1	113.1	113.1	107.2
1311	Crude petroleum and natural gas		110.9	110.9	110.8	110.9	110.6	110.5	110.6	110.7	110.9	109.9	106.6	106.5	106.4	106.0
1421	Crushed and broken stone		114.5	114.5	114.2	114.2	113.6	113.6	113.6	112.6	112.5	112.5	112.5	112.5	111.3	109.5
1442	Construction sand and gravel		123.0	123.0	123.0	122.5	121.5	121.5	120.7	120.6	120.8	120.6	119.8	119.8	118.6	116.6
1475	Phosphate rock		147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4
1476	Rock salt		107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	100.8	100.8	100.8	100.8	100.8
1477	Sulfur		115.8	115.8	124.1	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	173.7	173.7	171.6
	MANUFACTURING															
2011	Meat slaughtering plants	12/66	114.0	113.5	113.8	116.2	117.4	121.7	121.2	114.8	108.0	104.6	103.9	104.2	100.1	101.1
2013	Meat processing plants	12/66	121.3	118.5	119.1	120.3	122.0	118.7	117.0	109.7	104.8	103.4	101.7	100.3	100.7	98.8
2015	Poultry dressing plants		105.7	103.3	101.7	104.0	107.8	103.3	101.7	102.3	96.1	99.6	98.5	95.9	90.4	93.8
2021	Creamery butter	12/66	106.3	105.1	105.1	105.1	104.9	104.9	104.8	104.8	104.9	103.4	103.3	103.4	105.0	102.6
2033	Canned fruits and vegetables	12/66	109.8	109.7	109.5	109.0	108.7	108.7	107.7	107.7	107.8	107.7	107.6	107.4	107.3	109.4
2036	Fresh or frozen packaged fish		150.8	154.1	146.5	145.9	143.8	146.4	139.9	140.4	136.8	141.7	141.4	140.1	139.0	131.5
2044	Rice milling		94.0	94.0	94.0	93.1	92.6	92.6	93.8	93.8	93.8	93.8	93.8	93.8	93.8	96.6
2052	Biscuits, crackers and cookies	12/66	109.7	109.7	108.0	107.1	104.5	104.4	104.4	104.4	104.3	104.3	104.3	104.3	104.3	104.3
2061	Raw cane sugar	12/66	107.0	110.1	110.5	109.6	108.9	104.5	109.5	109.5	109.0	108.5	107.7	107.5	106.8	105.4
2062	Cane sugar refining	12/66	108.9	109.3	109.2	108.4	108.1	107.6	107.6	107.2	105.8	103.9	103.6	103.6	103.2	101.9
2063	Beet sugar	12/66	106.1	106.6	106.7	106.4	106.3	105.7	106.7	104.9	105.0	102.3	102.2	102.6	102.5	102.3
2073	Chewing gum		106.2	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.0
2082	Malt liquors		107.3	107.3	107.7	107.1	107.2	107.2	106.7	106.0	104.9	104.9	104.9	104.9	104.9	104.6
2083	Malt	12/66	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
2084	Wines and brandy		118.3	118.3	118.3	115.5	115.5	115.7	115.7	115.7	115.7	115.7	115.5	115.5	115.5	115.2
2091	Cottonseed oil mills		99.4	95.8	91.5	97.0	97.2	98.3	92.9	92.7	93.9	93.6	93.7	95.0	94.5	108.9
2092	Soybean oil mills	12/66	88.6	88.0	91.0	85.7	87.4	87.1	87.0	86.3	85.6	84.8	83.1	83.3	82.2	86.9
2094	Animal and marine fats and oils	12/66	96.4	104.9	102.1	105.8	104.6	99.6	93.8	89.0	88.9	85.1	82.9	81.3	79.7	79.0
2096	Shortening and cooking oils		108.8	107.2	105.5	102.6	102.5	102.3	103.3	103.1	103.2	103.1	102.9	101.0	100.3	100.5
2098	Macaroni and noodle products	12/66	101.9	101.9	101.9	101.9	101.8	101.9	101.8	101.8	101.5	100.4	100.3	100.3	100.3	100.3
2111	Cigarettes		125.1	125.0	125.0	125.0	125.0	125.0	124.9	117.5	117.5	117.4	117.4	117.4	117.4	115.8
2121	Cigars		107.3	107.3	106.8	106.8	105.2	103.8	102.7	102.7	102.7	102.1	102.0	102.0	101.7	101.6
2131	Chewing and smoking tobacco		141.4	140.6	138.5	138.3	138.1	138.1	137.1	137.0	136.0	134.7	134.7	132.4	132.4	130.7
2254	Knit underwear mills	12/66	107.8	107.7	107.7	107.7	107.7	107.7	106.3	106.4	106.3	106.3	106.3	106.3	105.7	104.7
2311	Men's and boys' suits and coats		142.7	142.2	140.4	139.4	138.5	137.1	135.8	134.4	134.7	134.3	134.3	134.2	133.4	127.3
2321	Men's dress shirts and nightwear		122.1	121.0	121.0	120.6	120.6	118.3	118.2	118.2	118.8	118.8	118.9	118.7	115.5	114.4
2322	Men's and boys' underwear	12/66	109.1	109.0	109.0	107.9	107.9	107.7	106.9	107.0	107.1	107.1	107.0	106.9	106.4	104.5
2327	Men's and boys' separate trousers	12/66	106.9	106.8	106.8	106.4	106.3	106.1	106.1	104.8	104.8	104.7	104.7	104.7	103.9	102.8
2328	Work clothing		119.1	119.0	119.0	118.3	117.7	117.4	117.4	116.6	116.6	116.6	116.6	116.5	115.1	114.3
2381	Fabric dress and work gloves		137.1	135.4	135.4	134.8	132.1	131.9	131.9	131.9	131.7	130.8	130.6	130.1	128.4	127.5
2426	Hardwood dimension and flooring	12/66	116.5	116.6	116.7	117.2	117.3	117.8	119.0	120.7	121.1	120.6	118.8	116.5	114.7	106.6
2442	Wirebound boxes and crates	12/67	110.7	110.0	110.0	110.0	108.6	108.3	107.4	107.4	106.5	106.4	106.4	106.3	105.6	104.6
2515	Mattresses and bedsprings	12/66	108.2	108.7	108.5	108.5	108.5	108.3	108.2	108.2	108.3	108.2	108.2	106.7	104.3	103.7
2521	Wood office furniture		139.2	138.9	137.6	135.9	134.3	134.3	134.3	133.4	132.8	132.2	131.7	131.1	131.1	128.0
2647	Sanitary paper products	12/66	115.3	115.3	113.9	113.5	113.1	112.3	111.5	111.1	111.1	111.1	110.2	108.0	108.0	107.1
2654	Sanitary food containers	12/66	101.3	101.2	100.6	100.4	100.4	100.1	100.7	100.6	100.6	100.4	100.7	100.8	100.5	101.5

See footnotes at end of table.

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

1963 SIC Code	Industry	Other bases	1969											1968	Annual Average 1968
			Dec. [2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
	MANUFACTURING—Continued															
2822	Synthetic rubber		96.0	96.0	96.0	96.0	95.9	95.9	95.9	95.9	95.8	95.3	95.3	94.5	94.7	95.3
2823	Cellulosic man-made fibers		95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.8	95.8	95.8	95.7	95.2
2824	Organic fibers, noncellulosic	12/66	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.1
2871	Fertilizers	12/66	85.0	85.0	85.4	88.3	88.5	88.7	99.2	99.2	99.2	99.4	99.4	99.6	100.3	102.0
2872	Fertilizers, mixing only	12/66	90.6	90.6	91.2	92.7	92.6	93.1	93.3	93.3	93.3	93.9	93.7	94.1	94.8	98.4
2892	Explosives		117.1	117.3	117.3	117.4	117.5	117.4	117.5	116.9	115.0	114.8	114.1	114.1	114.6	113.8
2911	Petroleum refining		97.8	97.3	97.3	97.5	98.1	98.8	98.8	98.0	98.0	97.1	95.1	94.7	95.1	96.3
3111	Leather tanning and finishing		120.4	120.5	121.2	122.3	121.5	121.7	122.1	122.2	122.8	116.7	116.7	117.0	116.1	112.7
3121	Industrial leather belting	12/66	118.3	117.2	117.4	117.6	118.2	117.5	113.5	115.4	112.0	111.5	110.5	109.7	111.0	110.4
3221	Glass containers		116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	110.3	108.4
3241	Cement, hydraulic		114.9	114.9	114.9	114.9	114.8	114.8	114.8	114.8	114.8	114.7	111.7	108.5	105.9	105.7
3251	Brick and structural clay tile		125.1	125.1	124.4	124.4	123.5	123.5	123.4	123.2	123.0	121.5	121.5	121.4	121.2	117.8
3255	Clay refractories		126.2	122.2	122.2	122.2	122.0	117.8	117.8	117.8	117.8	116.7	116.7	116.7	116.7	116.0
3259	Structural clay products, n.e.c		116.4	116.4	115.9	115.1	115.0	114.4	114.8	115.3	115.3	115.3	115.1	115.0	114.1	114.3
3261	Vitreous plumbing fixtures		104.6	104.2	103.4	102.4	102.4	102.4	100.9	100.8	99.8	99.8	99.7	99.5	99.1	98.2
3262	Vitreous china food utensils		143.7	143.7	139.8	139.8	139.8	139.8	137.2	137.2	137.2	134.3	134.3	134.3	134.3	130.8
3263	Fine earthenware food utensils		131.2	131.2	130.9	130.9	130.9	130.9	127.0	127.0	127.0	123.3	123.3	123.3	123.3	123.1
3271	Concrete block and brick		115.4	115.0	114.9	114.6	114.5	114.5	113.7	114.2	114.2	114.5	113.4	112.9	111.7	110.8
3273	Ready mixed concrete	1958	115.7	114.9	114.7	114.4	113.7	113.5	112.7	112.6	112.3	112.0	111.8	111.7	110.3	108.6
3275	Gypsum products		104.7	110.1	106.2	106.4	103.6	105.2	108.9	108.9	106.5	106.5	106.5	106.5	106.5	105.8
3312	Blast furnace and steel mills		115.3	115.3	115.2	114.4	114.3	112.5	111.8	111.7	110.8	110.6	109.5	109.3	107.7	107.6
3315	Steel wire drawing, etc	12/66	108.6	108.5	108.4	107.5	107.0	106.4	106.3	105.9	105.1	105.1	105.1	104.5	103.7	101.5
3316	Cold finishing of steel shapes	12/66	113.6	113.7	113.7	112.1	112.1	109.0	109.0	108.7	107.5	107.4	107.4	107.2	107.0	104.6
3317	Steel pipe and tube	12/66	110.5	110.4	110.4	108.4	107.8	107.7	107.3	107.3	107.2	105.7	105.6	104.8	104.7	103.6
3333	Primary zinc	12/66	107.7	107.7	107.4	105.6	100.9	100.6	100.5	100.4	97.1	96.9	96.9	97.2	93.9	93.9
3334	Primary aluminum	12/66	114.0	114.0	114.0	110.0	110.0	110.0	109.0	109.0	109.0	109.0	109.0	106.1	105.4	104.0
3339	Primary nonferrous metals, n.e.c	12/66	134.8	138.9	133.9	131.8	123.8	120.5	120.1	120.1	120.3	119.5	119.8	122.3	119.4	122.3
3351	Copper rolling and drawing		171.4	166.4	166.4	165.9	160.6	154.5	152.3	151.7	147.8	144.6	142.8	142.8	134.3	140.3
3411	Metal cans	12/66	109.0	109.0	109.0	109.0	109.0	108.9	108.9	108.9	108.9	108.9	108.8	106.3	106.2	105.6
3423	Hand and edge tools	12/67	110.8	110.6	109.6	108.4	108.4	107.8	107.1	106.9	107.2	106.3	105.9	105.0	104.8	102.6
3431	Metal plumbing fixtures		100.4	100.3	99.8	99.4	98.8	98.7	97.3	96.6	95.8	95.8	95.7	95.3	95.0	93.5
3493	Steel springs	12/66	107.2	107.2	107.2	106.8	106.8	106.8	106.3	106.0	105.9	105.8	105.8	105.8	105.2	102.6
3496	Collapsible tubes	1958	103.8	103.7	103.7	103.7	103.6	103.6	103.5	103.2	103.2	103.1	103.0	102.9	101.5	100.2
3498	Fabricated pipe and fittings		130.9	130.8	130.4	130.4	130.3	130.3	129.7	129.7	129.7	123.4	123.4	123.4	122.7	119.8
3519	Internal combustion engines	12/66	110.9	110.8	110.1	109.7	109.1	108.0	108.3	108.3	107.9	107.5	106.9	106.7	106.6	104.5
3533	Oil field machinery		125.1	122.7	122.5	122.4	121.8	121.5	121.0	120.8	120.4	120.0	119.1	119.0	118.0	114.6
3534	Elevators and moving stairways	12/66	110.5	107.7	107.7	107.6	107.6	107.6	104.5	104.5	104.5	104.5	103.9	103.9	103.9	102.8
3537	Industrial trucks and tractors		134.0	133.9	133.6	132.6	131.2	131.2	130.5	129.1	128.6	128.6	128.2	128.1	127.2	123.7
3562	Ball and roller bearings	12/66	105.7	103.7	103.7	102.6	102.6	102.2	102.2	102.1	102.1	102.1	102.1	101.6	101.6	100.8
3572	Typewriters	12/66	103.9	103.8	103.2	103.1	103.1	101.5	101.4	101.3	100.5	100.6	100.6	100.6	100.6	101.3
3576	Scales and balances		133.4	133.2	133.0	133.0	129.9	129.9	128.6	127.0	127.0	126.9	126.9	126.3	126.4	123.4
3612	Transformers	12/66	100.3	99.3	100.2	101.6	101.6	101.3	101.1	100.2	100.8	102.2	102.3	104.6	104.6	106.1
3613	Switchgear and switchboards	12/66	107.1	106.7	105.7	105.9	103.6	104.4	104.9	104.0	103.6	104.3	104.9	104.8	104.4	104.3
3624	Carbon and graphite products	12/67	104.8	104.4	104.4	104.3	104.3	104.3	103.0	101.1	101.0	101.0	101.0	101.0	101.0	100.8
3635	Household vacuum cleaners	12/66	99.9	99.9	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.5	101.2
3641	Electric lamps	12/66	98.4	98.5	99.2	101.1	100.3	99.6	104.1	103.1	103.6	102.7	103.0	103.0	103.0	104.9
3652	Phonograph records		123.5	123.5	123.5	123.5	122.6	122.6	122.6	122.3	122.3	122.3	122.3	121.3	119.8	119.8
3671	Electron tubes, receiving type	12/66	121.2	121.3	121.3	121.2	117.8	117.8	117.8	117.8	117.8	117.7	109.6	105.9	105.9	105.9
3672	Cathode ray picture tubes	12/66	87.5	89.7	90.0	90.0	90.0	90.0	89.9	89.9	89.9	89.9	89.8	89.9	92.4	94.5
3673	Electron tubes, transmitting	12/66	103.2	103.2	103.1	103.0	102.9	102.9	102.1	102.1	102.0	102.0	102.0	102.1	102.0	101.4
3674	Semiconductors	12/66	92.7	92.8	92.7	92.6	92.7	92.6	92.6	92.7	92.7	92.6	92.4	92.4	92.5	92.3
3692	Primary batteries, dry and wet		115.4	115.4	115.3	115.2	115.2	115.2	115.2	115.2	115.2	114.9	113.8	112.5	111.3	111.3
3693	X-ray apparatus and tubes	12/67	117.4	115.6	115.4	113.1	112.8	112.8	112.5	112.6	111.0	111.3	111.4	111.1	107.7	105.1
3941	Games and toys	12/66	112.1	112.2	111.4	111.4	111.4	111.1	111.1	111.1	111.2	111.1	111.2	110.3	110.1	109.3

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

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

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

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

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year (thousands)	In effect during month (thousands)	Number (thousands)	Percent of estimated working time
1945	4,750		3,470		38,000	0.31
1946	4,985		4,600		116,000	1.04
1947	3,693		2,170		34,600	.30
1948	3,419		1,960		34,100	.28
1949	3,606		3,030		50,500	.44
1950	4,843		2,410		38,800	.33
1951	4,737		2,220		22,900	.18
1952	5,117		3,540		59,100	.48
1953	5,091		2,400		28,300	.22
1954	3,468		1,530		22,600	.18
1955	4,320		2,650		28,200	.22
1956	3,825		1,900		33,100	.24
1957	3,673		1,390		16,500	.12
1958	3,694		2,060		23,900	.18
1959	3,708		1,880		69,000	.50
1960	3,333		1,320		19,100	.14
1961	3,367		1,450		16,300	.11
1962	3,614		1,230		18,600	.13
1963	3,362		941		16,100	.11
1964	3,655		1,640		22,900	.15
1965	3,963		1,550		23,300	.15
1966	4,405		1,960		25,400	.15
1967	4,595		2,870		42,100	.25
1968	5,045		2,649		49,018	.28
1967: January	286	443	94.4	163.5	1,247.9	.09
February	292	485	104.1	159.2	1,275.8	.10
March	368	545	129.9	195.4	1,507.8	.10
April	462	638	397.6	438.8	2,544.8	.19
May	528	769	277.8	584.9	4,406.4	.30
June	472	759	211.8	405.0	4,927.4	.33
July	389	682	664.6	865.5	4,328.7	.32
August	392	689	91.3	233.1	2,859.5	.18
September	415	681	372.8	473.6	6,159.8	.45
October	449	727	178.8	458.7	7,105.6	.47
November	360	653	277.1	559.5	3,213.2	.22
December	182	445	74.4	209.5	2,546.5	.18
1968: January	314	483	187.8	275.7	2,668.5	.18
February	357	569	275.0	451.3	4,104.1	.29
March	381	618	174.5	368.7	3,682.0	.26
April	505	748	537.2	656.7	5,677.4	.38
May	610	930	307.3	736.2	7,452.2	.49
June	500	810	168.5	399.9	5,576.8	.40
July	520	880	202.0	465.1	4,611.9	.30
August	466	821	153.8	359.6	4,048.9	.26
September	448	738	169.8	349.0	3,081.1	.22
October	434	741	279.0	414.5	3,991.7	.25
November	327	617	129.9	306.1	2,430.5	.17
December	183	408	64.1	189.2	1,692.5	.11
1969: January [2]	320	480	182	255	3,380	.22
February [2]	330	500	137	266	2,590	.19
March [2]	420	600	112	261	2,080	.14
April [2]	570	770	253	303	2,740	.18
May [2]	660	870	219	329	3,530	.24
June [2]	560	800	181	302	3,370	.22
July [2]	500	760	220	307	3,420	.22
August [2]	500	770	160	280	2,890	.19
September [2]	490	740	157	215	1,830	.12
October [2]	510	750	317	372	2,850	.17
November [2]	310	550	132	323	4,050	.29
December [2]	175	385	33	208	3,490	.25

[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.

[2] Preliminary.

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

[Indexes 1957–59 = 100]

Year and quarter	Output		Man-hours		Output per man-hour		Compensation per man-hour [1]		Real compensation per man-hour [2]		Unit labor costs	
	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm	Private	Private nonfarm
1967: 1st quarter	146.4	148.2	110.6	115.5	132.4	128.3	147.9	143.5	129.0	125.2	111.7	111.9
2d quarter	147.2	148.9	109.6	114.9	134.4	129.6	150.3	145.5	130.1	126.0	111.9	112.3
3d quarter	148.9	150.7	110.3	115.3	134.9	130.6	152.2	147.6	130.4	126.4	112.9	113.0
4th quarter	150.2	152.1	110.9	116.0	135.4	131.1	154.3	149.7	131.1	127.2	114.0	114.2
Annual average	148.2	150.0	110.4	115.4	134.3	129.9	151.2	146.6	130.1	126.2	112.6	112.9
1968: 1st quarter	152.4	154.3	111.2	116.4	137.0	132.6	158.5	153.6	133.3	129.2	115.7	115.9
2d quarter	155.2	157.5	112.2	117.5	138.3	134.1	160.8	155.7	133.7	129.4	116.3	116.1
3d quarter	156.7	159.0	112.7	118.3	139.0	134.4	163.7	158.1	134.5	129.8	117.8	117.6
4th quarter	158.1	160.6	112.6	118.3	140.4	135.8	167.8	162.0	136.3	131.5	119.6	119.4
Annual average	155.6	157.9	112.2	117.6	138.7	134.2	162.7	157.4	134.4	130.0	117.4	117.3
1969: 1st quarter	159.1	161.5	113.7	119.6	139.9	135.0	170.5	164.4	136.7	131.8	121.8	121.8
2d quarter	159.9	162.3	114.6	120.7	139.5	134.5	172.7	166.5	136.2	131.3	123.8	123.8
3d quarter	160.8	163.1	115.0	121.4	139.8	134.4	175.8	169.1	136.8	131.5	125.8	125.8
4th quarter	160.6	163.4	114.3	121.0	140.5	135.0	179.3	172.1	137.5	132.0	127.7	127.5
Annual average	160.1	162.6	114.4	120.6	139.9	134.8	174.6	168.0	136.8	131.7	124.8	124.7
	Percent change over previous quarter at annual rate [3]											
1967: 1st quarter	−1.4	−2.2	0.0	−0.3	−1.4	−1.9	3.9	4.9	3.2	4.1	5.3	6.9
2d quarter	2.3	1.9	−3.7	−2.1	6.2	4.1	6.7	5.5	3.7	2.6	0.5	1.4
3d quarter	4.5	4.8	2.9	1.7	1.5	3.0	5.2	5.8	0.9	1.6	3.6	2.7
4th quarter	3.6	3.9	2.1	2.4	1.5	1.5	5.6	5.9	2.1	2.3	4.1	4.4
1968: 1st quarter	6.0	6.0	1.0	1.2	4.9	4.8	11.3	10.9	6.8	6.5	6.0	5.9
2d quarter	7.4	8.4	3.5	3.8	3.8	4.5	6.0	5.5	1.1	0.7	2.1	1.0
3d quarter	4.1	4.0	1.9	2.8	2.1	1.1	7.5	6.4	2.3	1.3	5.3	5.3
4th quarter	3.5	4.0	−0.3	0.0	3.8	4.0	10.4	10.3	5.5	5.4	6.3	6.0
1969: 1st quarter	2.6	2.2	3.8	4.6	−1.2	−2.3	6.4	5.8	1.4	0.8	7.6	8.3
2d quarter	1.9	2.0	3.2	3.5	−1.3	−1.4	5.4	5.4	−1.4	−1.4	6.8	6.9
3d quarter	2.2	2.0	1.3	2.4	0.8	−0.4	7.4	6.2	1.5	0.4	6.5	6.6
4th quarter	−0.3	0.6	−2.2	−1.3	2.0	1.9	8.2	7.5	2.3	1.7	6.0	5.5
	Percent change over previous year [4]											
1968: 3d quarter	5.3	5.6	2.1	2.6	3.1	2.9	7.6	7.2	3.1	2.7	4.4	4.1
4th quarter	5.3	5.6	1.5	1.9	3.7	3.6	8.8	8.3	3.9	3.4	4.9	4.5
1969: 1st quarter	4.4	4.6	2.2	2.8	2.1	1.8	7.6	7.0	2.6	2.0	5.3	5.1
2d quarter	3.0	3.0	2.2	2.7	0.8	0.3	7.4	7.0	1.9	1.5	6.5	6.6
3rd quarter	2.6	2.6	2.0	2.6	0.5	0.0	7.4	6.9	1.7	1.3	6.8	7.0
4th quarter	1.6	1.7	1.5	2.3	0.1	−0.6	6.8	6.2	0.9	0.4	6.7	6.8

[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] Percent change computed from original data.

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

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.

NOTE: Data for 1967, 1968, and first quarter 1969 have been revised to reflect new benchmark information on output, employment and compensation.

Scheduled release dates for major BLS statistical series, April 1970

Title	Date of press release	Period covered	MLR table numbers
Wholesale Price Index, final	April 6	March	26–30
The employment situation	April 7	March	1–14
Consumer Price Index	April 23	March	23–25
Work stoppages	April 24	March	31
Factory labor turnover	April 29	February	15–16
Wholesale Price Index, preliminary	April 29	April	26–30

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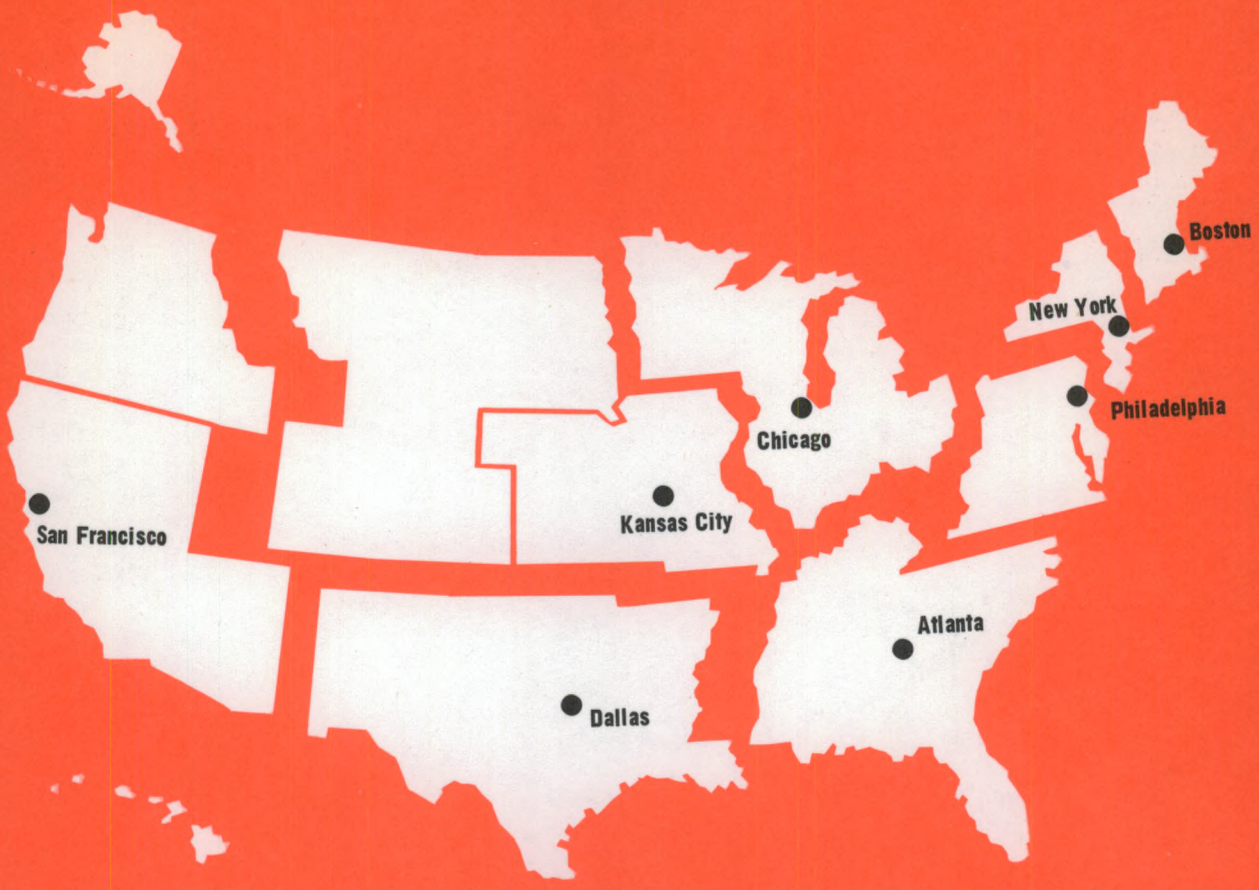

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