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Bureau of Labor Statistics  
August 1980

*In this issue:*

Employment in the  
first half of 1980

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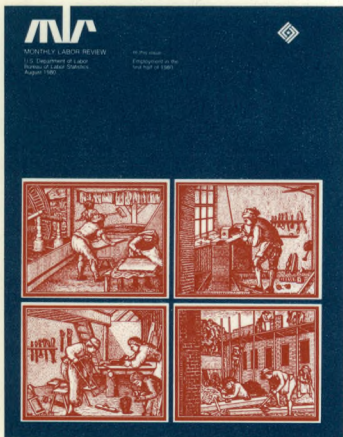
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**MONTHLY LABOR REVIEW**

**AUGUST 1980**  
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Robert W. Fisher, Executive Editor

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# Labor Month In Review



**OCCUPATIONAL DISEASES.** In *An Interim Report to Congress on Occupational Diseases*, Secretary of Labor Ray Marshall discussed the difficulty of linking diseases to employment and the limitations on income support for those afflicted. Excerpts:

**Diagnosis.** Almost 2 million workers report they are severely or partially disabled from an occupationally related disease. Approximately 700,000 suffer long-term total disability. The 1.2 million workers partially disabled are either temporarily out of the labor force because of the impairment or limited in the work they can perform.

Because of the length of time between exposure to an industrial health hazard and the onset of disability or death, it is difficult, in many cases, to link diseases to employment. For example, symptoms of pulmonary disease or cancer can occur 4 to 10 hours after exposure to cadmium, 10 to 20 years after exposure to asbestos, and 20 to 45 years after exposure to silica.

The major health effects now linked to asbestos exposure are asbestosis (a chronic lung disease) and various types of cancer. Once established, asbestosis progresses even after exposure is terminated. The two major asbestos-related cancers are lung cancer (clinically indistinguishable from lung cancer of other causes) and mesothelioma (a rare cancer of the linings of the lungs and abdominal cavity). In addition, asbestos exposure is associated with increased risk of cancer of the esophagus, larynx,

oropharynx, stomach, colon, rectum, and recently with kidney cancer. In 1974, at least 1.6 million workers were exposed to asbestos.

Byssinosis is the most significant health hazard resulting from exposure to cotton dust. The conditions (chest tightness, wheezing, shortness of breath) generally are reversible during the early stages. The more serious (chronic) effects may be arrested (but not reversed) if the worker avoids further exposure. Diagnosis is difficult because the symptoms of chronic byssinosis are indistinguishable from those of chronic bronchitis and emphysema. An estimated 600,000 workers are currently exposed to cotton dust.

The most common form of disease resulting from silica exposure causes progressive scarring of the lungs and loss of pulmonary function. As the disease progresses, complications such as tuberculosis, other chest infections, and ultimately cardio-respiratory failure make diagnosis more difficult. There is no effective treatment to stop the progression of the disease even after removal from exposure. An estimated one million workers currently are exposed to silica.

Other hazardous substances which cause chronic respiratory disease or cancer discussed in the report are beryllium, cadmium, chromium, arsenic, nickel, coal tar products, and diisocyanates.

**Income support.** Public and private income support programs replace about 40 percent of the wages lost by individuals who are severely disabled from an occupational disease.

Although social security is the major source of income support for those severely disabled from an occupational disease, not all severely disabled workers are eligible for benefits. The major reason: they cannot meet the "recency of employment" requirement. Even for those eligible, there is a 5-month waiting period for cash payments and an additional waiting period of 2 years for medicare benefits.

The small percentage receiving workers' compensation benefits result, in part, from difficulties involved in establishing the work relationship of disabling illnesses. Even after establishing that an illness is occupationally related, a disabled worker still has more problems collecting benefits than those injured on the job. For example, on average, a disabled worker with an occupational disease waits a year before receiving the first compensation payment (work injury cases are settled in about 2 months); 60 percent of all occupational disease awards are initially denied (compared with 10 percent of the injury awards); and more than half of the occupational disease awards rely on compromise-and release-agreements involving small lump-sum settlements which release insurance carriers from further liability for both income maintenance and health costs (16 percent of the injury awards receive such treatment).

The *Interim Report* is available from the U.S. Department of Labor, Office of Assistant Secretary for Policy, Evaluation and Research, Washington 20210. □

# Employment and unemployment in the first half of 1980

*As the new decade began, the Nation entered a recession; employment dropped and unemployment surged; housing construction and automobile manufacturing, which strongly influence employment in other industries, showed the earliest signs of deterioration*

RICHARD M. DEVENS, JR.

The relative stability of the 1979 labor market ended abruptly in early 1980. Employment growth, which started to slow down in the first quarter, dropped sharply in the second. For the first time in 2 years the unemployment rate inched up to more than 6 percent in the first quarter, and jumped to 7.5 percent in the second quarter. The quarter-to-quarter surge equaled the largest ever recorded in the series (which dates back to 1940).

The increase in unemployment was not matched by the drop in employment. (See chart 1.) This development reflects the impact of labor force entrants, as well as the complex nature of our economy which permits some sectors to continue to expand while others are laying off workers. The labor force participation rate rose slowly over the first half, reflecting continuing increases in the labor force participation of women.

Even in the relative calm of the late 1979 job market, there were signs in two important industries that foreshadowed the deterioration of the labor market. Residential housing construction and automobile manufacturing, both industries with high potential to produce "ripple effects" through the rest of the economy, have traditionally been among the first to feel the effects of deteriorating economic conditions. In late 1979 and ear-

ly 1980, reports of tight financial markets, falling demand for new housing, oil price boosts, declining auto sales, high interest rates, and other indicators augured the onset of hard times in these two industries.

This article highlights recent trends in total employment and industry payrolls (particularly in the homebuilding and automobile industries), analyzes the sudden and steep rise in unemployment from the perspective of its differential impacts on groups of workers, and examines other labor market indicators to better gauge the overall magnitude of the economic downturn.

## Employment declines

*Total employment.* The impact of production cutbacks on total employment became very obvious in the second quarter of the year. After a small rise in the first quarter, the number of persons holding jobs dropped by 900,000 in the second to 96.9 million (seasonally adjusted). (See table 1.) This was the first quarter-to-quarter employment decline in 5 years and was the third largest absolute decline recorded in the series. The only larger declines came during the 1957-58 and 1973-75 recessions. The proportion of the employed noninstitutional population fell 0.6 percentage point between the first and second quarters of 1980 to 58.4 percent, the lowest level in 2 years.

Total employment rose slightly in the first quarter of 1980. Women accounted for the entire increase, as em-

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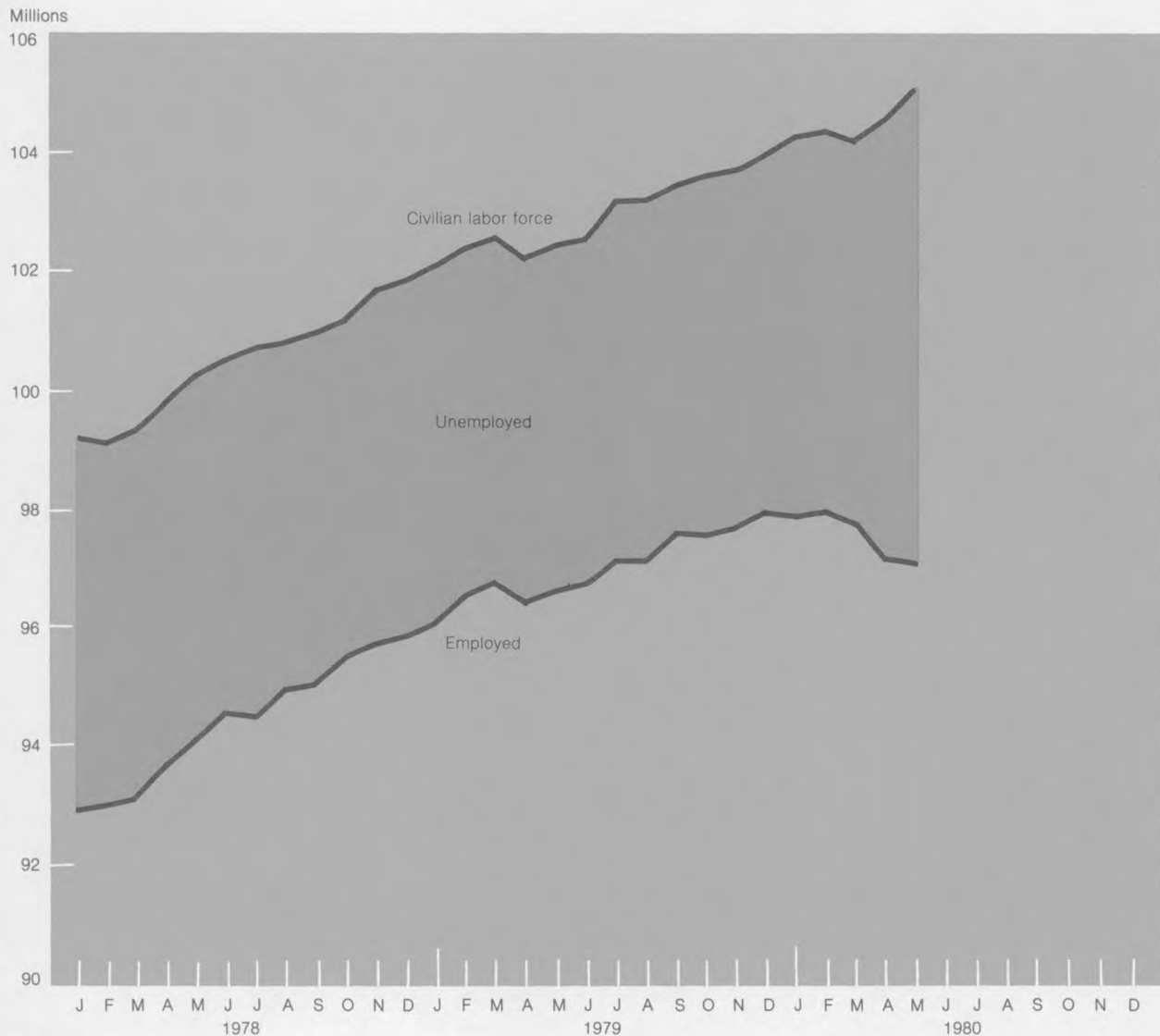
ployment was little changed over the quarter among men and teenagers.<sup>1</sup> The situation in the second quarter was reversed: teenagers suffered about a third of the decline in employment, men accounted for the remaining two-thirds, and the employment of women was unchanged.

Employment among white workers rose by 290,000 in the first 3 months, only to fall by 825,000 in the second quarter to 86.1 million, a net decline of 0.6 percent over the first half. Black workers experienced employment declines in both quarters; the declines totaled 270,000, or 2.4 percent. Employment among blacks

stood at 10.8 million in the second quarter.

*Industry payrolls.* The second-quarter drop in payroll employment totaled 545,000 and occurred almost exclusively in the goods-producing sector of the economy. (See table 2.) Service-producing employment continued to follow its long-run upward trend, although at a considerably slower rate in the second quarter of 1980. The gains in the service sector thus partially offset the decline in the goods sector. Although some part of these divergent movements may be attributed to a long-term shift in the structure of the economy, employment has

**Chart 1. Civilian labor force, the employed, and the unemployed, 1978-80**



SOURCE: Current population survey.

traditionally been more cyclically sensitive in the goods-producing than in the service-producing sector.

The overall pattern of the service-producing sector masked some important differences among the several industries within this broad group. Wholesale and retail trade and transportation and public utilities were the biggest job losers in the sector (down 110,000 and 40,000, respectively) while government and services were job gainers (295,000 and 110,000). Virtually all of the Federal increase was attributable to the impact of temporary hirings for the 1980 Decennial Census.

The two industry groups that were hardest hit at the outset of the economic downturn were construction and

**Table 1. Employment status by sex, age, and race, seasonally adjusted quarterly averages, 1979-80**

[Numbers in thousands]

Characteristic	1979				1980	
	I	II	III	IV	I	II
<b>TOTAL</b>						
Civilian labor force	102,315	102,357	103,328	103,749	104,194	104,701
Participation rate	63.7	63.5	63.8	63.8	63.8	63.9
Employed	96,425	97,467	97,231	97,665	97,804	96,893
Employment-population ratio	59.3	59.1	59.3	59.3	59.2	58.4
Unemployed	5,890	5,890	6,008	6,084	6,390	7,808
Unemployment rate	5.8	5.8	5.8	5.9	6.1	7.5
<b>Men, 20 years and over</b>						
Civilian labor force	54,285	54,299	54,637	54,750	54,963	55,267
Participation rate	80.0	79.7	79.9	79.6	79.5	79.6
Employed	52,129	52,136	52,363	52,432	52,370	51,725
Employment-population ratio	75.0	74.7	74.7	74.4	74.0	72.8
Unemployed	2,156	2,163	2,274	2,318	2,593	3,542
Unemployment rate	4.0	4.0	4.2	4.2	4.7	6.4
<b>Women, 20 years and over</b>						
Civilian labor force	38,393	38,562	39,192	39,489	39,829	40,169
Participation rate	50.3	50.3	50.9	51.0	51.2	51.4
Employed	36,190	36,361	36,983	37,254	37,558	37,569
Employment-population ratio	47.3	47.4	47.9	48.0	48.2	48.0
Unemployed	2,203	2,201	2,209	2,235	2,271	2,600
Unemployment rate	5.7	5.7	5.6	5.7	5.7	6.5
<b>Teenagers, 16-19 years</b>						
Civilian labor force	9,637	9,496	9,409	9,510	9,403	9,265
Participation rate	58.8	57.9	57.5	58.2	57.7	56.9
Employed	8,106	7,970	7,885	7,979	7,876	7,599
Employment-population ratio	48.5	47.7	47.3	47.9	47.4	45.8
Unemployed	1,530	1,526	1,524	1,531	1,526	1,666
Unemployment rate	15.9	16.1	16.2	16.1	16.2	18.0
<b>White</b>						
Civilian labor force	90,161	90,110	90,883	91,323	91,883	92,238
Participation rate	64.0	63.8	64.0	64.1	64.3	64.3
Employed	85,658	85,635	86,174	86,640	86,933	86,109
Employment-population ratio	60.1	59.9	60.1	60.1	60.1	59.4
Unemployed	4,503	4,476	4,660	4,683	4,950	6,129
Unemployment rate	5.0	5.0	5.1	5.1	5.4	6.6
<b>Black and other</b>						
Civilian labor force	12,172	12,223	12,378	12,445	12,360	12,441
Participation rate	61.7	61.6	61.9	61.8	61.0	61.0
Employed	10,781	10,823	11,023	11,048	10,913	10,778
Employment-population ratio	53.5	53.4	53.9	53.7	52.7	51.6
Unemployed	1,391	1,400	1,355	1,397	1,447	1,663
Unemployment rate	11.4	11.5	10.9	11.2	11.7	13.4

**Table 2. Nonagricultural payroll employment, seasonally adjusted quarterly averages, 1979-80**

[Numbers in thousands]

Industry	1979				1980	
	I	II	III	IV	I	II
Total nonagricultural payroll employment	89,141	89,668	90,186	90,557	91,120	90,574
Goods-producing industries	26,426	26,517	26,555	26,549	26,604	25,745
Mining	934	947	971	986	1,005	1,019
Construction	4,403	4,451	4,499	4,566	4,644	4,428
General building						
contractors	1,262	1,276	1,280	1,283	1,280	1,211
Manufacturing	21,088	21,119	21,085	20,997	20,955	20,298
Durable goods	12,771	12,819	12,815	12,721	12,701	12,162
Motor vehicles and equipment	1,046	1,035	968	932	869	743
Nondurable goods	8,317	8,300	8,270	8,276	8,254	8,136
Service-producing industries	62,715	63,150	63,632	64,008	64,516	64,802
Transportation and public utilities	5,082	5,095	5,174	5,210	5,201	5,161
Wholesale and retail trade	20,114	20,201	20,302	20,447	20,592	20,483
Wholesale trade	5,150	5,188	5,221	5,255	5,294	5,265
Retail trade	14,964	15,012	15,081	15,192	15,298	15,218
Finance, insurance, and real estate	4,889	4,948	5,008	5,049	5,102	5,137
Services	16,829	17,018	17,153	17,311	17,527	17,635
Government	15,801	15,890	15,994	15,990	16,093	16,387
Federal	2,758	2,771	2,786	2,772	2,834	3,095
State and local	13,043	13,119	13,208	13,219	13,259	13,291

manufacturing, both of which are in the goods-producing sector. During the second quarter of 1980, construction employment dropped 215,000 to a level of 4.4 million; manufacturing employment fell by 655,000 to 20.3 million.

Within manufacturing, job losses occurred in the second quarter of the year and were concentrated among durable goods industries. These cutbacks were pervasive: lumber and wood products, fabricated metal products, and transportation equipment all sustained substantial reductions. Except in rubber and plastics, the nondurable goods industries showed little or no change in employment in the first half of 1980.

Layoffs in manufacturing, as measured by the Bureau of Labor Statistics' labor turnover survey, which had been averaging less than 1.0 per hundred workers in early 1979, rose from 1.2 to 1.4 per hundred between the last quarter of 1979 and the first quarter of 1980. The manufacturing workweek, which, like layoffs, is considered by analysts to be a good leading indicator of the business cycle,<sup>2</sup> fell sharply in the spring of 1980. The aggregate hours index which reflects changes in both employment and hours declined by 2.3 percent between the fourth quarter of 1979 and the second quarter of 1980.

### Unemployment up among all groups

After edging up in the first quarter, the overall rate of unemployment rose 1.4 percentage points in the second quarter of the year; men, women, and teenagers reported increased rates of joblessness. The jobless rate

for men, usually the most cyclically sensitive, showed a marked deterioration earlier than other worker groups. The rate for men rose from 4.2 to 4.7 percent between the end of 1979 and the first quarter of 1980, and surged to 6.4 percent in the second quarter. The rate for women did not begin to rise until the second quarter, when it advanced 0.8 percentage point to 6.5 percent. The jobless rate for teenagers also rose only in the second quarter, jumping 1.8 percentage points to a mid-year 18.0 percent.

The jobless rate for blacks rose more, in absolute terms, than the rate for whites. For each percentage point rise in the white rate, the rate for blacks rose 1.5 percentage points. However, because the black rate was already more than twice as high as the white rate, the *relative* increase in the black rate was smaller than that in the white rate. This produced a narrowing of the ratio between the two rates, an occurrence that is common in the initial stages of recession but that is usually reversed during the recovery period.<sup>3</sup>

The Hispanic unemployment rate was about unchanged in the first quarter of 1980, but moved up 1.2 percentage points to 10.2 percent in the second quarter. The ratio of Hispanic to white unemployment rates fell between the end of 1979 and the middle of 1980. However, in this case, the changes in unemployment rates were about in proportion (that is, there was about 0.9 percentage point of additional Hispanic unemployment for each increment of 1.0 percentage point of white joblessness).

Following are the seasonally adjusted unemployment rates for whites, blacks, and Hispanics in the last quarter of 1979 and the first half of 1980 (data are not yet available for the Hispanic age-sex groups):

	IV	I	II
White:			
Total . . . . .	5.1	5.4	6.6
Men . . . . .	3.7	4.2	5.7
Women . . . . .	5.0	5.0	5.7
Teenagers . . . . .	14.0	13.9	16.2
Black and others:			
Total . . . . .	11.2	11.7	13.4
Men . . . . .	8.6	9.4	11.8
Women . . . . .	9.9	9.8	11.4
Teenagers . . . . .	34.1	35.2	33.2
Hispanic origin:			
Total . . . . .	8.9	9.0	10.2

*Other indicators.* Developments in major unemployment indicators between the end of 1979 and second quarter of 1980 included a rise in the jobless rate for blue-collar workers, for workers in manufacturing industries, for full-time workers, and for married men. Among occupations, recession-related unemployment increases in the

first half of the year were most visible among sales workers, craft workers, and transport operatives. Among industries, severe increases in joblessness were recorded in construction and durable goods manufacturing.

In the first quarter, the number of persons on layoff (a sensitive cyclical indicator) was above the million mark for the first time since the end of 1977, and rose again substantially in the second. The second quarter level of 1.8 million represented about 23 percent of total unemployment; by comparison, workers on layoff in 1979 accounted for 14.0 percent of total unemployment. New entrants to the labor force declined as a share of unemployment during the second quarter of 1980.

The other widely followed indicators of labor market activity include data on part-time workers and discouraged workers. The number of persons on part-time schedules for economic reasons, sometimes referred to as the "partially unemployed," rose 675,000 in the first half of the year to 4.1 million. After reaching 995,000 in the first quarter, the number of discouraged workers, sometimes referred to as the "hidden unemployed," fell slightly in the second quarter. Increases in the number working part time for economic reasons, moreover, usually lead rises in unemployment. Among discouraged workers, most of the changes occurred among persons citing job-market factors as their reason for discouragement, rather than personal factors.

### Developments in two key industries

The general decline in labor market conditions was preceded by troubled times in the housing construction and automobile industries. Construction and auto manufacturing are industries in which changes in production and employment affect the rest of the economy through relatively strong linkages. For example, the building industry is quite obviously linked to the lumber and wood products industry, and in a similar manner, automaking is linked to the production of steel and other metals. The "sensitivity ratio" is a measure of the effect of demand changes for a product on employment in the industry manufacturing that product and in related industries. A study analyzing the employment drop in the last recession established the sensitivity ratios for housing and automobiles at 2.50 and 2.75, respectively.<sup>4</sup> Following are some related industries in which employment is most likely to be affected by demand changes in the housing and automobile industries:

#### Housing:

- Blast furnaces and steel mill products
- Fabricated metal products
- Railroad and truck transportation
- Lumber and wood products
- Stone, clay, and glass products
- Furniture and fixtures
- Finance, insurance, and real estate



Wholesale and retail trade  
 Miscellaneous business services  
 Miscellaneous professional services

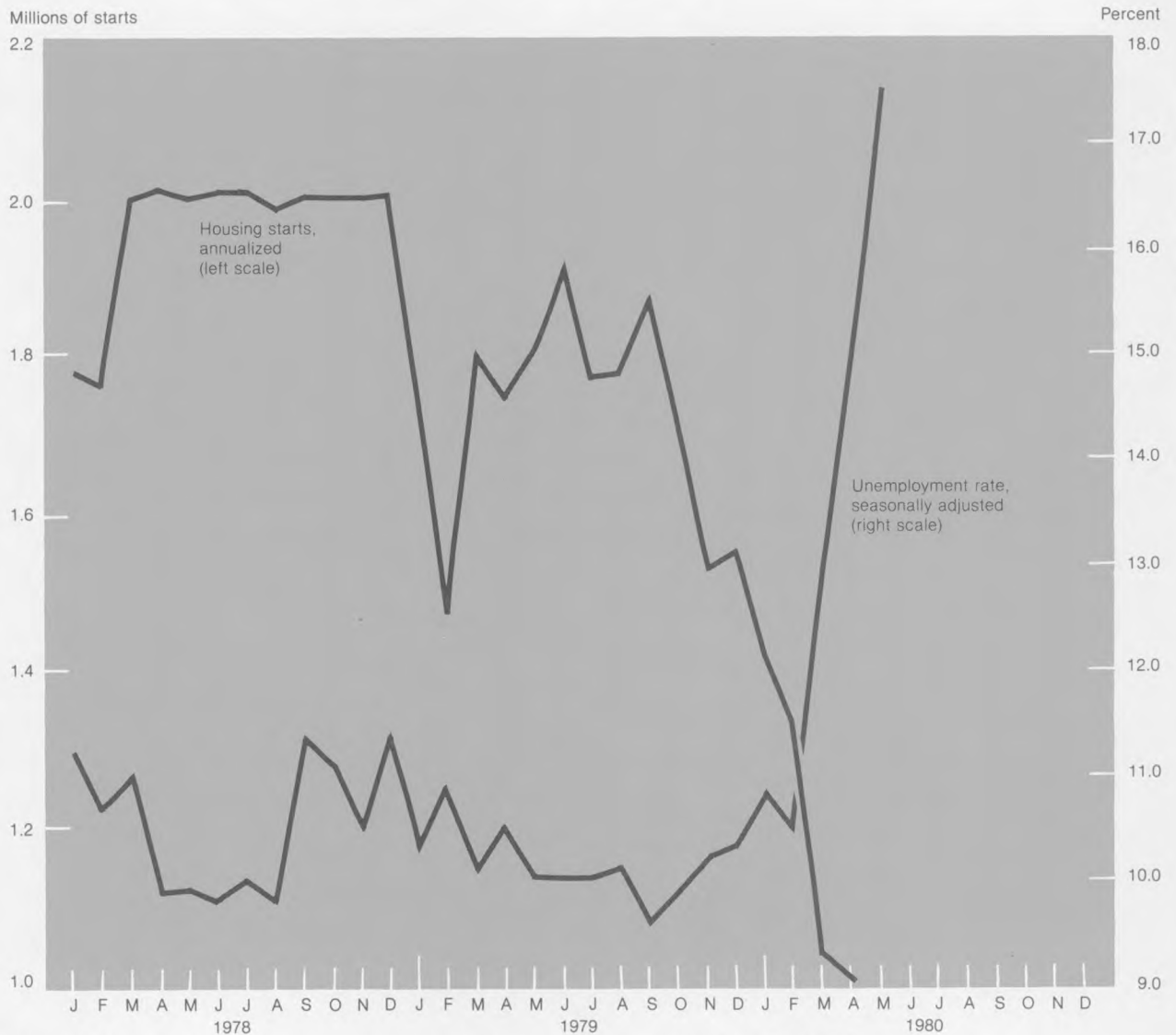
Automobiles:

Blast furnaces and steel mill products  
 Fabricated metal products  
 Railroad and truck transportation  
 Machinery, except electrical  
 Textile mill products  
 Wholesale and retail trade  
 Miscellaneous business services  
 Automobile repair services  
 Rubber and plastics

Using construction as an illustration, the sensitivity ratio (2.5 to 1) indicates that for every job lost in the industry there is a total loss of 2.5 jobs (the original construction job plus 1.5 positions in other industries.)

*Construction and residential housing.* One of the measures of production for the housing market is the annualized rate of private housing units started, as reported monthly by the Bureau of the Census. As chart 2 illustrates, there were signs of weakening in the housing market as early as the beginning of 1979. In each month last year, starts were lower, and in some cases

**Chart 2. Housing starts and unemployment in construction, 1978-80**



SOURCE: U.S. Bureau of the Census (housing starts); unemployment rate from unpublished data from the Current Population Survey.

substantially lower, than in the corresponding month of 1978. In the third quarter of 1979, housing starts declined even more quickly, and by mid-1980, housing starts were hovering around the 1 million mark, about half the level of the second quarters of 1977 and 1978.

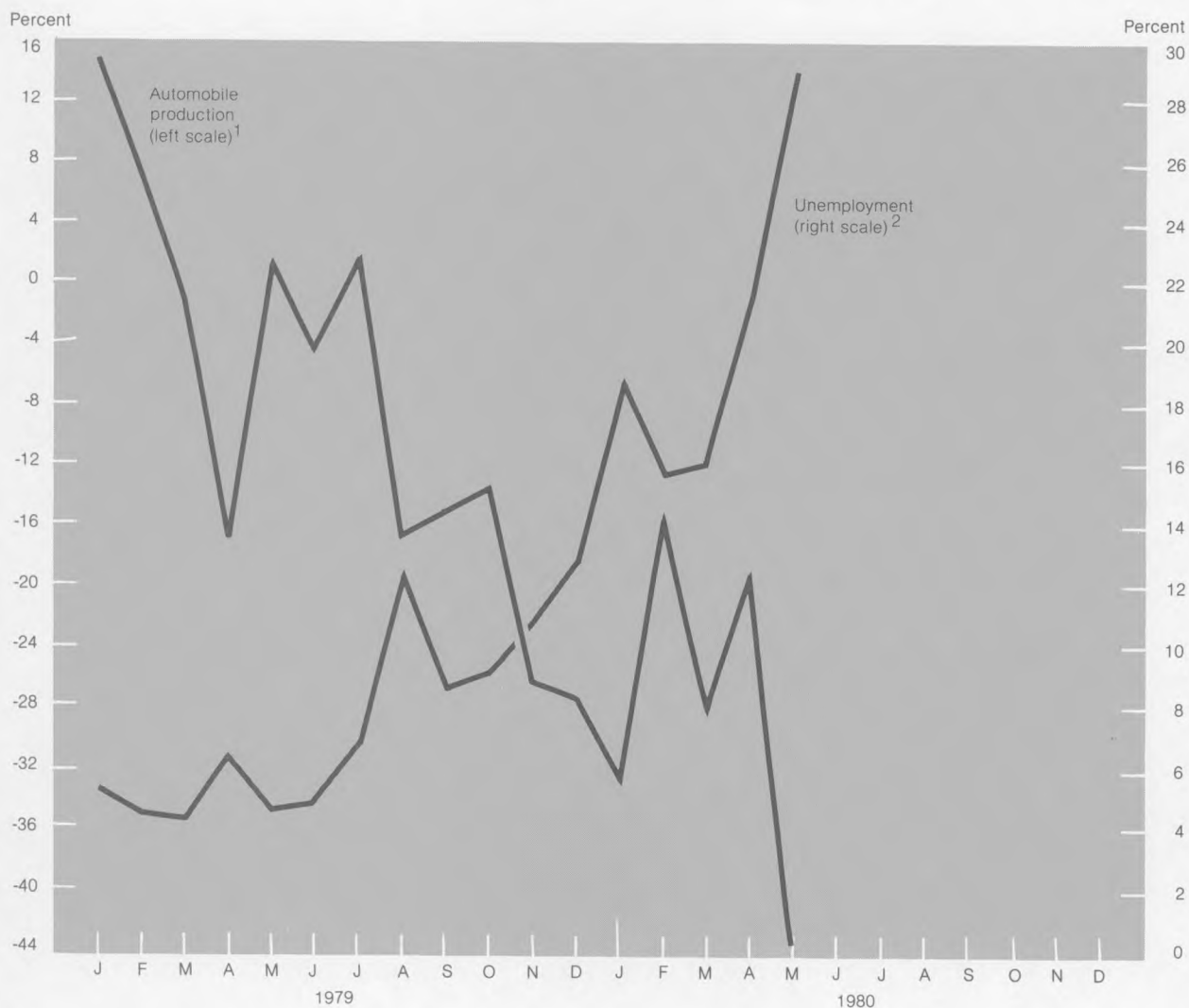
On a seasonally adjusted basis, payroll employment data for the general building construction industry group (SIC 15), a group that includes the bulk of residential construction activity, showed a great deal of strength throughout 1979, when compared to the previous year.<sup>5</sup> This development reflects the relatively high levels of housing starts in 1978. However, there was a complete stop in the housing industry's employment

growth in the fourth quarter of 1979, followed by a sharp contraction in the first 2 quarters of 1980.

Moreover, the unemployment rate for wage and salary workers in the construction industry also illustrated a deteriorating labor market in the housing industry. After dropping in 1977, 1978, and 1979, the jobless rate in construction rose 1.3 percentage points from the last quarter of 1979 to the first quarter of 1980 and then went up 4.9 more percentage points, to 16.3 percent, in the second quarter.

*Automobiles.* Like housing construction, the automobile sector showed signs of declining somewhat earlier than

**Chart 3. Production of automobiles and unemployment in the automobile industry, 1979-80**



<sup>1</sup> Over-the-year percent change in automobile production.

<sup>2</sup> Unemployment rate in the automotive industry, seasonally adjusted.

SOURCE: *Ward's Automotive Reports* (automobile production; unemployment rate from unpublished data from the Current Population Survey).

the rest of the economy. In addition to being affected by the rising costs of financing consumer sales, the domestic automobile industry has been squeezed by the rising prices of gasoline and other petroleum products and the accompanying rapid shift in consumer demand for smaller cars. Demand for domestic automobiles, as reflected by sales figures, started to weaken in early 1979 in response to those factors. Starting in March 1979, sales were below their year-earlier levels for each of the 16 months up through June 1980. Domestic production started a similar pattern of consistent decline a few months later (August 1979), as manufacturers began to reconcile their marketing, inventory, and production plans to falling demand.<sup>6</sup>

These developments had a profound effect on employment and unemployment in the automobile industry. Payroll employment in the industry (motor vehicles and equipment—SIC 371) fell in each of the five quarters beginning in the second quarter of 1979. The total loss of jobs between the first quarter of 1979 and the second quarter of 1980 has been 300,000, or 29 percent. In the second quarter of 1980, there were 745,000 workers on motor vehicle and equipment makers' payrolls.

Unemployment in the auto manufacturing industry also started to change dramatically in the second quarter of 1979. After rising from 3.2 percent in the first quarter of 1978 (the lowest rate since the historically high rates of 1974 and 1975) to 5.2 percent in the second quarter of 1979, the auto industry unemployment rate jumped 4 percentage points in the third quarter of that year. After a smaller increase in the fourth quarter, the rate rose 5.8 points in the first quarter of 1980 and an additional 8.5 points in the second, to 25.2 percent.

(See chart 3.) Between the second quarters of 1979 and 1980, the number of unemployed auto workers rose by a quarter of a million.

### Recession verified

The National Bureau of Economic Research, a well-known group of private-sector economists that traditionally establishes business cycle turning points in the United States, announced that the Nation entered the recessionary phase of the cycle in January 1980. Overall, employment remained relatively strong through that first quarter, however, distinct weakenings in the markets for labor in two key industries appeared as early as mid-1979. Employment in automaking peaked in the first quarter of 1979, and the subsequent drops in production and employment have been partly responsible for falling employment in iron and steel foundries, metal stampings, tire and automotive dealers, and service stations. Cutbacks in housing construction, which started in late 1979 and early 1980, have led to employment losses in saw mills, plywood makers, household appliance manufacturers, floor covering mills, and paving and roofing material makers. By midyear, these developments, combined with the generally weaker total demand associated with recession, brought the Nation's total employment down sharply from its record-setting (both as an absolute and as a percent of population) peak of 1979. The unemployment rate rose to the highest point since the early stages of recovery from the 1973-75 downturn. And, after 5 months of the current downside, several of the leading indicators of marginal employment adjustment, such as the factory workweek, layoffs, and accessions, were continuing to worsen. □

### FOOTNOTES

<sup>1</sup> In this article, "men" and "women" refer to persons age 20 and over; "teenagers" are persons age 16 to 19 years.

<sup>2</sup> For a complete treatment of economic indicators, see Geoffrey Moore and Julius Shiskin, *Indicators of Business Expansions and Contractions* (New York, National Bureau of Economic Research, 1967).

<sup>3</sup> For a detailed discussion of the analysis of relative changes in unemployment, see Curtis Gilroy, "Black and white unemployment: the dynamics of the differential," *Monthly Labor Review*, February 1974, pp. 38-47.

<sup>4</sup> A sensitivity ratio is an industry's direct employment per billion dollars of demand divided by total—direct and indirect—employment per billion dollars. The estimated sensitivity ratios were developed from the input-output matrix, which illustrates the extent of

interindustry relationships among 129 industries. See *The Structure of the U.S. Economy in 1980 and 1985*, Bulletin 1831 (Bureau of Labor Statistics, 1975) and Robert W. Bednarzik, "The plunge of employment during the recent recession," *Monthly Labor Review*, December 1975.

<sup>5</sup> Seasonally adjusted payroll employment series for the general building construction and motor vehicles and equipment industries (SIC 15 and 371) are not published regularly by the Bureau of Labor Statistics, but are prepared for special analyses.

<sup>6</sup> Various issues of *Ward's Automotive Report* (Detroit, Mich., Ward's Communication). Because seasonally adjusted data are not reported by Ward's, year-to-year changes were used to analyze developments in domestic automobile sales and production.

# The labor force experience of black youth: a review

*Jobless rates among black youths have remained far above prerecession levels; regression analysis shows military reductions, population share, and the minimum wage contributed to black youths' problems; jobs programs have helped, as could new efforts that integrate school and work in low-income areas*

GEORGE IDEN

The unemployment situation of black youths grew markedly worse in the 1970's. For black teens, ages 16 to 19, this continued a long-term trend beginning in the 1950's. But for older black male youths, ages 20-24, the increase in unemployment of the 1970's was a marked change from earlier patterns.

Since early 1978, the black youth employment situation showed some modest improvement because of relatively more openings in the job market and because youth employment programs were expanded—particularly under the Youth Employment and Demonstration Projects Act of 1977. These gains, however, were not enough to restore the losses sustained earlier in the decade.

Two longer term factors are taking on increased importance in the labor market situation for black youth: first, black youths seem to have been affected dispropor-

tionately by the generally unfavorable job market that characterized much of the 1970's. Second, although school enrollment rates for black youths have increased substantially, black students seem to be having a particularly difficult time in obtaining part-time jobs. This, in turn, represents a loss of potential experience and income that may exacerbate future employment difficulties.

A dual situation seems to characterize the experience of black youths in the labor market in the 1970's. Wages of black youths are very close to those of white youths.<sup>1</sup> In addition, some recent research indicates substantial progress during the 1960's and 1970's in closing the occupational gap between white youths and black youths.<sup>2</sup> However, an examination of employment and unemployment indicators suggests that differentials between blacks and whites seem to be widening. Thus, it may be becoming increasingly difficult for a growing proportion of black youths to get jobs at the same time a growing proportion may be getting better jobs.

The elements behind the worsening job market expe-

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rience of black youths are investigated in three sections. First, trends in black youth unemployment and employment during the 1970's are examined, with emphasis on the period since 1977.<sup>3</sup> Second, a simple multiple regression model is used to analyze factors affecting teenage employment rates by race, including the effects of overall labor market conditions, supply factors, the minimum wage, and the expansion in youth employment programs after 1977. The third section discusses the increasing school enrollment rate for black youths coupled with extremely low labor force participation rates of young black students. Following this analysis, principal conclusions and policy implications are summarized.

### Review of labor market trends

In analyzing the labor market situation of black youths, it is important to focus on employment-population ratios as well as unemployment rates because a large proportion of black youths are not actively seeking a job and therefore are not counted as unemployed. For example, in 1978 the number of unemployed black teenagers was about 381,000. But, if the labor force participation rate had been the same for black as for white teens, there would have been about 500,000 more young blacks in the labor force. In addition, youth labor force participation rates tend to decline during recessions and to increase during business expansions. Thus, changes in unemployment rates understate both the deterioration in the youth labor market during recessions and the improvement during recoveries. For example, the unemployment rate of black teenagers in 1978 was about the same as in 1975—the worst recession year—but the employment-population ratio showed significant improvement.

Trends in unemployment rates and employment-population ratios for black and for white teenagers in the 1970's are summarized in table 1. The most striking thing about this summary is that unemployment and employment indicators for black teenagers seldom im-

**Table 2. Employment indicators for black youths, ages 20 to 24, selected years, 1970 to 1979**

[In percent]						
Measure	1970	1973	1975	1977	1978	1979
Unemployment rate						
Men .....	12.6	12.6	22.9	21.7	20.0	17.0
Women .....	15.0	17.6	22.5	23.6	21.3	20.8
Employment-population ratio <sup>1</sup>						
Men .....	73.0	71.5	60.4	61.2	62.4	66.5
Women .....	49.0	47.4	43.6	45.4	49.4	48.0
Labor force participation rate <sup>2</sup>						
Men .....	83.5	81.8	78.4	78.2	78.0	80.1
Women .....	57.7	57.5	56.2	59.4	62.8	61.5

<sup>1</sup> Civilian employment as a percent of the civilian noninstitutional population.

<sup>2</sup> Civilian labor force as a percent of the civilian noninstitutional population.

proved and frequently got worse, while that was not the case for white teenagers. For example, in the recovery from the 1974–75 recession, the black teenage unemployment rate was actually higher in 1977 than in 1975; not until 1978 did the black teenage unemployment rate decline noticeably. By contrast, the unemployment rate for white teenagers declined 2.5 percentage points by 1977, and by 1978 it approached the 1973 level.

Data from the 1974–75 recession and previous recessions since 1954 suggest that teenage employment—and black teenage employment in particular—is much more affected by the business cycle than overall employment. In addition, the employment of black teenagers continues to fall or fails to rise for several quarters after recovery begins. In the 1975–78 expansion, black teenage employment showed no growth in the first two years.

Unemployment and employment indicators for older black youths, ages 20 to 24, are summarized in table 2 for the period since 1970. These young blacks also are disproportionately affected by the business cycle. However, the increase in their unemployment rate and decline in their employment-to-population ratio during much of the 1970's may reflect more than cyclical influences. There was significant improvement in these indicators in 1978–79, but it is too early to determine if the improvement is more than temporary.

*Location.* Unpublished Bureau of Labor Statistics data on employment and unemployment of black youths in 1978 show that employment problems for black youths are especially severe in low-income areas of large cities, particularly older cities along the Atlantic coast and in the industrial Midwest. Comparisons of unemployment rates for poverty and other areas understate the true differences in labor force activity because labor force participation rates are significantly higher in areas where average income is above the poverty line. Nevertheless, huge gaps in employment status exist between white youths and black youths regardless of location.

**Table 1. Employment indicators for teenagers (ages 16 to 19), by race, selected years, 1970 to 1979**

[In percent]						
Measure	1970	1973	1975	1977	1978	1979
Unemployment rate						
Black .....	29.1	30.2	36.9	38.3	36.3	33.5
White .....	13.5	12.6	17.9	15.4	13.9	13.9
Employment-population ratio <sup>1</sup>						
Black .....	28.9	28.0	24.6	23.7	26.5	27.1
White .....	44.5	49.0	46.6	50.2	52.5	52.7
Labor force participation rate <sup>2</sup>						
Black .....	40.5	40.2	39.0	38.3	41.6	40.8
White .....	51.5	56.0	56.7	59.4	61.0	61.2

<sup>1</sup> Civilian employment as a percent of the civilian noninstitutional population.

<sup>2</sup> Civilian labor force as a percent of the civilian noninstitutional population.

*Work force factors.* The demographic bulge (in the size of the youth population) has generally been emphasized as an important cause of the increase in teenage unemployment rates in the 1960's. Additional factors such as location, discrimination, inadequate education, and changing characteristics of jobs have been emphasized as causes for the increase in black teenage unemployment.<sup>4</sup> But what factors account for the increase in unemployment rates of black—but not white—males, ages 20 to 24 beginning about 1970? The reasons may include the following:

- The unfavorable job market for entry-level workers in general during the decade—a condition exacerbated by the bulge in the population size of this age group, the end of rising school enrollment rates for white youths, and increases in labor force participation rates of women;
- The decline in the size of the military by about 1 million men in the under age 25 group between the late 1960's and the early 1970's;
- The declining proportion of young black males with family responsibilities;
- Changing requirements for entry-level jobs; and
- The long-term effects of more than a decade of very high unemployment for black teenagers.<sup>5</sup>

In sum, the job market for youths became much more congested in the 1970's compared even with the previous decade. Youths, in general, suffered a decline in earnings relative to older workers. But for some youths, particularly black men, the labor market in the 1970's meant no job rather than one at a lower wage.

Rapid growth in the number of black youths, in conjunction with these labor force factors, has exacerbated the situation. The more rapid growth of the number of black youths compared to the growth in the white youth population would not be a causal factor if barriers such as discrimination, location, and educational deficiencies were not also present.

It may be that labor market indicators would have deteriorated for young black men ages 20 to 24 years in the 1960's, if it had not been for the personnel requirements of the Vietnam War and the exceptionally favorable job market of 1965–69. Changing family responsibilities over time probably also played some role. For example, between 1973 and 1978, the proportion of young black men (ages 20 to 24) in the labor force, who were married living with spouse, declined from almost 40 percent to about 25 percent. If marital arrangements had been the same in 1978 as in 1973 and unemployment differentials among marital groups remained the same, the unemployment rate for the group would have been about 1¾ percentage points lower. However, marital arrangements may be related to unemployment conditions, so that causation runs both ways. In any case, the proportion of young white men married living with spouses also declined during this period but without an increasing trend in unemployment.

## Regression analysis

Teenage employment-population ratios, by race, can be analyzed using multiple regression techniques. Employment-population data are used because, with unemployment rates for black youths so high, changes in labor force participation are both hard to explain and of questionable importance.

The model underlying the regression analysis has become fairly standard. The employment-population ratio for the teenage group is strongly related to overall labor market conditions, represented by the unemployment rate for "prime working-age" men (ages 25 to 54). In addition, this relationship was thought to be nonlinear, with teenage employment rates showing a greater response when jobseekers outnumber jobs than when the reverse exists. The reasons for this nonlinearity include a larger supply elasticity for youths compared with the labor force in general and a preference on the part of employers for more mature and experienced workers.

The relative supply of teenagers would also be a relevant factor depending on how readily teenagers may be substitutable for other groups in the labor market and whether the market is free to adjust. Two supply factors are important here: the proportion of teenagers in the population of working age and the size of the armed forces relative to the size of the teenage population. In addition, the level and coverage of the minimum wage could also be a consideration because of possible constraints on the wage flexibility of the youth labor market in response to fluctuations in supply and demand.

Government employment policy, particularly the Youth Employment and Demonstration Projects Act of 1977 (YEDPA), may have had an influence on teenage employment rates. An attempt was made to capture the effect of the recent youth initiatives by including a dummy variable which was assigned a value of 1 for quarters beginning with 1978:1. Enrollments in the youth act programs began increasing very rapidly beginning in 1978:1 and leveled off by mid-1978 at approximately 200,000. In addition, the Summer Youth Employment Program was increased by about 100,000 jobs in 1978 compared with 1977. The additional jobs associated with these programs were disproportionately filled by minority youths.

Finally, a time trend was included to capture other longer term influences. For white teenagers, the trend variable was assigned a value of 1 beginning with the first quarter of 1965, 2 for the second quarter, and so on, and zero before 1965. Although admittedly quite arbitrary, this formulation was chosen because the employment-population ratios for white teenagers apparently began increasing on a long term basis about 1965, as did white teenage labor force participation rates. For black teenagers, the regression time trend was started at

the beginning of the period (1954:1) because a perusal of the employment-population series suggested that there might be a negative trend throughout 1954-79.<sup>6</sup>

Using quarterly data for the period 1954:1 through 1979:2, the parameters for the following equation were estimated for black and white teenagers separately:

$$E/P = a + b_1 UH_{-1} + b_2 UL_{-1} + b_3 T + b_4 M + b_5 P + b_6 MW + b_7 D + E \text{ where:}$$

- E/P = employment-population ratio (in percent) for teenagers, by race;
- UH<sub>-1</sub> = the unemployment rate of men ages 25 to 54 in excess of 3.4 percent, and zero otherwise, lagged 1 quarter;
- UL<sub>-1</sub> = the unemployment rate of men ages 25 to 54 minus 3.4 percent, when the unemployment rate of that group was equal to, or fell below, 3.4 percent, and zero otherwise, lagged 1 quarter;
- T = time trend, beginning with 1954:1 for blacks and 1965:1 for whites (T<sub>2</sub>);
- M = number of persons in the armed services divided by the teenage population, ages 16 to 19;
- P = teenagers, ages 16 to 19, as a percent of the population ages 16 to 64;
- MW = minimum wage variable consisting of the basic minimum wage as a percent of hourly earnings, weighted by industry employment and covered under the law, with a distributed (second degree polynomial) lag over 6 quarters;
- D = dummy variable equal to 1 for quarters beginning 1978:1;
- E = error term.

The results—summarized in table 3—confirm that

youth employment is very sensitive to overall job market conditions. But in addition, they indicate a larger response to an expanding job market when unemployment for the prime working-age male group is below the postwar average, compared with unemployment above the average. In the equation for black teenagers, the coefficient for high unemployment periods (b<sub>1</sub>) was quite small and that for low unemployment periods (b<sub>2</sub>) quite large—suggesting that the black teenage employment-population ratio does not increase very much until the unemployment rate for prime working-age men gets below 3.4 percent.

In an unfavorable job market, the addition of some job opportunities helps but does not seem to greatly spur employment of black teenagers. After the unemployment rate for prime working-age males declines to the average for the postwar period, further expansion of the job market seems to cause more marked improvement. In the 1970's, however, the unemployment rate for males ages 25 to 54 seldom got below 3.4 percent.

The coefficient for the military variable was both large and statistically significant in the equations for black teenagers, but not in those for white teenagers. This suggests that black youths have relatively more difficulty adapting to fluctuations in military personnel needs than white youths.

The population share and minimum wage variables proved to be important for both races, but comparatively more important for blacks.<sup>7</sup>

The results suggest that the recent youth employment programs may have increased the employment rate for black teenagers by about 1 percentage point, although this is not statistically significant at the 95 percent confidence level. The effect of the jobs programs on white teenage employment rates appears negative, but this result also was not significant.

The time trend variable was not statistically significant in the equations for black teenagers; but it was

**Table 3. Regression results of factors affecting teenage (age 16 to 19) employment rates, by race, 1954 to 1979**

("t" values in parentheses)

Race and sex	Adult male unemployment (t-1)		Time trend		Military personnel level	Population ratio	Minimum wage	Jobs programs	RHO <sup>1</sup>	Constant	R <sup>2</sup>
	High	Low	1954	1965							
Black											
Teenagers	0.64 (2.16)	-3.36 (5.72)	0.07 (1.58)		23.56 (1.98)	-2.16 (3.89)	-0.36 (2.99)	0.94 (.86)	0.50 (5.46)	56.43 (8.09)	0.93
Male teenagers	1.51 (4.22)	-2.70 (4.02)			39.35 (4.13)	-1.87 (3.16)	-43 (4.69)	.91 (.75)	.28 (2.79)	64.64 (8.41)	.95
White											
Teenagers	-1.00 (5.85)	-2.60 (7.52)		.31 (18.56)	-1.56 (.27)	-1.54 (4.63)	-27 (4.42)	-.42 (.69)	.58 (6.50)	65.38 (15.24)	.97
Male teenagers	-1.20 (5.53)	-3.35 (7.93)		.29 (13.91)	-1.38 (.19)	-1.83 (4.44)	-34 (4.53)	-.90 (1.22)	.60 (6.47)	77.05 (14.45)	.95

<sup>1</sup> Autocorrelation correction factor.

positive, significant, and rather large in the equation for whites. As a test, the time trend in the equation for whites was started at the beginning of the period (1954:1) rather than the first quarter of 1965. With this specification, the coefficients for the time and unemployment variables were not substantially changed, but that was not the case for several of the other coefficients. Specifically, the coefficient for military became significant and positive, while the coefficients for the minimum wage and population share variables were larger.

In the equations for whites, the sensitivity of some of the coefficients to the specification of the time variable suggests that their magnitudes are especially uncertain.<sup>8</sup> However, this problem was not apparent in the equations for black teenagers, because the coefficient for the time trend was not statistically significant and because omission of the time variable did not substantially affect other coefficients.

The results suggest that the military factor, population share, and minimum wage were approximately of equal importance in accounting for the decline in the employment-population rate for black teenage males during the 1955 to 1970 period—each contributing approximately 6 to 7 percentage points to the decline. However, in 1970–79, the military factor became relatively much more important, accounting for a decline of about 4 percentage points. In the latter period, the minimum wage accounted for only about 1 percentage point of the decline, while the population share had a slightly off-setting effect.

### Student workers: a wide racial gap

The racial gap in labor force participation rates for youths is much larger for students than for nonstudents. In October 1977, the labor force participation rate for white teenagers in school was 22.5 percentage points higher than the comparable rate for black teenagers; the racial gap was 13.3 percent for the out-of-school group. (See table 4.)

In the early 1970's school enrollment rates were higher for white teenagers than black teenagers. By the end of the decade, however, the situation had been reversed. Substantially increased rates of school enrollment for black youths and decreased rates for most groups of white youths may "explain" an important part of the widening racial gaps in labor force participation rates and employment-population ratios. Although the gains in school enrollment rates for black youths are impressive, one of the reasons behind the increases is that black youths tend to finish high school at older ages than white youths. Furthermore, poor alternatives in the job market may be a factor influencing young blacks' decisions to stay in school.

Why are labor force participation rates so much low-

**Table 4. Labor force participation rates and school enrollment rates of youths by race, 1970 and 1977**

[In percent]

Sex and race	Labor force participation rate				School enrollment rate	
	Youth enrolled in school		Youth not in school		1970	1977
	1970	1977	1970	1977		
Male						
Ages 16 to 19						
Black .....	26.2	27.6	72.3	77.7	66.6	74.0
White .....	41.5	49.4	87.3	90.5	75.4	69.1
Ages 20 to 24						
Black .....	41.3	43.7	90.5	88.8	18.1	27.5
White .....	52.1	55.7	95.3	95.7	30.9	25.7
Female						
Ages 16 to 19						
Black .....	22.3	21.9	50.7	56.9	64.1	68.4
White .....	36.7	45.1	61.4	69.3	66.1	65.2
Ages 20 to 24						
Black .....	38.9	40.6	60.7	64.6	13.0	21.2
White .....	51.9	59.2	59.9	70.8	15.5	19.8

er for black teenagers in school compared with their white counterparts? One basic reason is that there are simply many more students looking for parttime jobs than are available, so the jobs are rationed. The most advantaged students tend to get the jobs. Parents' influence in the community may be especially important in securing part-time jobs for their student sons and daughters. The minimum wage may exacerbate the employment difficulties of black students by reducing the number of jobs potentially available. Discrimination also plays a role, and its existence can be more easily concealed by employers faced with many more jobseekers than needed.

In addition, location may play a role, because part-time jobs for students are concentrated in retail trade,<sup>9</sup> and that sector is, in general, not prosperous in large central cities where many black youths are located. Poorer quality of education available to black youths in inner city schools may also be a substantial handicap in competing for limited job opportunities.

Some observers argue that labor market experience for youths in school is of little consequence and that public resources should be concentrated on youths who are "out of school and out of work." Although that group may well be more disadvantaged than the in-school group, it is also true that some work experience while in school seems to improve job opportunities after leaving school.<sup>10</sup> Moreover, recent black high school graduates tend to have extremely high unemployment rates. The Current Population Survey for October 1978 indicated an unemployment rate of approximately 40 percent for recent black high school graduates, compared with 10 percent for recent white graduates.<sup>11</sup> Thus, less job experience and poor labor market knowledge may partially explain the difficulty of black youths in obtaining post-school employment.<sup>12</sup>



## What future course?

Based on the unemployment and employment experience of black youths in the 1970's, the outlook for the early 1980's is not encouraging. In general, black youth unemployment continued to get worse in the 1970's. Although some improvement took place beginning in 1978, it was not enough to make up for losses in the first 7 years of the decade. In 1978, the black youth unemployment rate remained above 40 percent in central city poverty areas and above 30 percent in suburban and rural areas.

One of the most troublesome issues identified in this analysis is that the black teenage employment-population rate is much less responsive to improving job markets when measured unemployment remains above average historical levels. Unfortunately, we seem to be in an era of continually unfavorable job markets—partly as a result of an inflationary environment and partly as a result of very rapid growth in the labor force. According to some analyses,<sup>13</sup> unemployment in 1978 may have been at the lowest noninflationary level now possible, and yet the unemployment rate of men age 25 to 54 was very close to its average for the postwar period—not its average for business cycle peaks. Moreover, most recent forecasts show overall unemployment rising from its 1978–79 plateau of about 6 percent to more than 8 percent in 1980–81. In sum, the gains in black youth employment since 1978 seem likely to be only temporary, given the outlook for a weaker economy and the adverse trend in the labor market for black youths during much of the 1970's.

The size of the armed forces in relation to the size of the teenage group was an important factor affecting black, but not white, teenage employment rates.

The turnaround in the demographic situation should help youth employment rates of both races, but in the case of blacks the improvement seems likely to be small in relation to current employment indicators.

The direct positive effects of the youth employment

programs have already been realized by black youths, with additional benefits only if there is a further increase in the scale or effectiveness of these programs. The only major recent policy innovation that has not yet been phased in is the targeted jobs tax credit passed by Congress in 1978. The Administration has recently proposed a modification and expansion of youth programs, but according to the present time table, it would not have much effect until after 1981. However, both efforts reflect some commitment to resolve the problems of black youth employment.

The case for doing more to reverse the trends in black youth employment and unemployment includes the following: the extreme concentration of serious youth employment problems—geographic and racial—has especially serious implications because such an environment often undermines productive or socially constructive behavior. The problems seem to be getting worse, and there is some evidence to suggest that the employment problems of teenagers become employment problems of young adults. Moreover, black youth unemployment probably can be reduced without increasing the inflation rate.

Finally, the very low employment rates for black students—and the probability that work experience during school provides invaluable job market information—suggests the need to target employment programs to help low-income youths in school, as well as those out of school and out of work. Several of the policy instruments for this kind of initiative are already in place; for example, the provisions in Title IV of the Comprehensive Employment and Training Act, which were designed to encourage the cooperation of local school systems, and the targeted jobs tax credit. Also, the Administration's recent proposals imply close cooperation between CETA, the public schools, and the private sector. However, these kinds of policies may be especially difficult to implement successfully because they require a high degree of commitment and cooperation. □

### — FOOTNOTES —

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<sup>1</sup> For example, in May 1976, median hourly earnings were \$2.48 for white and \$2.40 for black teenage males. See *Weekly and Hourly Earnings Data*, Bureau of Labor Statistics, Special Report 195, 1977.

<sup>2</sup> See, for example, Richard B. Freeman, "Time Series Evidence on Black Economic Progress: Shifts in Demand or in Supply?" Harvard Institute of Economic Research, Discussion Paper 632, July 1978.

<sup>3</sup> Throughout the paper, statistics cited for "black" youths pertain to "black and other nonwhite" individuals. The reason for this is to permit comparisons with earlier periods for which data are unavailable for blacks separately.

<sup>4</sup> See, for example, *Youth Unemployment: The Outlook and Some Policy Strategies*, (Washington, Congressional Budget Office, 1978); Norman Bowers, "Young and marginal: an overview of youth employment," *Monthly Labor Review*, October 1979, pp. 4–16; and Morris J. Newman, "The labor market experience of black youth, 1954–78," *Monthly Labor Review*, October 1979, pp. 17–27.

<sup>5</sup> Many people have speculated that poor experience in the labor market may have longer-term repercussions for youths. Recently some research that documents this hypothesis has become available. See Wayne Stevenson, "The Relationship Between Early Work Experience and Future Employability," in A.V. Adams and G.L. Mangum, eds., *The Lingering Crisis of Youth Unemployment* (Kalamazoo, Mich., W.E. Upjohn Institute for Employment Research, 1978); and David Ellwood, "Teenage Unemployment: Permanent Scars or Temporary Blemishes," *Conference on Youth Joblessness and Employment* (Washington, National Bureau of Economic Research, 1979).

held at Arlie House, Va., May 17-18, 1979.

<sup>6</sup> For a discussion of some of the factors, for which the time trend is a proxy, see *Youth Unemployment: The Outlook . . .*, and Morris J. Newman, "The labor market experience . . ."

<sup>7</sup> For a study of the employment impact of the minimum wage on teenagers during 1947-68, see Jacob Mincer, "Unemployment Effects of Minimum Wages," *Journal of Political Economy*, August 1976, Part 2. For a summary of the econometric literature on the impact of the minimum wage, see Robert S. Goldfarb, "The Policy Content of Quantitative Minimum Wage Research," *Proceedings of the 27th Annual Meeting of the Industrial Relations Research Association*, 1974. Other recent studies include James F. Regan, Jr., "Minimum Wages and the Youth Labor Market," *The Review of Economics and Statistics*, May 1977; and Edward M. Gramlich, "The Impact of Minimum Wages on Other Wages, Employment, and Family Incomes," *Brookings Papers on Economic Activity*, No. 2, 1976.

<sup>8</sup> Multicollinearity among several key variables has been a frequent problem encountered in research on the employment impact of the minimum wage. See Robert S. Goldfarb, "The Policy Content . . .," pp. 263-64.

<sup>9</sup> In October 1978, about one-half of all employed teenagers who

were enrolled in school were employed in wholesale and retail trade.

<sup>10</sup> See Stanley P. Stephenson, Jr., "The Transition from School to Work With Job Search Implications," in *Conference Report on Youth Unemployment: Its Measurement and Meaning*, (Washington, U.S. Department of Labor, 1978).

<sup>11</sup> Bureau of Labor Statistics, *Students, Graduates, and Dropouts in the Labor Market, October 1978*, Special Labor Force Report 223, Table 3.

<sup>12</sup> Several researchers have documented that youths from lower socioeconomic groups score low on knowledge of the labor market. Moreover, their perceptions about the labor market tend to be exaggerated or distorted. See James S. Coleman, "The School to Work Transition," in *The Teenage Unemployment Problem: What are the Options* (Washington, Congressional Budget Office, 1977).

<sup>13</sup> For discussions of the lowest noninflationary unemployment rate, see Michael L. Wachter, "The Demographic Impact on Unemployment: Past Experience and the Outlook for the Future," in *Demographic Trends and Full Employment*, National Commission for Manpower Policy, Special Report No. 12, December 1976; and *Economic Report of the President*, January 1979, p. 118.

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### Benchmark revisions

Establishment statistics published by the Bureau of Labor Statistics are based on a monthly survey of 160,000 business establishments and government units. Once a year, these survey statistics are adjusted to benchmarks of complete counts. The counts are derived from unemployment insurance records.

The data in tables 8-20 of the Current Labor Statistics section of this issue of the *Monthly Labor Review* have been revised as a result of such benchmark revisions. The tables also reflect revised seasonal factors to incorporate seasonal experience through March 1980.

An article discussing the benchmark revisions and their effect on the establishment statistics appears in the July issue of the BLS periodical, *Employment and Earnings*.

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# Women in domestic work: yesterday and today

*A century ago, half of all wage-earning women were private household workers; in 1979, fewer than 3 percent were so employed; today's black domestic is likely to be a middle-aged cleaner or servant; a white domestic, a young babysitter*

ALLYSON SHERMAN GROSSMAN

Private household workers—a group that consists of cleaning workers and servants, childcare workers, housekeepers, cooks, and launderers—continue to dwindle in number. Domestic work is viewed more and more as a low-skill, low-status occupation, and young women, especially black women, are increasingly shying away from it. Today, domestic workers, who tend to be older women with relatively little education, often receive less than the minimum wage. This article provides a historical overview of private household workers and a close look at their status today. Because 98 percent of all private household workers are women, this article focuses exclusively on them.

## **The past: domestics predominate**

A century ago, private household work<sup>1</sup> was the predominant occupation of all gainfully employed women and girls 10 years old and over. Always a female occu-

pation, in 1870, domestic work accounted for more than half of all female wage earners. (See table 1.) While native-born white women tended to shun this occupation which did not require formal education, experience, or well-developed skills, it was an important source of income for many immigrant and black women.<sup>2</sup>

During the 40 years between 1870 and 1910, the number of private household workers nearly doubled—from 960,000 to 1.8 million—as a result of both a steadily growing supply of labor and an ever-increasing demand. A great influx of immigrants had entered the country, and domestic service was the only type of employment available to many. These newly arrived women often replaced other household workers, particularly native-born white women, who were leaving their jobs for a variety of reasons, such as marriage, childbirth, or work in other occupations. At the turn of the century, private household work required living in the employer's residence, and such service was often terminated, or at least interrupted, when a woman married or had a child. During this period, the rapid industrialization

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and concomitant urbanization of the country gave rise to an expanding number of middle and upper class families who wanted and could afford household help. In fact, the demand for private household workers far outstripped supply.

The number of private household workers declined between 1910 and 1920, as immigration fell and child labor diminished. Proportionately more immigrants from Russia, Poland, and Italy were entering the country during this period, and they were less inclined to be domestic workers than the women from Germany, Ireland, and Scandinavia who had been in the forefront of earlier waves of immigration. Also, young girls age 10 to 15, who formerly had been a source of domestic workers, were increasingly unavailable, as child labor came under attack and compulsory education spread. In addition, the continued urbanization of the country and the onset of World War I altered the focus of female employment. More and more women worked at professional (teaching and nursing), clerical, manufacturing, and sales jobs, so that private household workers accounted for a declining share of female workers.

Yet, demand continued to be strong, as domestic work was viewed by some employers as providing enviable opportunities to women. As one female author discussed in relation to the dearth of such workers in 1915:

Work in a private house is infinitely more desirable, from the point of view of the influence of one's surroundings,

than daily labor in a factory or store. The variety of domestic duties, the freedom of moving from one room to another, or sitting or standing to do one's work, are much to be preferred to the work that compels the worker to stand or sit in one place all day long.

If it be admitted, then, that housework is in itself a desirable and suitable occupation for women who must earn their living by manual labor, it cannot be the work itself, but the conditions surrounding it that make it so distasteful to the modern working woman.<sup>3</sup>

The number of domestic workers rebounded to nearly 2 million between 1920 and 1930, in part, because immigration again accelerated and women more inclined to household work were entering the country. However, other types of employment were growing even faster, and domestic work continued to lose ground as a major source of employment for women. By this time, the nature of private household work had changed, evolving into a job much like any other: the employee lived independently of the employer.

The changing racial composition of the occupational group was a primary force behind this evolution. By the end of World War I, the number of white women in domestic service had dropped substantially. At the same time, black women—who had been concentrated in household work in the South—started migrating in great numbers to Northern cities. They began taking the places of white women who left the occupation for marriage or for other jobs that were increasingly available.

Black women, regardless of marital status, worked outside their homes to a much greater extent than white women. The Department of Labor's Women's Bureau in 1920 reported ". . . it is a well-known fact that most Negro women must continue as breadwinners practically all their lives, marriage rarely meaning a withdrawal from the wage earning ranks."<sup>4</sup> Live-out jobs allowed married black women to work and still raise families of their own. Because private household employment was, in many cases, the only type of work open to them, black women began to account for a growing proportion of domestic workers.

Nevertheless, the high point for private household work as a major employer of all women had long since passed. Immigration had peaked years before, and World War II and its aftermath wrought tremendous changes in American society and the nature of work performed by women. By 1950, fewer than 1 of 10 employed women were private household workers. More recently, with the rapid expansion of the female labor force, this proportion has dropped further.

### The present: numbers declining

At the beginning of the 1970's, there were 1.5 million female private household workers, and they accounted

**Table 1. Private household workers as a proportion of all employed women, selected years, 1870-1979**

[Numbers in thousands]

Year	All employed women	Private household workers	
		Total	As a percent of all employed women
1870	1,836	960	52.3
1880	2,647	1,078	40.7
1890	3,915	1,433	36.6
1900	5,319	1,526	28.7
1910	8,076	1,784	22.1
1920	8,550	1,360	15.9
1930	10,752	1,909	17.8
1940	11,178	2,277	20.4
1950	17,340	1,459	8.4
1960	21,874	1,943	8.9
1970	29,667	1,518	5.1
1971	29,875	1,449	4.9
1972	31,072	1,403	4.5
1973	32,446	1,330	4.1
1974	33,417	1,201	3.6
1975	33,553	1,141	3.4
1976	35,095	1,095	3.1
1977	36,685	1,123	3.1
1978	38,881	1,135	2.9
1979	40,446	1,062	2.6

SOURCES: *Historical Statistics of the U.S. Colonial Times to 1970*, Bicentennial Edition Part I (U.S. Bureau of the Census, 1975).

Employment and Training Report of the President (U.S. Department of Labor, Employment and Training Administration, 1979); and Alba M. Edwards, *Sixteenth Census of the United States: 1940, Population Comparative Occupation Statistics for the United States, 1870 to 1940* (U.S. Bureau of the Census, 1943).

for 5 percent of all employed women. By the end of the decade, the number of domestics had fallen to slightly more than 1 million, or less than 3 percent of all female workers.<sup>5</sup> Both a slackened demand for this type of employee and a diminished supply contributed to this drop. For instance, along with the advent of smaller families, continued improvements in household technology eliminated many of the time-consuming, tedious, and difficult tasks associated with running a home. At the same time, increased employment opportunities in other fields, heightened educational attainment (which would provide workers with skills to obtain other types of jobs), and greater availability of public assistance may have hastened the departure of women from this field.<sup>6</sup>

The exodus was more pronounced among black than among white women. While the number of white women dropped significantly from 1970 to 1975 and then plateaued, the number of black women has fallen steadily. By 1979, 45 percent fewer were working in this occupation than in 1970. As the following tabulation shows, in March 1979 very few black women under age 35 worked as domestics:

*Domestic workers (thousands)*

	<i>March 1970</i>	<i>March 1975</i>	<i>March 1979</i>
Total, 16 years and over . . .	1,649	1,217	1,093
White . . . . .	974	730	733
Black . . . . .	633	480	345
Other . . . . .	42	7	15
Total, 16 to 34 years . . . . .	599	477	451
White . . . . .	476	411	417
Black . . . . .	113	64	30
Other . . . . .	10	2	4
Total, 35 years and over . . .	1,050	740	642
White . . . . .	498	319	315
Black . . . . .	520	416	315
Other . . . . .	32	5	12

As a result, the racial composition of this occupational group changed from 38 percent black in 1970 to 32 percent black in 1979. Because the basic demographic characteristics of black and white private household workers differ substantially, the following sections focus separately on the two groups.

**Black women.** Black women employed as domestics in 1979 were older and less educated than black women workers overall. The vast majority worked as cleaners and servants. Many maintained their own families, and their employment provided a major share of their families' support.

In March 1979, more than 3 of 5 black women in private household work were between the ages of 45 and 64 years, and an additional 1 of 5 were over age 65.

**Table 2. Selected characteristics of private household workers, by race, March 1979**

[Numbers in thousands]

Characteristic	Total	White	Black
Total, 16 years old and over . . . . .	1,093	733	345
Employment status:			
Employed full time . . . . .	336	237	94
Employed part time . . . . .	757	495	251
Unemployed . . . . .	50	24	26
Unemployment rate (percent) . . . . .	4.4	3.2	7.1
Age:			
16-24 years . . . . .	309	292	14
25-34 years . . . . .	142	125	16
35-44 years . . . . .	121	65	54
45-64 years . . . . .	369	169	192
65 years and over . . . . .	152	82	69
Median age (in years) . . . . .	42.9	31.0	54.2
Marital status:			
Never married . . . . .	329	270	53
Married, husband present . . . . .	450	310	135
Married, husband absent . . . . .	86	24	60
Widowed . . . . .	157	89	65
Divorced . . . . .	72	40	32
Median years of school completed:			
Total . . . . .	10.9	11.3	9.5
16-44 years . . . . .	11.5	11.6	10.5
45 years and over . . . . .	9.5	10.2	8.8
Median earnings, 1979:			
Hourly earnings of those paid by the hour . . . . .	\$2.44	\$2.13	\$2.68
Usual weekly earnings of full-time wage and salary workers . . . . .	\$89	\$80	\$110

NOTE: Due to rounding, some components may not add to totals.

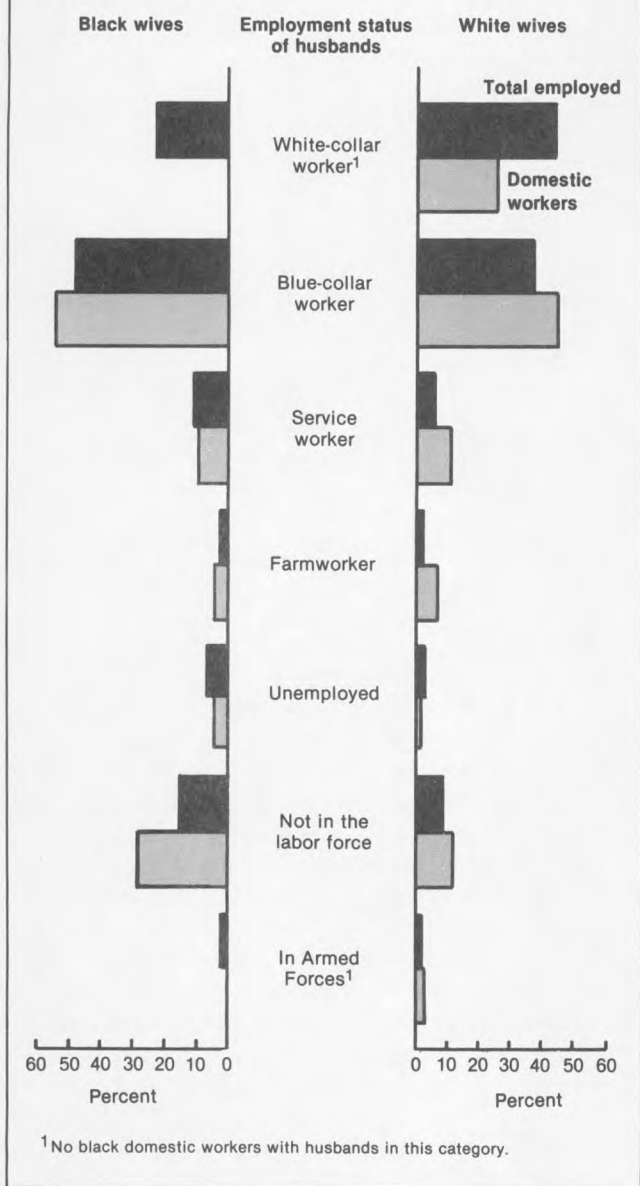
Most had been married at some point in their lives, but only about 40 percent of all black domestics were currently living with their husbands; an additional 45 percent were widowed, divorced, or separated. (See table 2.)

Married black domestics were less likely than black female workers in general to have employed husbands. The husbands of fewer than 7 of 10 domestics were working, compared with 8 of 10 husbands of all black employed women. The domestics' husbands tended to be clustered in blue-collar jobs, about equally dispersed among craft, laborer, and operative (including transport) jobs. They were more apt to be laborers than the husbands of all employed black women. (See chart 1.)

Many black women may have stayed in private household work because they are educationally disadvantaged. As a group, black domestics averaged 9.5 years of school in March 1979, with those over age 45 having completed less than 9 years. The median for all black female workers was 12.4 years. Thus, without the schooling or training to meet the requirements of other jobs in today's labor market, many women may be unable to leave household work.

Like most domestic workers, black household workers typically work part time. In March 1979, 7 of 10 reported that they were employed fewer than 35 hours per week. The intermittent nature of the work and the advanced age of many of the women in this group obviously contribute to the high proportion of part-time em-

**Chart 1. Employment status of husbands of domestic workers and other employed wives, March 1979**



eligible for coverage by minimum wage provisions of the Fair Labor Standards Act since 1974,<sup>7</sup> a large amount of noncompliance with the law is apparent. For instance, in 1974, covered black household employees averaged slightly over \$2 per hour. However, 45 percent of those eligible for the minimum wage earned less than the \$1.90 hourly rate prescribed by law.<sup>8</sup> Reasons for this apparent noncompliance include: ignorance of the law among some employers and employees; a willingness on the part of some employees to work for less than the legally required minimum in order to have a job; and errors by workers in reporting their wages and perquisites.<sup>9</sup>

As the 1970's closed, the earnings of private household workers remained far below average. In 1979, median earnings for all black women paid by the hour were \$3.60; in contrast, 7 of every 10 black domestics earned the minimum wage of \$2.90 or less. Black private household workers who were full-time wage and salary workers—slightly more than one-quarter of the total—earned \$110 weekly, about one-third less than the median for all full-time black female wage and salary workers.

Despite perquisites—such as lunches and transportation—that some private household workers receive, despite payments in kind, and despite the under-reporting or nonreporting of income by some,<sup>10</sup> many domestics are living at the subsistence level. Almost 50 percent of the black women who maintained families and who reported private household work as the occupation at which they worked the longest were below the poverty level in 1978 (the latest year for which poverty data are available). The same was true for half of the black women who did not have any immediate family responsibilities.<sup>11</sup>

*White women.* The situation for white private household workers was entirely different. As shown in the following tabulation, white women were heavily concentrated in childcare work in 1979:

	Annual averages		
	Total	White	Black and other
Total (percent) . . . . .	100.0	100.00	100.00
Childcare workers . . . . .	43.7	60.2	10.5
Cooks . . . . .	2.4	1.5	4.0
Housekeepers . . . . .	8.9	7.6	11.6
Launderers . . . . .	.6	.4	.9
Cleaners and servants . . . . .	44.4	30.3	73.0

A large component of these childcare workers were youthful babysitters whose social and demographic characteristics were overwhelmingly represented in the composite portrait of white household workers.

Fitting the babysitter pattern, nearly one-third of all white women working in this occupation in March 1979

ployees. Only about 1 of 6 black domestics reported that she worked all year, full time in 1978.

About 25 percent of all black private household workers maintained their own families, and an additional 30 percent were married to men who were out of the labor force. (Of course, because black domestics are older, many of their husbands may be retired.) As a result, these women may be providing a great share of their families' support.

The earnings of private household workers are extremely low by any measure. Although most have been

were never married and under age 25. Because more than half had to balance employment with school attendance, most worked part time, earning only a few hundred dollars in 1978.

The demographic characteristics of the remaining white private household workers were significantly different from those of their black counterparts. On average, they were younger, better educated, and less likely to maintain their own families. In fact, only 1 of 10 white domestics maintained her own family.

About 40 percent were between 25 and 44 years of age. Overall, they had completed an average of 11.9 years of school. A larger proportion—59 percent—were married. Their husbands were employed to a greater degree than were the black husbands, and white husbands were far less likely to be out of the labor force. Blue-collar work was, again, the most prevalent type of employment of the white husbands, although not to the extent of the black husbands. The spouses of white private household workers were much more likely than the blacks to be white-collar workers. However, their proportion was far below that for husbands of all white female workers. (See chart 1.)

In terms of employment status, most of the white domestics were part-time workers; fewer than 10 percent worked all year full time. Median hourly earnings in 1979 of those paid by the hour were about \$2.15, with 4 of 5 earning less than \$2.90. It should be noted, however, that this median, which was lower than that of their black counterparts, was greatly influenced by the earnings of large numbers of youthful babysitters who were not subject to the minimum wage. White domestics who were full-time wage and salary workers—about 30 percent of all white private household workers—earned

\$80 weekly, more than \$100 below the average for all white female full-time wage and salary workers.

### The future: will demand increase?

The nature of household work may change in the years to come. As more commercial enterprises enter the field, domestic workers may find themselves employees of cleaning businesses. As such, they would be subject to the rights and privileges of other workers, such as more rigorous compliance with minimum wage and social security requirements. In addition, the 1980's may witness an upsurge in the demand for private household workers. As greater numbers of women are employed outside their homes, they may seek to substitute paid labor—either from individuals or from businesses—for the work they previously performed in their own homes.

Moreover, efforts have recently been undertaken to upgrade the status of private household workers. Some of this group's needs were included in *The Spirit of Houston*, the official report in 1978 of the National Commission on the Observance of International Women's Year.<sup>12</sup> Also, the National Committee on Household Employment is trying to organize domestic workers throughout the country.<sup>13</sup> This organization, among others, is striving to change the image of domestic workers in both the employee's and the employer's view. By making both parties aware of their legal rights and responsibilities and by emphasizing that household work can be a career with business and professional aspects, the committee hopes to aid private household workers gain greater returns to their labor market experiences. □

### — FOOTNOTES —

<sup>1</sup> In this report, the terms "private household work" and "domestic service work" are synonymous.

<sup>2</sup> Historical information in this section is based, in part, on David M. Katzman, *Seven Days a Week* (New York, Oxford University Press, 1978).

<sup>3</sup> C. Helene Barker, *Wanted a Young Woman to Do Housework* (New York, Moffat, Yard and Company, 1915), pp. 25–26. Some of the conditions which made domestic service unpleasant were the necessity of wearing a uniform, the extremely long hours, the isolation, and derision workers suffered. For more information see Katzman, *Seven Days*, especially pp. 8–43 and 233–34.

<sup>4</sup> *Family Status of Breadwinning Women in Four Selected Cities* (U.S. Department of Labor, Women's Bureau, 1926), p. 14.

<sup>5</sup> Labor force data in this section are based primarily on information obtained from the Current Population Survey, a survey of the labor force conducted for the Bureau of Labor Statistics by the Bureau of the Census. Estimates based on sample numbers such as those shown in the tables may vary considerably from results obtained by a complete count in cases where the numbers shown are small. Therefore, differences between small numbers or percents based on them may not be significant. For more information on sampling error, see

*Employment and Earnings*, published monthly by the Bureau of Labor Statistics.

<sup>6</sup> *Domestic Service Workers* (U.S. Department of Labor, Employment Standards Administration, 1979), p. 13. See this publication for more complete information about minimum wage and overtime coverage of private household workers.

<sup>7</sup> *Domestic Service*, p. 9.

<sup>8</sup> *Ibid.*, p. A–27.

<sup>9</sup> *Ibid.*, p. 19.

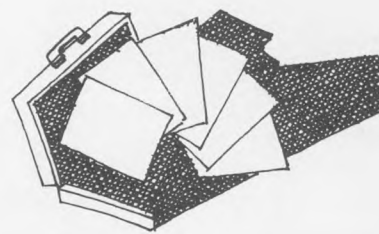
<sup>10</sup> *Domestic Workers Covered Under OASDHI, 1976*, Research and Statistics Note 1 (U.S. Department of Health and Human Services, Social Security Administration, 1980).

<sup>11</sup> *Money Income and Poverty Status of Families and Persons in the United States: 1978*, *Current Population Reports*, Series P–60, No. 124 (Bureau of the Census, 1980), p. 1.

<sup>12</sup> National Commission on the Observance of International Women's Year, *The Spirit of Houston* (Washington, U.S. Government Printing Office, 1978), p. 48.

<sup>13</sup> For more information, contact the National Committee on Household Employment, 500 East 62nd Street, New York, N.Y. 10021.

# Conference Papers



The following excerpts are adapted from papers presented at the Thirty-Second Annual Meeting of the Industrial Relations Research Association, December 28–30, 1979 in Atlanta, Ga.

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

## Vinyl chloride protection: less costly than predicted

CHARLES R. PERRY

The battle over the permanent Federal standard for permissible levels of worker exposure to vinyl chloride was beset with predictions of dire economic consequences which have become commonplace in the standard-setting process. Such consequences clearly have not come to pass, a fact which prompted some to conclude that the industry "cried wolf."<sup>1</sup> That conclusion, strictly speaking, is not justified. But, justified or unjustified, it has had the effect of tempering the industry response to other proposed regulations.

The permanent standard initially proposed by the Occupational Safety and Health Administration (OSHA) called for a level of "no detectable" exposure to the cancer agent. The industry responded that such a standard "is not technologically feasible and, if adopted, would shut down the industry."<sup>2</sup> Interestingly, this claim was supported by the conclusion of a feasibility study, commissioned by OSHA.<sup>3</sup> The consequences of a possible industry shutdown were detailed in a separate study which indicated that \$65 to \$90 billion in Gross National Product and 1.7 to 2.2 million jobs were de-

pendent on the production of polyvinyl chloride (PVC) resins.<sup>4</sup>

The industry argued for a standard which would set a time-weighted exposure limit of 10 parts per million (PPM) for polyvinyl chloride resin plants and 5 ppm for vinyl chloride monomer (VCM) plants,<sup>5</sup> based on feasibility considerations. Organized labor endorsed the "no detectable level" standard and disputed the infeasibility of such a standard. The results of its own feasibility study forced OSHA to withdraw from the no detectable level standard and to adopt in its place a 1 ppm standard. The industry challenged both the necessity for and feasibility of this stringent limit in the courts with a notable lack of success, particularly because the court of appeals specifically ruled that:

the secretary is not restricted to the status quo. He may raise standards which require improvements in existing technologies or which require the development of new technology. . . .<sup>6</sup>

The actual economic consequences of this technology-forcing standard for the viability of PVC plants and the availability of jobs in those plants were remarkably modest. A few older PVC plants were shut down, in whole or substantial part, because of the projected cost of bringing those facilities into compliance with the requirements of the standard. These shutdowns resulted in the loss of about 325 million pounds of production capacity and 375 jobs—approximately 5 percent of the industry total. Much of the credit for the modesty of these adverse effects now is attributed by the industry to the reasonableness of the standard itself, as is evident in the following confidential statement of one company representative:

The OSHA-VCM program was, in the end, a real success story for both OSHA and the VCM-PVC industry. By fighting the "absolute zero" concept originally proposed, industry achieved a more practical 1 ppm standard that allowed it to continue to operate and grow. And, apparently the standard has protected the workers . . . so at least in this case we have a government regulation that has been practical and beneficial to all concerned.

The vinyl chloride standard may not have been catastrophic for the industry, but it was expensive. The first public estimate of the cost of compliance with the 1 ppm standard indicated that the industry would have to invest \$200 million (excluding development costs) in im-

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mediate process improvements to satisfy the requirements of the standard.<sup>7</sup> The VCM-PVC industry actually invested about \$130 million in such process improvements to bring existing production facilities into compliance with the standard. More than 90 percent of this total was accounted for by PVC plants, which employ only about 75 percent of the workers in the industry.

The apparent \$70 million cost "saving" recorded by the industry is an attractive focus of attention but in no way offsets the \$130 million actually invested in compliance with the standard. It is difficult to identify the sources of the saving without knowledge of the basis of the original \$200 million cost estimate, but three possibilities deserve note. First, part of the savings may be attributable to the decision to close rather than modify some older PVC plants. Assuming that these plants had the most acute and expensive compliance problems, they may well have accounted for as much as 10 percent of estimated compliance cost, although they represented only 5 percent of PVC capacity, and for as much as \$20 million of the \$70 million saving. Second, part of the savings may have stemmed from miscalculation of the significance of the relative cost advantage of VCM facilities in complying with the standard. For example, there was an almost \$4,000 per worker difference between average compliance cost for PVC and for VCM-PVC plants which, if not accounted for in industry cost projections, would have added another \$25 million to those estimates. Finally, the industry was able to find more efficient means to achieve compliance than were foreseen at the time the standard was adopted. The largest producer in the industry reported it had been able to reduce its projected \$42 million compliance cost by 10 to 15 percent through technological developments.<sup>8</sup> If other producers were able to realize similar economies, the total savings for the industry would have been another \$25 million.

Compliance with the vinyl chloride standard entailed incremental operating as well as capital costs. Data on incremental operating costs are limited, but the data which are available suggest that compliance probably cost the industry close to \$10 million per year or \$100 million in present value terms, assuming a 10 percent interest rate and infinite time horizon. Approximately 70 percent of this incremental operating cost was attributable to added activity and staff in two areas—exposure monitoring and equipment maintenance.

The incremental operating costs associated with compliance are noteworthy for three reasons. First, they were not included in public estimates of compliance costs. Second, they were sizable both in absolute amount and in relation to the capital costs of compliance. Finally, they appear to have been primarily a product of exposure control, *per se*, rather than the more peripheral requirements of the standard such as

recordkeeping or medical surveillance.

The incremental capital and operating costs associated with compliance constitute the most visible dimension of the economic impact of regulation. A much more subtle and surprising economic impact of the vinyl chloride standard was a significant reduction in effective production capacity and output per man-hour in the industry.

Compliance with the exposure limits set by the standard required substantial changes in work procedures in the industry. These changes resulted in less efficient utilization of existing equipment and manpower, which lowered effective capacity by approximately 15 percent. The actual loss of product and productivity immediately after the standard became effective was slightly less than 15 percent because there was some temporary excess capacity in the industry. Over the longer run, however, the loss of product and productivity in then existing facilities has approached the full 15 percent for two reasons. First, industry sales generally have been capacity limited and second, little progress has been made in eliminating the need for modified work procedures which limit capacity.

The incremental capital and operating costs for compliance with the vinyl chloride standard represent the equivalent of a \$23-million increase in annual production cost. That \$23 million, in turn, is the equivalent of a \$3,000 per year or \$1.50 per hour wage premium for the approximately 7,000 workers employed in the VCM-PVC industry. Assuming average hourly compensation of \$10 for those workers, the OSHA vinyl chloride standard mandated a 15 percent increase in effective wage rate in the industry. That 15 percent increase coupled with a 15 percent drop in productivity suggests that compliance resulted in a 35-percent increase in unit labor costs. Labor costs, however, are only a small percentage of total costs in the VCM-PVC industry and probably account for no more than 10 percent of total operating costs. Thus, OSHA regulation added no more than 3.5 percent to the cost of PVC resins—about \$.005 per pound. Assuming production from then existing facilities of 4.5 to 4.8 million pounds, the cost to consumers would be about \$23 million per year. □

—FOOTNOTES—

<sup>1</sup> Steven Rattner, "Did Industry Cry Wolf? Polyvinyl Chloride Health Rules Can Be Met," *The New York Times*, Dec. 28, 1975, p. C-5.

<sup>2</sup> "Post-Hearing Memorandum of the Society of the Plastics Industry, Inc.—Proposed Findings of Fact and Conclusions Supported by the Record," (Memorandum presented to the U.S. Department of Labor, Occupational Safety and Health Administration, in the matter of proposed permanent standard for occupational exposure to vinyl chloride, Washington, D.C., Aug. 22, 1974), p. 5.

<sup>3</sup> "Showdown on Vinyl Plant Rule Presages Shutdowns," *Chemical Week*, Sept. 25, 1974, p. 15.

<sup>4</sup> Arthur D. Little, Inc., *United States Polyvinyl Chloride Industry Impact Analysis* (Cambridge, Mass: Arthur D. Little, Inc., 1974), p. 5.

<sup>5</sup> "Showdown on Vinyl," p. 16.

<sup>6</sup> Brief for SPI at 39, *Society of the Plastics Industry, Inc. v. Occupational Safety and Health Administration*, 509 F.2d 1309 (2d Cir. 1975).

<sup>7</sup> "PVC Plants are Ready to Pass First Test," *Chemical Week*, May 7, 1975, p. 49.

<sup>8</sup> "Goodrich Cuts Cost of Meeting VCM Limits," *Chemical Week*, Dec. 10, 1975, p. 59.

## A view of the costs and benefits of the job safety and health law

RICHARD E. GINNOLD

A major issue in criticism of the Occupational Safety and Health Administration's enforcement of the Occupational Safety and Health Act has been the alleged onerous increases in costs of production. Industry has raised the issue in standards hearings, in contesting penalties, and politically. Not only does OSHA impose high costs, say critics, but the law provides few or no benefits. Opponents of this reasoning have argued that a select minority of workers bears risks so that the general public can consume. To balance worker protection against costs to the consuming public is immoral and inequitable.<sup>1</sup>

While some courts have required OSHA to consider economic feasibility, a recent D.C. Circuit Court decision on the cotton dust standard clearly states that economic feasibility tests were purposefully left out of the law, in contrast to other environmental laws. The court says:<sup>2</sup>

In the Clean Air Act, for example, Congress required the Environmental Protection Agency (EPA) to perform a "cost-benefit analysis" . . . Some Congressional acts require a showing of 'unreasonable risk' prior to regulation. The legislative histories of these acts have led the courts to construe this provision to require regulatory agencies to balance costs and benefits of proposed action. In the OSH Act, in contrast, Congress itself struck the balance between costs and benefits in the mandate to the agency. Section 6(b)(5) unequivocally mandates OSHA to:

'set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity.'

In contrast to the acts for which Congress contemplated a cost-benefit requirement, the legislative history of the Occu-

pational Safety and Health Act contains no reference to this kind of economic analysis.

This view contrasts with the 5th Circuit view in the benzene cases now before the Supreme Court. If the D.C. Circuit view prevails, it will greatly assist OSHA in sustaining other urgent but costly health standards.

### High costs imposed?

Regardless of the legal position, the cost issue is of practical importance. How do the costs impact on the economy or individual employers? What are the corresponding benefits? Concerning overall costs, it appears they have been greatly exaggerated. Brookings Institution economist Edward Denison did a special study of the impact of environmental costs on growth.<sup>3</sup> He found that all environmental impacts from 1967 had lowered productivity 1.8 percent by 1975.

However, only one-quarter of this, or .42 percent, was due to health and safety regulations. Furthermore, .09 percent was due to auto safety, .24 percent was due to mine safety, and only .09 percent to one-tenth of one percent of total productivity loss was due to OSHA. As Denison points out, this was a measure of gross cost alone, and he did not attempt to measure the health benefits resulting from the costs measured.

Another recent source is a study by the Business Roundtable<sup>4</sup> which measured the incremental costs of environmental regulation by 48 companies making up over one-quarter of the total manufacturing sector (among others) with over \$25.8 billion in capital expenditures and \$16.6 billion in corporate after-tax profits. These companies reported that the added cost of business due to six Federal regulatory agencies in 1977 was \$2.7 billion. The costs of EPA compliance made up 70 percent of the total, which the industry estimates thus far have not caused significant economic problems. Also, as Nicholas Ashford and others have argued,<sup>5</sup> frequently OSHA standards speed up the normal replacement cycles and cause the industry to install a possibly more productive and competitive technology than it was using previously. Costs related to job safety and health were \$184 million, or 7 percent of the total. The companies also reported that most of this expense was incurred in earlier years. The McGraw-Hill survey of business safety and health expenditures shows planned spending of \$4.9 billion in 1979, as compared with \$2.5 billion in 1972. This is a large rise, but not too much more than the rise in producer prices.

There still is the question of long-term economic impacts, effects on worker productivity and employment effects on industries which have refitted or changed production methods to comply with job safety and health requirements. It is important to have a better idea of these costs. Also, given the standard, how long does it

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take to get it fully enforced in all firms? More detailed impact studies should be done for individual firms applying new standards or complying with a controversial standard, for example, noise control and ventilation.

The impression that compliance costs have not been onerous is also confirmed by a number of cases cited by Basil Whiting, OSHA deputy assistant secretary, where the costs of industry compliance with new health standards—vinyl chloride, acrylonitrile, beryllium—turn out to be far lower than initial projections indicated.<sup>6</sup> It should be mentioned that in most of these cases there has not been a thorough followup study, after the standard has taken full effect, looking at both economic and health impacts. These studies are obviously needed.

Because of the uncertain knowledge of firms faced with expensive compliance, there should also be an OSHA hotline and clearinghouse of information on technical and economic feasibility. Case studies of successful compliance efforts could be obtained from Federal and State compliance officers, State consultants and the National Institute for Occupational Safety and Health. This would greatly assist OSHA officers in informal conferences with employers and in handling contested cases. It could also be used by employers and unions dealing with specific compliance problems.

If we ask workers in hazardous jobs about the impact of the Occupational Safety and Health Act and its benefits, there will be no question. The improvement in ventilation, noise reduction, machine guarding, and management's willingness to correct hazards is much greater than before OSHA. Workers can get information on toxic substances for the first time. Yet this anecdotal evidence needs more concrete supporting data. John Mendeloff calculated a possible benefit of \$380 million from injury reduction, projected nationally.<sup>7</sup> A recent report estimated the law's injury and illness reduction benefits at over \$5 billion, exceeding current projected industry costs for safety and health.<sup>8</sup>

However, we can't even quantify the impact in most areas, let alone attach benefits to it. To go further in measuring benefits, it is necessary to have much more microresearch into injury rate data and case studies of particular firms, industries, and standards to build the base for more global estimates.

### Maximizing OSHA's impact

The foregoing discussion indicates that the law has not had the exaggerated cost impact its critics have charged and on balance has had some measurable positive impacts. Yet, it is important and possible for OSHA to produce more tangible impacts on the injury and illness problem. There are several areas of needed action.

Injury and fatality data are being used widely by OSHA's critics to show negative effects. OSHA and the

Bureau of Labor Statistics should quickly investigate the anomalies mentioned earlier and also determine to what extent outside factors like workers' compensation improvements are causing the stability or rise in injury rates and how to obtain a rate which more truly reflects changes in job hazards.

As nationwide surveys show,<sup>9</sup> only 20 to 25 percent of all workers are exposed to serious safety and health hazards and just 16 percent of the workers surveyed had experienced an injury or illness in the past 3 years. Only 7 percent felt their injury or illness was a serious problem. The same concentration is seen on the employer side. Approximately 125,000 employers with more than 20 employees have above average injury rates. In the State of Washington, 10,000 employers have almost all the injuries. Even allowing for some statistical turnover of employers from year to year, it is clear that safety and health risks are a priority issue for a minority of employees and employers. OSHA should be directing its entire focus at this group (granted the need to respond to complaints from workplaces missed by the general rule).

Once high hazard employers are identified, their injury and illness experience should be analyzed and related to needed control measures. Where codes are lacking, general duty guidelines should be made available. The targeting emphasis should not stop with inspections, but should be incorporated into the focus of OSHA-funded State consultation programs and "New Directions" education programs. OSHA and its related agencies should all be thinking in terms of a specific injury reduction target—say, 10 percent per year—and making that the focus of activity. There would be some conflicts between this goal and some natural increase in compensation claims from increased awareness and past exposure, but this could be kept separate.

Many of the fastest growing injury causes are not covered by standards, such as back injuries and tendonitis. With a decline in physical conditioning and more women in the labor force, many tools, machines, work procedures, and lifting customs are increasingly hazardous. OSHA now has no standards in these areas, even though some OSHA offices have been citing job design problems in cases where large numbers of "carpal tunnel syndrome" (a wrist nerve deterioration) are seen. OSHA should establish general duty guidelines and practical control measures for citing the most frequent physical stress problems, for example, excessive lifting, job designs which require twisting under load, improperly designed tools and chairs, and standing for long periods on hard floor surfaces.

There are many other issues which could be discussed. OSHA needs to expand the use of general duty citations to overcome the delay in standard-setting. Labor Department lawyers and Occupational Safety and

Health Review Commission judges see the use of general duty as a litigation problem, but 90 percent of OSHA citations are settled in the field and a strongly based general duty clause is worth as much as a standard. □

—FOOTNOTES—

<sup>1</sup> Nicholas Ashford, *Crisis in the Workplace: Occupational Disease and Injury* (MIT Press, Cambridge, 1976), pp. 359–60.

<sup>2</sup> *Marshall v. AFL-CIO, Marshall v. Cotton Warehouse Association, et al.*, U.S. Court of Appeals, D.C. Circuit (Oct. 24, 1979), p. 55.

<sup>3</sup> Edward Denison, "Effects of Selected Changes in the Institutional and Human Environment Upon Output Per Unit of Input," *Survey of Current Business* (January 1978), pp. 21–44.

<sup>4</sup> The Business Roundtable, *Cost of Governmental Regulation Study* (March 1979).

<sup>5</sup> Ashford, *Crisis in the Workplace*.

<sup>6</sup> Basil Whiting, Jr., "Regulatory Reform and OSHA: Fads and Realities," *Labor Law Journal* (August 1979), p. 514.

<sup>7</sup> John Mendeloff, *Regulating Safety* (MIT Press, Cambridge, 1979).

<sup>8</sup> Mark Green and Norman Waitzman, *Business War on the Law* (Ralph Nader, 1979), p. 81.

<sup>9</sup> R. Quinn and G. Staines, *The 1977 Quality of Employment Survey* (Ann Arbor, Survey Research Center, University of Michigan).

## Rise of pensions and social security created alternating goals for unions

BRUNO STEIN

Private pensions and social security retirement benefits easily accommodated each other from the late 1940's until the mid-1960's. Afterwards, the rapid growth in social security benefits altered the role of pension retirement systems and cast doubt upon their future, much to the distress of segments of the pension community.

The important breakthrough on the pension scene occurred in the late 1940's at the bargaining table, when unions began to demand pensions. At the time, social security retirement benefits averaged \$29 per month and replaced about 20 percent of the median wage as it was in the year prior to retirement.<sup>1</sup> In view of these low benefits, unions had found an important bargaining issue. But income taxes were now a factor. Before World War II, most workers were below the income tax threshold, but afterward the tax became a wedge between a worker's gross and net incomes; pensions act as a tax shelter. Initially, the tax advantage to workers may have been less obvious in pensions than in other fringe benefits. However, the advantages increased with

age, income, and inflation.<sup>2</sup>

Pension coverage grew sharply in the union sector, and spilled over into the nonunion sector. In 1950, 9.8 million workers had coverage; 10 years later, 18.7 million. After that, growth stemmed more from the increasing number of workers in businesses with existing plans than from the inauguration of new plans. By 1975, coverage had reached 30.3 million workers.<sup>3</sup>

Although the low level of social security benefits may have caused the rise of pensions, those benefits began a dramatic upward march in 1970. Between 1970 and 1977, nominal benefits increased by 105 percent. The replacement rate for a median wage earner retiring at age 65 rose from 29.6 percent in 1969 to 44.7 percent in 1977. With a dependent spouse age 62, the replacement rate reached 62 percent.<sup>4</sup> Those who also received pensions found that the social security benefit often was the greater of the two. Moreover, social security benefits were permanently tied to the Consumer Price Index in 1975, a feature that was virtually absent in private pension plans.

Part of the increase in social security benefits was intentional, for example, the *ad hoc* increases before 1975 and the indexing of benefits. However, part of the increase was the unintended byproduct of a faulty benefit computation formula, enacted in 1972 and effective starting in 1975. This—the famous decoupling problem—drove future benefits upward faster than expected, and overcompensated for inflation.<sup>5</sup> The problem was—one hopes—corrected by the 1977 amendments.

Understandably, the pension community became nervous. As early as 1970, Robert J. Meyers sounded the warning that "expansionists" in the Social Security Administration sought to change social security from a floor of protection to a virtually complete replacement of preretirement income.<sup>6</sup> Pension planners indeed had cause to worry. If social security benefits continued to increase, they might crowd out the need for pensions. It is not surprising, therefore, that, by the mid-1970's, the labor movement no longer placed priority on social security benefit increases, leaving some room for pension improvements at the bargaining table.<sup>7</sup>

The 1977 amendments to the Social Security Act have ended the rise of benefits as measured by the replacement rate. As a result, social security is now less likely to crowd out pensions, and the latter will retain their importance as income maintenance for future retired workers. □

—FOOTNOTES—

<sup>1</sup> Alicia H. Munnell, "The Future of the U.S. Pension System," in Colin D. Campbell, ed., *Financing Social Security* (Washington, American Enterprise Institute, 1979), p. 256.

<sup>2</sup> Donald J. Cymrot, "The Effect of Tax Incentives on the Rate of Return for Private Pensions," January 1978, unpublished.

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<sup>3</sup> Alfred M. Skolnick, "Private Pension Plans, 1950-1974," *Social Security Bulletin*, June 1976, p. 4; and Martha Remy Yohalem, "Employee Benefit Plans, 1975," *Social Security Bulletin*, November 1977, pp. 20-26.

<sup>4</sup> Munnell, "The Future of the U.S. Pension System," pp. 255-56.

<sup>5</sup> An excellent treatment of this complicated issue is found in Robert S. Kaplan, *Indexing Social Security: An Analysis of the Issues* (Washington, American Enterprise Institute, 1977). For a broader view of the issues, see the papers, comments, and discussion in Campbell, *Financing Social Security*, pp. 91-169.

<sup>6</sup> Robert J. Myers, "The Future of Social Security: Is It in Conflict with Private Pension Plans?" *Pension and Welfare News*, January 1970, pp. 38-48. For a more complete discussion of Myers' position, see Martha Derthick, *Policymaking for Social Security* (Washington, The Brookings Institution, 1979), pp. 23-27, 31, 177-79.

<sup>7</sup> Bert Seidman, "Concepts of Balance Between Social Security (OASDI) and Private Pension Benefits," in Dan M. McGill, ed., *Social Security and Private Pension Plans: Competitive or Complementary?* (Homewood, Ill., Richard D. Irwin, Inc., 1977), p. 86.

## New Spanish legislation marks turning point in labor relations

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Organized labor in Spain partakes of the highly political character that distinguishes trade unionism in the Latin countries of Western Europe. But the Spanish political climate in recent years has taken on inordinate dimensions; the initial years of the democratic transition have been a time of acute rivalries as contending political forces fiercely compete for power and electoral influence. The unexpectedly large support received by the Socialists in the June 1977 parliamentary election prompted the center-right government of Prime Minister Adolfo Suarez to enter a tacit collaboration with the Communists, for the purpose of containing the Socialist resurgence, a development that inevitably influenced the formulation of government labor policies.

The Suarez government has regarded the unions almost exclusively in political terms because the two leading labor confederations are controlled by Socialists and Communists. In its estimation, therefore, other than for purposes of political manipulation, there was little incentive to promote basic reforms in labor legislation. There was, on the other hand, good reason to maintain the unions in limbo, in a weakened state to aid the ruling Union of the Democratic Center Party (UCD) in its effort to establish a third major labor center that would serve as the government's labor adjunct.

Nor were the actions of the Socialist and Communist Parties conducive to effective trade union development. Engrossed in a crucial contest for political advantage,

their respective trade union arms were constrained to concern themselves at least as much, if not more with political mobilization and tactics than with essential trade union tasks. In such an environment, institutional needs and the credibility of the unions necessarily suffered.

### Turning point

The outcome of the March 1, 1979, parliamentary election marked a perceptible change. The election results reflected a decisive turnback of a Socialist challenge to the continued incumbency of the Suarez government, and a strengthened parliamentary standing for the victorious UCD. Accrued political strength and the reasonable assurance of remaining in power until 1983 persuaded the government in recent months to abandon its alliance with the Communist Party (PCE). Moreover, since the Socialist Workers Party (PSOE) no longer represents a threat to tenure, to a greater extent than before, the country's principal parties have found it mutually beneficial to establish working compromises on pending legislation. An example is the new Statute of the Workers, passed by the Congress of Deputies on December 20, 1979.

Most likely it was employer influence that was instrumental in the government's decision to embark on a new approach both to industrial relations and to the Communists. The Spanish Confederation of Employer Organizations (CEOE), which serves as the principal spokesman for employer interests, is endeavoring to reduce the highly interventionist government role inherited from the Franco regime, and to carve out for itself a larger role in the setting of economic and labor policies.

In July 1979, before the inauguration of parliamentary discussions on the proposed labor statute, the CEOE and the General Union of Workers (UGT) (which is allied with the Socialist Party) entered into a pact that set forth their joint support for a number of proposed provisions of the labor code. This unprecedented development set the stage for the subsequent unveiling of the new policy.

The pact marked a major departure not only for the future configuration of labor-management relations but also as a portent of the change in attitude toward the Communists. The principal thrust of PCE strategy is designed to increase the party's own acceptability. The Workers Commissions, as a consequence, have insisted that the setting of national economic and labor policies should be taken up in formal discussions among government, employers, unions, and the political parties. The UGT argued that such matters require labor-management consultations to lend them a more functional character, and to establish the practice of high-level labor-management consultations. When the CEOE sided

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with UGT on the issue, the Workers Commissions withdrew from the talks.

The UGT also emerged the gainer in a dispute with the Workers Commissions over the roles to be accorded respectively to the unions and the factory works councils. The Workers Commissions have consistently sought to confer wide ranging powers on the works councils, including the right to negotiate on wage and other economic issues, in order to exploit both its appreciable superiority in experienced cadres and UGT's deficiency in this area. The UGT, on the other hand, has argued in favor of a larger role for the unions at the plant level and has proposed a delineation of functions similar to what prevails in most West European countries: that works councils be empowered to represent workers with respect to most nonwage matters, while unions bargain for wages, hours, and related issues. Both the pact with CEOE and the provisions of the new statute favor the UGT approach.

### **Concern about Communism**

An underlying factor in this rapprochement has been mounting concern in employer and center-right political circles that the tacit alliance between the Suarez government and the Communists, if it were to continue, might eventually lead to Communist labor hegemony, especially since the government's effort to create its own trade union arm has ended in total failure. In the moderates' and rightists' view, therefore, a new policy was required, one that would reduce the PCE's disproportionate influence in the country's political life. As a result, the CEOE-UGT pact, the adoption of a labor statute that incorporated the UGT-CEOE proposals, and the government's change of attitude toward the Communists all heralded an important shift in labor policy and in the country's political alignments.

Such a shift required the government to improve relations with the PSOE and UGT. The latter, who regard the PCE and Workers Commissions more as rivals than as

appropriate collaborators, view the government's current attempt to politically isolate its erstwhile allies as excessive and potentially counter-productive, but are, nevertheless, disposed to enter working agreements with the Suarez government on specific issues. The Communist Party and the leadership of the Workers Commissions understandably have denounced the new statute as retrograde and prejudicial to the workers' interests. While the new law may be somewhat partial to employer interests it is, nonetheless, constructive in a number of important aspects. It holds up fairly well when compared with similar legislation in other West European countries. Further, despite the acute political controversy accompanying the passage of the Statute of the Workers, the logjam preventing the establishment of a coherent post-Franco labor relations structure has been breached at long last.

Viewed in broader context, the democratic evolution process now seems to have attained sufficient stability to render possible the inauguration of a similar evolution in labor-management relations as well. The establishment of "rules of the game" signifies that a gradual institutionalization of the collective bargaining process and role definitions of the protagonists can now proceed along structured lines. For the unions that have fallen on hard times, a strengthening of their role in the new collective bargaining system and in the formulation of national economic policies holds the promise of eventually providing them with an institutional capacity. This has thus far eluded them, as has the gradual emergence of a specific trade union voice in the country's economic and social life. Such an evolution, should it come to pass, could serve to liberate the unions from their presently excessive dependence on the political parties. Throughout the initial years of Spain's democratic transition the trade union-party nexus has tended to function as a largely unilateral transmission belt rather than as a mutually beneficial channel between allied, but not always congruent, interests. □

# Family Budgets



## Rise in autumn 1979 family budgets marked by transportation and taxes

Reflecting large increases in transportation and medical costs, and personal income taxes, the three hypothetical budgets for an urban family of four in autumn 1979 averaged \$12,585 a year at the lower level, \$20,517 at the intermediate level, and \$30,317 at the higher level.<sup>1</sup> (See table 1.) From autumn 1978 to autumn 1979, the lower budget rose 9.0 percent, the intermediate, 10.2 percent, and the higher, 10.6 percent. (See table 2.)

**Consumption costs.** Consumption costs rose by approximately 9 percent in the lower budget and 10 percent in the intermediate and higher budgets between autumn 1978 and autumn 1979. The largest increases in consumption costs for all three budgets were in transportation and medical care, and in homeowner costs for the intermediate and higher budgets (See table 3.)

The large increases in food costs in the previous year, approximately 12 percent for the lower level and 13 percent for the intermediate and higher level budgets, were replaced by lesser increases of 9.4 percent for the lower and intermediate budgets and 9.5 percent for the higher budget.

**Tax changes.** The budgets include Federal, State, and local tax payments. Changes in Federal Laws provided

**Table 1. Annual budgets for a 4-person urban family, at 3 levels of living, autumn 1979**

Component	Level		
	Lower	Intermediate	High
Total budget .....	\$12,585	\$20,517	\$30,317
Total family consumption .....	10,234	15,353	21,069
Food .....	3,911	5,044	6,360
Housing .....	2,409	4,594	6,971
Transportation .....	1,004	1,851	2,411
Clothing .....	866	1,235	1,804
Personal care .....	323	433	613
Medical care .....	1,171	1,176	1,227
Other family consumption .....	550	1,021	1,684
Other items .....	539	877	1,478
Social security and disability .....	781	1,256	1,413
Personal income taxes .....	1,032	3,031	6,357

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

**Table 2. Change in 4-person family budgets, autumn 1978 to autumn 1979**

[In percent]

Component	Level		
	Lower	Intermediate	Higher
Total consumption less shelter .....	9.1	9.3	9.2
Total consumption .....	9.0	9.7	9.6
Food .....	9.4	9.4	9.5
Housing .....	7.9	9.9	9.9
Shelter <sup>1</sup> .....	8.2	10.8	10.9
Renter costs .....	8.2	8.1	7.9
Homeowner costs <sup>2</sup> .....	...	11.3	11.3
Housefurnishings and operations .....	7.0	6.8	6.9
Transportation .....	17.3	17.7	18.0
Clothing .....	2.2	2.2	2.0
Personal care .....	7.3	7.4	7.5
Medical care .....	10.0	9.9	9.9
Other family consumption .....	6.8	6.8	6.7
Other items .....	7.4	8.3	8.3
Social security .....	8.6	17.1	29.5
Personal income taxes .....	10.4	10.7	10.8
Total budget .....	9.0	10.2	10.6

<sup>1</sup> Includes only rental housing in the lower budget.

<sup>2</sup> On the assumption that the home was purchased 6 years ago, these costs reflect changes in purchase prices and mortgage interest rates from 1972 to 1973; and changes in property taxes, insurance, fuel and utilities, and repairs and maintenance from 1978 to 1979.

for increased deduction for personal exemptions, higher standard deductions for the assumed family type in the budgets, and a decrease in tax rates. These deductions were offset by higher tax rates corresponding to higher incomes. The net result was that total personal income taxes increased approximately 10 percent at the lower level and 11 percent at the intermediate and higher levels. This contrasts to the 1977-78 income tax changes where taxes at the lower level rose 30 percent, and at the intermediate and higher level, 17 and 15 percent.

**Housing and utilities.** Housing consists of rental units only in the lower budget, and increased by 7.9 percent between autumn 1978 and autumn 1979. In the intermediate and higher budgets, housing includes both rentals and homeownership, and increased by 9.9 percent, largely because of increases in mortgage interest during 1972-73, and substantial increases in fuel and utility costs. Increases in housing costs had a greater impact on the intermediate and higher budgets than on the lower budgets, not only because of large rises in homeowner costs but also because housing accounts for a larger share of the consumption dollar at those levels.

The social security tax rate rose from 6.05 in 1978 to 6.13 percent in 1979, and the maximum income on which it is deducted increased from \$17,700 to \$22,900. The family budgets represent the costs of three hypo-

**Table 3. Indexes of comparative costs based on an intermediate budget for a 4-person family,<sup>1</sup> autumn 1979\***

[U.S. Urban average cost=100]

Area	Total budget	Cost of family consumption												Personal income taxes
		Total consumption	Food		Housing			Transportation <sup>7</sup>		Clothing	Personal care	Medical care <sup>8</sup>	Other family consumption <sup>9</sup>	
			Total	Food at home	Total <sup>4</sup>	Renter <sup>5</sup>	Homeowner <sup>6</sup>	Total	Auto-mobile owners					
Urban United States	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Metropolitan areas <sup>2</sup>	102	102	101	101	102	104	104	101	102	101	101	103	103	104
*Nonmetropolitan areas <sup>3</sup>	91	92	94	97	89	83	84	97	93	97	94	88	85	82
Northeast:														
Boston, Mass.	119	115	106	108	135	114	151	116	133	111	99	93	110	142
Buffalo, N.Y.	106	103	102	104	105	99	107	109	103	123	92	82	100	121
New York-Northeastern, N. J.	116	111	111	109	127	111	140	92	105	93	103	103	110	147
Philadelphia, Pa.-N.J.	104	102	112	109	100	87	106	96	109	73	92	103	105	119
Pittsburgh, Pa.	97	97	104	104	88	86	86	101	100	95	98	89	100	98
*Nonmetropolitan areas <sup>3</sup>	101	101	100	103	107	88	115	105	99	101	87	90	84	103
North Central:														
Chicago, Ill.-Northwestern Ind.	100	102	101	102	101	107	101	104	119	93	98	107	109	93
Cincinnati, Ohio-Ky.-Ind.	99	99	102	103	93	82	96	100	95	116	93	95	100	96
Cleveland, Ohio	102	103	100	98	102	86	108	101	100	107	126	101	107	96
Detroit, Mich.	101	101	99	99	103	95	109	97	96	97	104	109	100	105
Kansas City, Mo.-Kans.	96	97	97	98	86	88	82	107	101	108	119	97	101	89
Milwaukee, Wis.	104	102	97	96	107	100	112	102	97	113	107	96	103	114
Minneapolis-St. Paul, Minn.	104	99	101	100	97	103	96	99	94	101	109	88	109	132
St. Louis, Mo.-Ill.	97	98	105	106	90	84	86	107	106	96	98	89	102	92
*Nonmetropolitan areas <sup>3</sup>	92	93	94	97	91	96	86	96	91	106	99	84	87	86
South:														
Atlanta, Ga.	92	93	96	95	82	77	77	99	94	109	103	91	98	82
Baltimore, Md.	99	97	96	94	96	112	86	96	95	98	97	102	100	110
Dallas, Tex.	89	94	94	91	85	96	80	101	96	93	104	108	99	63
Houston, Tex.	93	97	98	95	86	85	82	100	95	108	111	117	96	68
Washington, D.C.-Md.-Va.	108	105	103	103	110	113	110	99	98	91	110	107	112	129
*Nonmetropolitan areas <sup>3</sup>	85	88	92	95	81	70	71	95	90	89	93	88	85	68
West:														
Denver, Colo.	100	100	96	97	96	87	93	104	99	132	91	92	102	99
Los Angeles-Long Beach, Calif.	97	98	97	94	92	119	85	105	104	96	97	127	92	87
San Diego, Calif.	98	99	95	91	97	107	97	103	97	98	99	124	100	89
San Francisco-Oakland, Calif.	105	105	102	101	103	148	93	108	107	107	119	118	99	103
Seattle-Everett, Wash.	101	105	100	97	106	135	99	103	98	114	118	110	105	80
Honolulu	126	117	126	131	122	142	119	104	99	104	114	107	113	176
*Nonmetropolitan areas <sup>3</sup>	94	94	94	97	90	104	82	96	92	109	97	93	85	96
Anchorage, Alaska	136	134	123	127	155	197	140	126	120	113	140	161	102	157

<sup>1</sup> The family consists of an employed husband, age 38, a wife not employed outside the home, an 8-year-old girl, and a 13-year-old boy.

<sup>2</sup> As defined in 1960-61. For a detailed description of these and previous geographical boundaries, see the 1967 edition of *Standard Metropolitan Statistical Areas*, prepared by the Office of Management and Budget.

<sup>3</sup> Places with population of 2,500 to 50,000.

<sup>4</sup> Housing includes shelter, housefurnishings, and household operations.

<sup>5</sup> Renter costs include average contract rent plus the cost of required amounts of heating fuel, gas, electricity, water, specified equipment, and insurance on household contents.

<sup>6</sup> Homeowner costs include interest and principal payments plus taxes; insurance on house and contents; water, refuse disposal, heating fuel, gas, electricity, and specified equipment; and home repairs and maintenance costs.

<sup>7</sup> The average costs of automobile owners and nonowners in the intermediate budget were

weighted by the following proportions of families: Boston, New York, Chicago, and Philadelphia, 80 percent for owners, 20 percent for nonowners; Baltimore, Cleveland, Detroit, Los Angeles, Pittsburgh, San Francisco, St. Louis, and Washington, D.C., with populations of 1.4 million or more in 1960, 95 percent for automobile owners and 5 percent for nonowners; all other areas, 100 percent for automobile owners.

<sup>8</sup> In total medical care, the average costs of medical insurance were weighted by the following proportions: 30 percent for families paying full cost of insurance, 26 percent for families paying half cost; 44 percent for families covered by noncontributory insurance plans (paid by employer).

<sup>9</sup> Other family consumption includes average costs for reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

\*Some areas previously shown are no longer available.

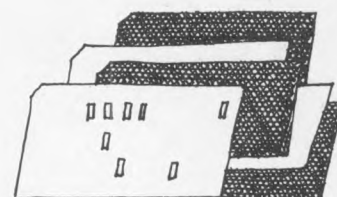
thetical lists of goods and services that were specified in the mid-1960's to portray three relative standards of living described as lower, intermediate, and higher. These budgets are for a precisely defined urban family of four: a 38 year-old husband employed full time, his non-working wife, a boy of 13, and a girl of 8. The family has, for each budget level, average inventories of clothing, housefurnishings, major durables, and other articles. The budgets pertain only to an urban family with the specified characteristics; no budgets are available for rural families. The budgets are not intended to represent a minimum level of adequate income or a subsistence level of living, nor do they indicate how families do or should spend their money.

Users should note that the procedures used in updating the budgets to 1979 differ from procedures used in 1978. As a result of the revision of the CPI program in January 1978, individual area price changes from autumn 1978 to autumn 1979 were available for only 25 of the 44 family budget areas. The urban U.S. average includes estimates for these areas, however, using price data for the appropriate region and population size classes which are available from the CPI. Non-metropolitan areas, which have always been shown as a separate class, have been similarly updated.

Complete data on the three family budgets can be obtained from the Bureau of Labor Statistics or any of its regional offices. □



# Research Summaries



## The workweek in 1979: fewer but longer workdays

JANICE NEIPERT HEDGES

The 4-day 40-hour workweek is the best known, but perhaps not the most significant, illustration of a trend toward fewer but longer workdays for full-time workers. Schedules that exceed the 40-hour standard are increasingly compressed into 5 days in order to provide a 2-day weekend.

The number of wage and salary workers who usually work 5.5 or 6 days a week declined by more than one-half million in the 6 years ended May 1979.<sup>1</sup> (See table 1.) This drop occurred despite a gain of about 1 million in the group of workers who are most likely to work more than 5 days, namely, those who work 41 hours or more per week. The explanation lies in the growing practice of squeezing the workweek into 5 days or less even if this requires workdays of 9 or 10 hours or even more.

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The compression of weekly hours into fewer days is evident below and above the 40-hour standard workweek. Among employees who usually work 35 to 39 hours, the proportion working 4.5 days or less increased from 5 to 7 percent from 1973 to 1979. Among those who usually work 41 to 48 hours, three-fifths were on 5-day schedules in 1979—up from less than one-half 6 years earlier. The trend away from 5.5 and 6-day weeks was evident even for those who work 49 hours or more a week. (See table 2.)

The push toward fewer but longer days is seen most clearly in the data for workweeks of a specific number of hours, rather than those which are expressed in intervals of hours, as the latter may mask movement within the interval (for example, relatively fewer workers at or near the upper margin). Thus, among employees who reported working 44 hours, the proportion working more than a 5-day schedule declined from one-half to one-third from 1973 to 1979. Among those working 48 hours a week, the proportion working more than 5 days declined from one-fourth to one-fifth.

The modest reductions in the weekly hours of wage and salary employees in this 6-year period (reflected in a decline from 42.5 to 42.3 in the average usual hours of full-time employees) fell far short of organized labor's

**Table 1. Nonfarm wage and salary workers who usually work full time, by usual number of days worked per week, May 1973 to 1979**

Year	Total	4.5 days or less				5 days	5.5 days or more			
		Total	3 days	4 days	4.5 days		Total	5.5 days	6 days	7 days
Number of workers (in thousands)										
1973	58,923	990	145	575	271	47,754	10,179	2,768	6,231	1,180
1974	59,442	1,108	190	653	265	48,891	9,443	2,559	5,751	1,133
1975	57,787	1,247	186	771	290	48,382	8,158	2,272	4,799	1,087
1976	59,700	1,271	215	744	312	49,768	8,662	2,307	5,240	1,115
1977	61,891	1,399	245	853	301	51,206	9,286	2,298	5,744	1,244
1978	63,943	1,400	207	893	300	53,014	9,529	2,475	5,802	1,252
1979	67,712	1,493	232	925	336	56,522	9,697	2,381	6,026	1,290
Percent distribution										
1973	100.0	1.7	0.2	1.0	0.5	81.0	17.3	4.7	10.6	2.0
1974	100.0	1.9	.3	1.1	.4	82.2	15.9	4.3	9.7	1.9
1975	100.0	2.2	.3	1.3	.5	83.7	14.1	3.9	8.3	1.9
1976	100.0	2.1	.4	1.2	.5	83.4	14.5	3.9	8.8	1.9
1977	100.0	2.3	.4	1.4	.5	82.7	15.0	3.7	9.3	2.0
1978	100.0	2.2	.3	1.4	.5	82.9	14.9	3.9	9.1	2.0
1979	100.0	2.2	.3	1.4	.5	83.5	14.3	3.5	8.9	1.9

NOTE: Because of rounding, sums of individual items may not equal totals. Data prior to 1978 exclude private household workers.

**Table 2. Nonfarm wage and salary workers by usual weekly hours and days in the workweek, May 1973, 1976, and 1979**

[In percent]

Usual time worked	1973	1976	1979
Average usual hours	42.5	42.1	42.3
Percent usually working			
35-39 hours in			
4.5 days or less	5.0	7.0	7.0
5 days	88.0	86.0	87.0
5.5 days or more	7.0	7.0	6.0
40 hours in			
4.5 days or less	1.0	1.0	2.0
5 days	96.0	96.0	95.0
5.5 days or more	3.0	3.0	3.0
41-48 hours in			
4.5 days or less	2.0	2.0	2.0
5 days	46.0	51.0	57.0
5.5 days or more	52.0	47.0	41.0
49-59 hours in			
4.5 days or less	2.0	2.0	2.0
5 days	45.0	49.0	50.0
5.5 days or more	54.0	49.0	48.0
60 hours or more in			
4.5 days or less	3.0	4.0	3.0
5 days	19.0	22.0	23.0
5.5 days or more	79.0	75.0	74.0

NOTE: Because of rounding, sums of individual items may not equal totals. Data prior to 1978 exclude private household workers.

often stated objective of a 4-day, 32-hour week. They did, however, facilitate the compression. A 5-day schedule is more feasible with a 45-hour week, for example, than with a 50-hour week. Nonetheless, in 1979, the number of workers who regularly worked 10 hours a day for 5 days was several times the number who worked 10 hours daily for 4 days (2.3 million versus .5 million.)

In the early 1970's, the 4-day, 40-hour workweek had been heralded as the successor to the standard 5-day week. At the close of the decade, however, 64 percent of all wage and salary workers, or 1 percentage point more than in 1973, were on 5-day, 40-hour schedules. Growth in the number of 4-day employees since 1977 had no more than kept pace with the overall growth in wage and salary employment. Work schedules which gave employees some choice in the timing of their work (for example, flexitime) seemed to be taking hold but had not resulted in any significant change in the number of workdays in the week.<sup>2</sup>

Compressed 4-day workweeks had come to be considered largely as special schedules. They were being used, for example, to provide larger police forces during high crime periods and to increase the utilization of

**Table 3. Nonfarm wage and salary workers who usually work full time, by usual number of days worked per week, and industry and occupational group, May 1979**

Industry and occupation	Total (in thousands)	Percent distribution					
		4.5 days or less	4 days	5 days	5.5 days	6 days	7 days
Total	67,712	2.2	1.4	83.5	3.5	8.9	1.9
<b>Industry</b>							
Goods-producing <sup>1</sup>	25,274	2.0	1.4	85.1	3.4	8.2	1.3
Mining	793	1.8	.8	72.7	2.3	14.5	8.7
Construction	4,456	3.0	2.4	85.9	2.9	7.3	.9
Manufacturing	19,711	1.7	1.2	85.8	3.4	7.9	1.1
Service-producing	42,438	2.3	1.4	82.5	3.6	9.3	2.3
Transportation and public utilities	5,188	1.8	1.4	86.1	2.1	6.8	3.1
Wholesale and retail trade	11,348	2.0	1.4	71.5	6.8	17.6	2.1
Finance, insurance, and real estate	4,236	1.4	.5	84.5	4.3	7.6	2.2
Services	17,120	2.3	1.4	86.1	2.5	6.4	2.6
Public Administration	4,545	4.6	1.9	90.4	.7	3.7	.6
Federal except postal	1,480	1.0	.1	96.2	.7	2.0	.1
Postal	613	( <sup>2</sup> )	( <sup>2</sup> )	91.6	.8	7.6	( <sup>2</sup> )
State	807	1.3	1.1	95.6	.5	1.5	1.1
Local	1,645	11.2	4.6	82.2	.8	4.8	1.0
<b>Occupation</b>							
White-collar workers	35,371	1.5	.8	84.5	4.1	8.0	1.9
Professional and technical	11,655	1.7	1.1	87.8	2.7	5.5	2.2
Managers and administrators	7,898	.8	.6	71.6	8.0	16.1	3.5
Sales workers	3,333	1.8	.9	70.7	8.4	16.1	3.1
Clerical workers	12,484	1.6	.8	93.2	1.8	3.2	.3
Blue-collar workers	25,761	2.3	1.6	83.2	3.3	9.5	1.7
Craftworkers	10,489	1.7	1.3	82.7	4.0	10.1	1.5
Operatives, except transport	9,232	2.2	1.4	85.4	2.4	8.4	1.6
Transport equipment operatives	2,818	3.9	2.7	76.1	3.6	13.3	3.1
Laborers	3,222	3.0	2.2	84.7	3.1	7.7	1.5
Service workers	6,580	5.8	3.2	79.2	1.3	11.1	2.5

<sup>1</sup> Total includes nonfarm workers in agricultural industries, not shown separately.  
<sup>2</sup> Not available.

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

capital equipment by scheduling more work outside the traditional daytime shifts. In continuous operations, rotating, 12-hour shifts that combined workweeks of 4 days with 3-day workweeks were being introduced to provide employees with more days off (and more free weekends) than under traditional scheduling.<sup>3</sup> Some viewed the 4-day workweek primarily as an energy conservation device in the event of a national emergency.<sup>4</sup>

The greater prevalence of workweeks of any given number of days in some industries than in others indicates special requirements in those industries as well as legal restrictions and custom. Five-day schedules were very widespread in Federal public administration in 1979 where employees were covered by requirements of the Federal Pay Act for premium pay after 8 hours work a day.<sup>5</sup> (See table 3.) Schedules of fewer than 5 days occurred most often in local government, largely because of the use of such schedules for police and firefighters. Full-time workweeks of 5.5 and 6 days were more common in trade than elsewhere, in part, because stores generally operate more days than offices or factories. In the service-producing sector as a whole, both longer and shorter workweeks were a little more prevalent than in the goods-producing group.

Wide differences also are observed by occupation. Clerical occupations had by far the highest proportion of 5-day workers, while workweeks of 5.5 and 6 days were most common for sales employees and managers and administrators. Service workers, 6 percent of whom were on schedules of 4.5 days or less, were more likely than other groups to work full time in fewer than 5 days. Among transportation equipment operators (a group that includes truck drivers), both the proportion working 4 days and the proportion working 6 days were higher than the overall average.

Overall, the proportion of full-time wage and salary workers who usually work 5 days or less, rose by 3 percentage points, to almost 84 percent, in the 6 years ended May 1979. □

— FOOTNOTES —

<sup>1</sup> Findings in this report are based on information collected once a year since 1973 through a May supplement to the monthly Current Population Survey, which is conducted for the Bureau of Labor Statistics by the Bureau of the Census. The information is provided by a question, "How many days a week does . . . usually work at this job?," cross-classified with questions on the monthly schedules. The data refer to the number of days per week that are usually worked by nonfarm wage and salary employees who work full time (35 hours or more) on their sole or primary job.

<sup>2</sup> Flexitime in its simplest form has no impact on the number of days worked; employees can vary the hour at which they begin and end work, but are required to put in a full day every day. However, under more advanced forms of flexitime, workers can work longer days occasionally to shorten their workweek by a half day, or even more.

<sup>3</sup> Herbert R. Northrup, James T. Wilson, and Karen M. Rose,

"The Twelve-Hour Shift in the Petroleum and Chemical Industries," *Industrial and Labor Relations Review*, April 1979, pp. 312-26.

<sup>4</sup> "Concepts for an Energy Conservation Contingency Plan: Compressed Work Week." Draft, Jack Faucett Assoc., Inc. under contract to U.S. Department of Energy, 1979.

<sup>5</sup> The Federal Employees Flexible & Compressed Work Schedules Act of 1978 (Public Law 95-390) has temporarily suspended these provisions for agencies or work units participating in approved experiments with work schedules.

## Most workers find jobs through word of mouth

MARY CORCORAN, LINDA DATCHER,  
AND GREG J. DUNCAN

A majority of workers heard about their current jobs through friends and relatives, according to a recent nationally representative sample of adult workers, and more than one-third of all workers had help in getting their jobs. Black men were as likely as white men to have heard about or obtained their current jobs informally. Informal channels were used more among young workers, less educated workers, and blue-collar workers.

These data are from the 11th wave of the Panel Study of Income Dynamics, an ongoing, longitudinal study of more than 5,000 American families which was begun in 1968.<sup>1</sup> The sample for this study is restricted to male household heads, female household heads, and wives, all of whom were under age 45 in 1978 and worked at least 250 hours in 1977. There were 3,759 observations; 1,499 white men, 667 black men, 988 white women, and 605 black women. When weighted, these data represent the population of young working adults living in their own households. All heads of households responded for themselves; for married couples, husbands reported for their wives.

Three distinct aspects of informal job search were investigated: "search at the extensive margin," "search at the intensive margin," and "influence patterns." Search at the extensive margin involves workers obtaining wage offers from additional employers; search at the intensive margin involves obtaining additional information about job offers already in hand.<sup>2</sup> Responses to the first question, "How did you first hear about a job with your

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present employer—was it through a friend, a relative, a want ad, an employment agency, or what?” provide some information about search at the extensive margin. Responses to the second question, “Before you got your first job with your present employer, did you know anyone who worked there?” provide a dichotomous measure of information at the intensive margin. Personal contacts who are already working for a potential employer may provide jobseekers with useful information about working conditions, fringe benefits, and advancement opportunities. Responses to the third set of questions, “Do you think there was anyone who may have helped you get the job?” and “How did they help?” provide measures of influence, that is, whether the workers received any help at all from personal contacts in getting their current jobs.

**How workers hear about their jobs**

Friends, relatives, and personal contacts were a major source of information and help to workers seeking jobs. About half of all workers heard about their current job through a friend or relative and about half knew someone who worked for their current employer before they began work. Reports of influence, while less common, were still numerous. About 40 percent of the men and one-third of the women reported that someone helped them get their current job.

In contrast to some previous findings,<sup>3</sup> we found that black men were more likely than white men to have heard about a job from a friend. In addition, they were more likely to have known someone who worked there and to be helped by someone in getting the job. But

looking at the kind of help received, white men were somewhat more likely to report having received direct help than were black men.

Women were considerably less likely than men to have used informal information and influence channels in obtaining their current jobs. Recall, however, that husbands reported on their wives’ use of such channels. Such a difference would be expected if husbands systematically underestimated the extent to which their wives had access to friendship networks to learn about and get jobs. When women’s use of informal information and influence channels was compared by marital status, we found that white female heads of households and white wives were equally likely to have used such channels. Black female heads, on the other hand, consistently reported more use of such channels than did black wives. This information could be accurate rather than the result of husbands’ misreporting because the pressure to get high wage jobs is stronger for female heads of households. However, black female heads reported considerably less use of such channels than did black men and slightly less than did white men.

**Users of contacts**

Table 1 examines use of informal information and influence networks by education and occupation. Construction of the first two variables, “Heard about current job from a friend or relative,” and “Knew someone on current job,” is self-explanatory. The third, “Received help on current job” is formed from affirmative responses to the first question regarding influence.

Regardless of race-sex group, workers with college

**Table 1. Proportion of workers receiving information about and help in obtaining current job, by occupation and education**

[In percent]

Occupation and education	Heard about current job from a friend or relative				Knew someone on current job				Received help in getting job			
	White men	White women	Black men	Black women	White men	White women	Black men	Black women	White men	White women	Black men	Black women
<b>Occupation:</b>												
Professional	31.9	36.5	49.1	41.4	43.4	40.2	53.7	44.8	32.5	26.5	30.6	33.0
Managerial	48.1	41.0	<sup>1</sup> 41.7	<sup>1</sup> 18.2	52.8	37.0	<sup>1</sup> 79.5	<sup>1</sup> 21.6	43.9	33.0	<sup>1</sup> 35.8	<sup>1</sup> 18.2
Clerical and sales	51.6	47.1	61.6	34.5	53.7	45.1	69.8	37.8	40.1	35.8	40.2	33.2
Foremen and craftsmen	58.1	( <sup>2</sup> )	61.7	<sup>1</sup> 70.4	63.6	( <sup>2</sup> )	69.4	<sup>1</sup> 80.0	41.6	( <sup>2</sup> )	44.7	<sup>1</sup> 64.2
Military, police, fire	46.1	( <sup>2</sup> )	37.1	( <sup>2</sup> )	48.9	( <sup>2</sup> )	34.5	( <sup>2</sup> )	24.0	( <sup>2</sup> )	47.4	( <sup>2</sup> )
Transport operatives	69.8	<sup>1</sup> 35.9	69.6	( <sup>2</sup> )	64.3	<sup>1</sup> 53.6	67.7	( <sup>2</sup> )	53.8	<sup>1</sup> 24.5	34.7	( <sup>2</sup> )
Other operatives	61.2	63.6	60.3	52.2	64.3	71.6	74.6	72.8	41.6	23.1	42.4	21.5
Laborers, household	74.6	( <sup>2</sup> )	52.9	<sup>1</sup> 78.1	67.0	( <sup>2</sup> )	61.2	<sup>1</sup> 27.3	51.1	( <sup>2</sup> )	38.6	<sup>1</sup> 76.6
Other service	42.5	53.6	59.9	45.8	60.4	47.7	66.1	55.8	34.6	32.3	60.7	38.1
Other	<sup>1</sup> 54.5	45.5	( <sup>2</sup> )	<sup>1</sup> 35.5	<sup>1</sup> 45.5	48.3	( <sup>2</sup> )	<sup>1</sup> 87.1	<sup>1</sup> 46.9	27.8	( <sup>2</sup> )	<sup>1</sup> 58.1
<b>Education:</b>												
8 grades or fewer	69.3	53.4	60.4	26.6	77.5	66.2	76.1	68.5	48.7	27.4	53.1	56.5
9-11	59.5	61.0	64.9	41.1	60.7	57.7	74.2	68.5	40.0	29.4	45.3	28.3
12	64.2	51.0	55.6	45.7	66.2	53.0	73.7	46.3	46.3	31.8	50.0	29.9
12 and above	51.8	42.4	49.2	44.2	56.5	42.6	56.8	33.3	40.9	34.7	47.0	40.8
13-15	53.4	45.2	68.8	49.0	58.1	41.0	60.8	49.6	41.7	32.1	28.1	41.6
B.A.	38.5	37.1	38.3	24.7	40.6	43.4	54.6	41.0	33.9	31.4	31.6	27.2
Advanced degree	22.8	50.2	( <sup>2</sup> )	( <sup>2</sup> )	43.6	31.9	( <sup>2</sup> )	( <sup>2</sup> )	27.1	23.1	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Result based on 10-25 observations.

<sup>2</sup> Fewer than 10 observations.

and advanced degrees and professional workers were considerably less likely than the average worker to report having used informal information and influence channels in obtaining their current jobs. While more than half of all white men reported having heard about their current job from a friend, only 32 percent of white male professionals, only 39 percent of white men with B.A. degrees and only 23 percent of white men with advanced degrees reported that they heard about their current job from a friend. Forty percent of all white men reported that someone helped them get their present job, but only one-third of the white men with professional jobs, college degrees, or advanced degrees reported such help. White men in blue-collar occupations were more likely than other white men to hear about their job from a friend, to know someone on the job, and to be helped by someone. Perhaps, informal information and influence networks substitute for the more formal credentials used by well-educated and professional workers.

The three information and influence measures were regressed on schooling, job tenure, and on age when the job was taken. For white men, education and the age when they took the job were negatively associated with all three information and influence measures and significantly so in all but one instance. That is, the younger and less educated a white man was when he obtained a job, the more likely it was that he heard about that job from friends or relatives, that he knew someone who worked there, that someone helped him get the job, or that he both knew someone and received help getting the job.

Part of the negative associations with workers' education and age may be an occupational effect. That is, well-educated and older workers may be more likely to seek work in occupations which emphasize formal credentials and past experience or training. Results when occupation is controlled suggest that this may be true for schooling, but not for the age when the job was taken. When occupation is controlled, the magnitude of the negative association between schooling and the information and influence measures dropped sharply for white men. But controls for occupation had no effect on the negative association between the ages when people took their current job and influence and information measures.

For the other groups, the amount of schooling and the age when workers took their jobs were not consistently associated with the measures of informal information and influence. For black men, schooling was negatively and significantly associated with knowing someone and having received help, but these associations dropped sharply and became insignificant once occupation was controlled. □

<sup>1</sup>The Panel Study of Income Dynamics is conducted under the direction of Greg J. Duncan and James N. Morgan at the Survey Research Center at the University of Michigan, Ann Arbor. This survey is described in *A Panel Study of Income Dynamics: Study Design Procedures and Available Data*, Volumes I–XI (Institute for Social Research, University of Michigan, Ann Arbor, Mich.). A more complete description of the procedures is in Mary Corcoran, Linda Datcher, and Greg J. Duncan, "Information and Influence Networks in Labor Markets" in Greg J. Duncan and James N. Morgan, eds., *Five Thousand American Families—Patterns of Economic Progress*, Volume VIII, (Ann Arbor, Mich., Institute for Social Research, 1980).

<sup>2</sup>See Albert Rees, "Information Networks in Labor Markets," *American Economic Review*, May 1966, pp. 559–66.

<sup>3</sup>See David W. Stevens, "A Reexamination of What is Known About Job Seeking Behavior in the United States," *Labor Market Intermediaries*, Special Report 22 (Washington, National Commission for Manpower Policy, 1978), pp. 55–104.

## Conflicts among work, leisure, and family roles

GRAHAM L. STAINES AND PAMELA O'CONNOR

Workers in the 1977 Quality of Employment Survey were asked, "How much do your job and your free time activities interfere with each other?"<sup>1</sup> A third of the 1,515 workers reported that conflict between work and free time activities occurred "a lot" or "somewhat."

When asked "In what ways do they interfere with each other?" these workers most frequently mentioned excessive amounts of work which prevented them from spending enough time in other activities. The second most common complaint involved work schedules that interfered with leisure. "Other" time conflicts ranked third and reports that work makes the worker too tired or too irritated to engage in leisure activities were fourth.

Demographic subgroups of workers reported different types of conflict between work and leisure. Men, who on average work more hours than women, were significantly more likely than women to report excessive amounts of work. Older workers (45 years and over) were significantly less likely than younger workers to report excessive amounts of work, scheduling conflicts, or spillover from work of fatigue and irritation. Married workers were more likely than unmarried workers to report excessive amounts of work, but were less likely to report scheduling conflicts. Parental responsibility was positively and significantly associated with reports of

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excessive amounts of work, but not with reports of the other types of interference. Workers with a high school diploma cited spillover of fatigue and irritation more frequently than did workers in other educational categories, but education was not related to the other types of interference. Workers in managerial and administrative occupations were the group most likely to complain of excessive work, whereas service workers were the group most inclined to mention scheduling conflicts.

### Factors associated with conflict

Conflict between work and leisure clearly appears related to the demographic characteristics of the worker and to various dimensions of work, leisure, and family roles.<sup>2</sup> Table 1 summarizes the findings for the degree of conflict associated with demographic factors. The "mean" in the table is the average value of response to the question: "How much do your job and your free time activities interfere with each other?" Degrees of interference were scored from 1 to 4 points, with "not at all" equaling 1 point and "a lot" equaling 4 points.

Working men reported significantly more conflict between work and leisure than did working women, as did younger workers (under age 45), compared with older workers. The degree of interference was not related to marital status but was positively and significantly

related to level of parental responsibilities: parents of children under age 6 were more likely to report conflict, followed by parents of school-age children, and then workers with no children at home. Moreover, workers with a college degree or above reported significantly more conflict than did those with less education. Among the major occupational groups, workers in managerial and administrative occupations registered the highest level of conflict.

A number of work-related items were significantly related to work-leisure conflict. (See table 2.) As expected, amount of time spent on the job was positively and significantly related to interference. Another significant factor was shift assignment: workers on afternoon or night shifts reported the highest levels of interference; those on day shifts reported the lowest level; and those on rotating shifts or other irregular patterns registered scores in between.

The significance that workers assign to their work role was assessed by asking the following two questions: "How often do you think about your job when you're busy doing something else? Often, sometimes, rarely, never" (role perseverance); and "How much do you agree or disagree that the most important things that happen to you involve your job? Strongly agree, agree, disagree, strongly disagree" (role importance). Role perseverance was significantly and positively related to interference, but role importance was not. Interference produced a significantly negative relationship with satisfaction with work.<sup>3</sup>

Several leisure-related items also are related significantly to reported conflict between work and leisure. (See table 3.) Although an index of frequency of leisure activities<sup>4</sup> was not related to degree of conflict, an index of variety of leisure activities was positively and significantly related to interference. In other words, it is not so much the total amount of leisure activity as the number of different types of leisure activities that appears to predict interference. When specific leisure activities were considered separately, two contrasting patterns were identified. Frequency of participation in those activities that required leaving the house and going to a scheduled event (for example, a concert, play, movie, or party) was significantly associated with high levels of work-leisure conflict. Participation in informal activities that take place at or near home (for example, working on hobbies at home or working around the house) tended to be negatively related to conflict, especially among those who at least sometimes engage in the activity; in the case of watching television, there was a significantly negative relationship (that is, more viewing was associated with lower conflict). Thus, individuals can reduce high levels of work-leisure conflict by opting for informal and easily organized leisure activities, especially television viewing. Furthermore, time spent on leisure

**Table 1. Reported conflict between work and leisure, by selected demographic characteristics**

Characteristic	Mean <sup>1</sup>
Sex:	
Men .....	<sup>2</sup> 2.26
Women .....	<sup>2</sup> 2.10
Age:	
Under 30 years .....	<sup>2</sup> 2.29
30-44 years .....	<sup>2</sup> 2.29
45 years and older .....	<sup>2</sup> 2.02
Marital status:	
Married .....	<sup>3</sup> 2.23
Not married .....	<sup>3</sup> 2.13
Parental status:	
No children .....	<sup>2</sup> 2.13
Youngest child 6-17 years .....	<sup>2</sup> 2.22
Youngest child under 6 years .....	<sup>2</sup> 2.34
Education:	
Less than high school diploma .....	<sup>2</sup> 2.05
High school diploma .....	<sup>2</sup> 2.21
Some college .....	<sup>2</sup> 2.20
College degree or more .....	<sup>2</sup> 2.39
Occupation:	
Professional and technical .....	<sup>2</sup> 2.21
Managerial and administrative .....	<sup>2</sup> 2.41
Sales and clerical .....	<sup>2</sup> 2.02
Crafts .....	<sup>2</sup> 2.15
Operatives .....	<sup>2</sup> 2.39
Service .....	<sup>2</sup> 2.07

<sup>1</sup> The mean is the average value of response to the question: "How much do your job and your free time activities interfere with each other?" Degrees of interference were scored from 1 to 4 points, with "not at all" equaling 1 and "a lot" equaling 4. Levels of significance indicate the presence of significant differences among subgroup means (based on analysis of variance).

<sup>2</sup> Significant at .01.

<sup>3</sup> Not significant.

during a workday was significantly negatively related to work-leisure interference, although leisure time on a day off was not.<sup>5</sup> In addition, the significance of leisure (role perseveration, role importance) was positively and significantly associated with work-leisure conflict, whereas satisfaction with leisure produced a significantly negative association.<sup>6</sup>

Certain dimensions of family roles were also related to degree of work-leisure conflict. Interference increased significantly for one measure of the significance of family life (role importance), but not with the other (role perseveration), and interference produced a significantly negative relationship to satisfaction with both family life and marriage.<sup>7</sup>

In sum, reports of work-leisure conflict tend to be positively associated with involvement in all major roles of life (work, leisure, family), regardless of whether involvement is measured in behavioral (variety of activities, time allocated) or attitudinal (significance assigned to role) terms. Exception: conflict is negatively related to time spent on leisure during a workday. In addition, such conflict is consistently associated with low satisfaction with each of the major roles of life.

### Inferred conflict

An alternative measure of conflict between work and leisure involves bivariate relationships between the amount of time spent at work and the amount of time spent on leisure activities. Generally, time spent in these activities should be negatively related (that is, the more time spent in one role, the less time available for other roles). This "inferred conflict" approach assumes that the stronger the negative bivariate relationship (or the weaker the positive relationship), the greater the level of conflict.

Actually, reported conflict and inferred conflict differ in a number of methodological respects. Reported conflict represents a subjective approach to measurement, inferred conflict a more objective approach; reported conflict incorporates all types of conflict between work and leisure, inferred conflict taps only the conflict concerning amount of time; reported conflict is measured at the level of the individual worker, inferred conflict is measured at an aggregate level; and, while reported conflict is measured for only two pairs of roles (work and leisure, work and family), inferred conflict may be assessed for any and all role pairings.

Data on reported and inferred conflict are best compared in terms of demographic differences regarding time. Reported conflict between work and leisure (and, likewise, between work and family life) was greater for men than for women on the issue of excessive time spent at work. Similarly, for work and leisure and also for work and two family roles (childcare and home chores), inferred conflict (as indicated by the strength of

**Table 2. Reported conflict between work and leisure, by selected work-related items**

Item	Mean <sup>1</sup>
Time on the job: <sup>2</sup>	
6.9 hours or less	<sup>3</sup> 2.05
7.0 - 7.9 hours	<sup>3</sup> 2.13
8.0 hours	<sup>3</sup> 2.12
8.1 - 9.9 hours	<sup>3</sup> 2.25
10 hours or more	<sup>3</sup> 2.47
Shift: <sup>4</sup>	
Day	<sup>3</sup> 2.12
Afternoon	<sup>3</sup> 2.57
Night	<sup>3</sup> 2.51
Rotating	<sup>3</sup> 2.20
Other	<sup>3</sup> 2.31
Role perseveration:	
Never	<sup>3</sup> 2.04
Rarely	<sup>3</sup> 2.21
Sometimes	<sup>3</sup> 2.14
Often	<sup>3</sup> 2.36
Role importance:	
Disagree	<sup>5</sup> 2.17
Agree	<sup>5</sup> 2.23
Strongly agree	<sup>5</sup> 2.30
Satisfaction with work:	
Not at all or not too	<sup>3</sup> 2.62
Somewhat	<sup>3</sup> 2.30
Very	<sup>3</sup> 2.02

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> Time spent working on a workday was assessed using the question "During the average week, how many hours do you work, not counting the time you take off for meals?" For each worker, the number of hours worked per week was then divided by the number of days worked to yield an average number of hours worked per day.

<sup>3</sup> Significant at .01.

<sup>4</sup> Day or regular shift starts between 4 a.m. and 12 noon, afternoon shift starts between 12 noon and 8 p.m., and night shift starts between 8 p.m. and 4 a.m.

<sup>5</sup> Not significant.

negative relationships among amounts of time spent in various roles) was greater for men than for women.<sup>8</sup> This difference can be explained by the fact that men work longer hours than women and the amount of time they spend at work generates more conflict between work and other roles.

By the same token, because women spend more time than men in family roles, inferred conflict between leisure and family roles and also among family roles should be greater for women than for men. For the most part, it was. (See table 4.) The bivariate association between leisure time and time spent in childcare was significantly positive for men both on workdays and on days off, but was significantly negative for women on workdays and not significant on days off. For men, the relationship between the time spent on leisure and home chores was significantly positive for workdays and not significant for days off; yet for women it was not significant for workdays and significantly negative for days off. On days off, time spent in two family roles, childcare and home chores, was significantly positively related among men, but not significantly related among women. On workdays, however, a contrary pattern appeared: time allocated to these two family roles was positively and significantly related, but more so for women than for men.

To summarize, when workers have to devote substantial time to a demanding social role (for example, work, childcare, or home chores), conflicts arise concerning the magnitude of time allotments. In the case of work, the issue of excessive time applies more to men than to women, based on data from both the reported and inferred approaches to measuring conflict. In the case of family roles, the pattern is reversed; with one exception, the data on inferred conflict indicate that women experience greater time conflict among leisure and family roles than do men.

These data on inferred conflict among leisure and family roles call for additional interpretation. The concept of partial overlap of activities offers the best explanation of positive relationships among time spent in these roles: when an appreciable number of activities qualify as belonging equally to two different roles, a positive association may emerge between the amounts of time allocated to the two roles.

**Table 3. Reported conflict between work and leisure, by selected leisure-related activities**

Activity	Mean <sup>1</sup>
<b>Leisure activities:<sup>2</sup></b>	
Frequency index	
1.1-3.5 (low)	3.215
3.6-4.0	3.218
4.1-4.4	3.218
4.5-4.8	3.230
4.9-6.1 (high)	3.221
Variety index	
1-8 (low)	4.210
9	4.230
10	4.224
11 (high)	4.234
<b>Time spent on leisure activities:</b>	
On workday	
Less than 1 hour	4.246
1-1.9 hours	4.229
2 hours	4.214
2.1-3 hours	4.208
More than 3 hours	4.209
On days off	
2 hours or less	3.215
2.1-3.9 hours	3.216
4-5.0 hours	3.216
5.1-7.9 hours	3.225
8 hours or more	3.229
<b>Role perseverance:<sup>5</sup></b>	
Never	4.184
Rarely	4.201
Sometimes	4.224
Often	4.263
<b>Role importance:<sup>6</sup></b>	
Disagree	4.214
Agree	4.232
Strongly agree	4.235
<b>Satisfaction with leisure:</b>	
Not at all or not too	4.278
Somewhat	4.222
Very	4.191

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> See text footnote 4.

<sup>3</sup> Not significant.

<sup>4</sup> Significant at .01.

<sup>5</sup> "How often do you think about your free time activities when you are busy doing other things?"

<sup>6</sup> "How strongly do you agree or disagree that the most important things that happen to you involve your free time activities?"

**Table 4. Bivariate relationships among time spent in work, leisure, and family roles on workdays and days off, by sex**

Activity	Mean time in leisure role <sup>1</sup>		Mean time in family role <sup>1</sup>			
	Men	Women	With children <sup>2</sup>		On home chores	
			Men	Women	Men	Women
<b>WORKDAYS</b>						
Time at work:						
6.9 hours or less	3.285	4.221	3.211	5.393	3.148	4.327
7 to 7.9 hours	3.249	4.217	3.230	5.337	3.144	4.274
8 hours	3.247	4.198	3.202	5.348	3.129	4.282
8.1 to 9.9 hours	3.216	4.200	3.171	5.338	3.115	4.265
10 hours or more	3.167	4.148	3.149	5.272	3.090	4.236
Time in family role:						
With children <sup>2</sup>						
Less than 1 hour	3.167	4.259	...	...	4.085	3.275
1 hour	3.173	4.174	...	...	4.105	3.253
1.1 to 2 hours	3.202	4.154	...	...	4.123	3.327
2.1 to 4 hours	3.229	4.148	...	...	4.131	3.336
4.1 hours or more	3.275	4.188	...	...	4.161	3.432
On home chores						
Less than 1/2 hour	3.208	5.233	...	...	...	...
1/2 to 1 hour	3.212	5.230	...	...	...	...
1.1 to 2 hours	3.229	5.214	...	...	...	...
2.1 to 3.5 hours	3.249	5.188	...	...	...	...
3.6 hours or more	3.310	5.185	...	...	...	...
<b>DAYS OFF</b>						
Time in family role:						
With children <sup>2</sup>						
2 hours or less	3.440	5.365	...	...	3.330	5.555
2.1 to 4 hours	3.477	5.291	...	...	3.388	5.662
4.1 to 6 hours	3.477	5.297	...	...	3.408	5.708
6.1 to 9 hours	3.550	5.342	...	...	3.483	5.687
9.1 hours or more	3.614	5.394	...	...	3.472	5.677
On home chores						
Less than 1.6 hours	5.95	3.598	...	...	...	...
1.6 to 3.4 hours	5.547	3.527	...	...	...	...
3.5 to 4.5 hours	4.92	3.454	...	...	...	...
4.6 to 7.5 hours	5.69	3.78	...	...	...	...
7.6 hours or more	5.85	3.78	...	...	...	...

<sup>1</sup> The mean is the average value of response to these questions: "On the average, on days when you're working, about how much time do you spend on your free time activities? ... And about how much time on days when you're not working?" "On average, on days when you're working, about how much time do you spend (taking care of or) doing things with your children? ... And how much time on days when you're not working?" "On the average, on days when you're working, about how much time do you spend on home chores — things like cooking, cleaning, repairs, shopping, yardwork and keeping track of money and bills? ... And how much time on days when you're not working?"

<sup>2</sup> Includes only parents with children under age 18.

<sup>3</sup> Significant at .01.

<sup>4</sup> Significant at .05.

<sup>5</sup> Not significant.

The notion of partial overlap also applies to the differences in inferred role conflicts among men and women; in particular, to the fact that the bivariate associations among time spent in leisure and family roles tend to be positive for men and negative for women. Among men, there would appear to be some overlap of leisure and childcare activities, likewise between leisure activities and home chores and, by implication, between childcare and home chores. Generally, leisure is thought of as more enjoyable than either childcare responsibilities or home chores. Thus, the postulated overlap of activities among men raises the possibility that the leisure of men (but not women) may include childcare responsibilities and home chores. Because working men reported significantly greater satisfaction with their leisure and with their family life than did working women, it is



likely that the childcare activities and home chores of working men are sufficiently enjoyable to be considered leisure. In the case of childcare, for example, many men presumably allow their wives to assume most of the demanding and least enjoyable responsibilities, so that the time they spend with their children is consequently viewed as recreational. There is also the further possibility that fathers, at most, are expected to help with the children, whereas mothers typically have the much more demanding assignment of taking responsibility for them.<sup>9</sup>

The one finding based on inferred conflict that remains to be explained concerns the relationship between the two family roles (childcare and home chores) on workdays. As noted, women registered a stronger positive association between time allocated to these two roles on workdays than did men. The inference that women experience less conflict between childcare and home chores on workdays should be resisted, because the associations for both sexes are appreciably positive. Far more plausible is the contention that in their typical rush for time on workdays, mothers who work outside the home perform these two activities simultaneously, while fathers engage in only one activity at a time.<sup>10</sup> Thus, because mothers perform their childcare responsibilities and home chores in parallel fashion during the limited amount of time they have available on workdays, their time allocations emerge as more strongly and positively associated than do those of fathers.

WHEN THE ISSUE is amount of time, data based on measures of both reported conflict and inferred conflict indicate that interference between work and leisure and between work and family roles is greater among men than women. Yet, additional data on inferred conflict suggest that conflicts between leisure and family roles and between the two family roles studied (childcare and home chores) tend to be greater for women than men. □

— FOOTNOTES —

<sup>1</sup> Details of the survey's sample, measures, and response distributions appear in Robert P. Quinn and Graham L. Staines, *The 1977 Quality of Employment Survey* (Ann Arbor, Mich., Survey Research Center, 1979). For a general discussion of the survey's results, see Graham L. Staines and Robert P. Quinn, "American workers evaluate the quality of their jobs," *Monthly Labor Review*, January 1979, pp. 3-12.

<sup>2</sup> For a detailed discussion of work-family conflict, see Joseph H. Pleck, Graham L. Staines, and Linda Lang, "Conflicts between work and family life," *Monthly Labor Review*, March 1980, pp. 29-32.

<sup>3</sup> Satisfaction was determined in terms of the question: "All in all, how satisfied would you say you are with your job? Very satisfied, somewhat satisfied, not too satisfied, or not at all satisfied."

<sup>4</sup> Respondents were asked about the frequency of their participation in specific leisure activities: "How often do you . . . (1) watch television, (2) read newspapers, magazines, or books, (3) visit with family, friends, or neighbors, either at each other's homes or by telephone, (4) play in athletic games or do other active things like go bike riding or swimming, (5) work on hobbies at home, (6) work around the house or yard for pleasure, (7) eat out at restaurants, (8) go to museums, concerts, plays, or lectures, (9) go to the movies, (10) go to parties, nightclubs, or dancing places, (11) go to church or synagogue?" The responses ranged from "nearly every day" to "never." From these measures, we derived an index of frequency of leisure activities which is the average of the scores for all leisure categories for which the worker reported frequency of participation, with each category scored from zero ("never") to seven ("nearly every day") and an index of variety of leisure activities which is the number of different types of leisure in which the worker engages at least several times a year (the worker received one point for each type of leisure for which his or her response was something other than "never" or "once a year or less").

<sup>5</sup> Amount of time spent on leisure was measured by asking, "On the average, on days when you're working, about how much time do you spend on your free time activities? . . . And about how much time on days when you're not working?"

<sup>6</sup> The questions used to assess the significance of leisure activities (role perseverance and role importance) and the measure of satisfaction with leisure activities were the same as those for significance of work, except that the phrase "your job" was replaced with "your free time activities."

<sup>7</sup> The questions used to measure significance of family life correspond closely to those used for work and leisure. For role importance, the phrase "your husband/wife and your children" replaced the phrases "your job" and "your free time activities." In the case of role perseverance, this substitution of phrases is repeated and, in addition, the response categories are slightly modified to take into account a more negatively skewed response distribution: "How often do you think about your husband/wife and your children when you're busy doing other things? Always, often, sometimes, rarely." For similar reasons, the questions measuring satisfaction with family life and with marriage likewise required modifications: "All in all, how satisfied would you say you are with your family life?" and "All in all, how satisfied would you say you are with your marriage? Extremely satisfied, very satisfied, somewhat satisfied, not too satisfied."

<sup>8</sup> The measures of time spent in these two family roles resemble the earlier measures on time spent on leisure: "On average, on days when you're working, about how much time do you spend (taking care of or) doing things with your children? . . . And how much time on days when you're not working?" "On the average, on days when you're working, about how much time do you spend on home chores—things like cooking, cleaning, repairs, shopping, yardwork, and keeping track of money and bills? . . . And how much time on days when you're not working?"

<sup>9</sup> Similarly, an intensive investigation of 14 families in which both husband and wife worked suggested that although husbands share certain childcare duties with their wives, the responsibility for seeing that such tasks get done ultimately falls on the wives in most cases. See Laura Lein, *Work and Family Life* (Cambridge, Mass., Center for the Study of Public Policy, 1974), pp. 45-46.

<sup>10</sup> Lein comments specifically on this sex difference in the simultaneity of activities: "Unlike mothers who are trying to do other chores while watching their children, fathers' hours of child care are more often devoted to child care exclusively." (See *Work and Family Life*, p. 109.)

# Foreign Labor Developments



## American wood products workers study European job safety systems

MATT WITT

A delegation from the International Woodworkers of America and the American Labor Education Center has completed a month-long tour to study occupational safety and health practices in Sweden, West Germany, and Austria.<sup>1</sup> Group members, including local union safety committee representatives, union safety staff, and government officials from Washington State and British Columbia, visited 20 sawmills, papermills, hardboard plants, and logging operations in the three countries. They met with local union and management officials at each site and spoke to officials of unions, companies, and government agencies.

### The Swedish method

The Swedish system is the most comprehensive. Its centerpiece is a national Work Environment Fund, created in 1972 and financed by a 0.1 percent payroll tax on all employers. Its board includes equal representatives of labor and management, plus a chairperson who is a retired union president. The fund primarily finances research and training. Its annual budget for work environment research is approximately \$22 million, with topics including control of noise, toxic substances and stress, ergonomics, and health effects of various work schedules.

Proposals are presented to the fund by researchers in universities and private firms, then reviewed by committees of employers and union representatives in each industry. Under a special current project, the fund is spending more than \$1 million to train union staff members to both evaluate research proposals and generate more of their own.

In the wood products industry, one environmental research group has been working in 15 sawmills, a similar group has concentrated on factories, such as furniture and prefab housing plants, and another has worked in forestry under an additional \$1 million fund grant.

These groups include engineers, doctors, professors, psychologists, and representatives of the unions, employers, and equipment manufacturers. Their achievements are explained to the unions' regional safety representatives, at the fund's expense, who pass the results on to local union stewards.

The International Woodworkers of America delegation observed many operations which, aided by research findings, are now meeting Sweden's standard for average daily noise exposure of 85 decibels. (The U.S. standard is 90 decibels.) In sawmills visited by the delegation, airborne dust levels were reduced below 1 milligram per cubic meter through use of enclosures for saws and local ventilation. Pentachlorophenols, widely used as wood preservatives in the United States, have been removed from Swedish mills because of concern about their effect on workers' reproductive systems. Chain saw-related hand and wrist injuries in the logging industry were reduced by 90 percent between 1967 and 1976, chiefly due to innovative designs for hand guards. Following the introduction of chain brakes, foot and leg injuries were reduced by more than 50 percent in one year.

Since 1974, the fund has paid for the training of about 250,000 local union safety stewards and supervisors (from a work force of 4.1 million). Individual employers pay the lost-time wages (nearly \$30 million per year) for those in training.

The 40-hour basic courses cover such topics as workplace planning, noise, ventilation, toxic substances, illumination, ergonomics, and psychosocial factors such as job satisfaction. Training is conducted by the unions in "study circles" rather than in the formal classroom style used in the United States. Trained study circle leaders, who generally are workers rather than safety technicians, guide the discussions. Written materials and film strips explain basic principles, which are then applied by the students during special workplace inspections. A study circle graduate goes back to work with lists of conditions which must be corrected.

### Committees created

Under a combination of national laws and contracts, there must be enough elected safety stewards at every workplace with 5 employees or more to cover each work area on each shift. Each workplace with 50 em-

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ployees or more must have a labor-management safety committee with more than half of its members elected by the union. In smaller workplaces, a committee must be created if the workers feel it necessary; otherwise, a representative from the appropriate union region performs the committee functions. The committees (or the regional representatives) have the right to:

- Veto any plans for new machines, materials, or work processes for health and safety reasons.
- Decide how to spend the company health and safety budget which is usually negotiated through local bargaining.
- Approve the selection and direct the work of the company doctor, nurse, safety engineer, or industrial hygienist.
- Review all corporate medical records, monitoring results, and other information on hazards.
- Shut down dangerous operations until hazards can be corrected.
- Decide how much time (all company paid) they need to do their safety committee work.

The role of the Swedish government is primarily to set health and safety standards and to make inspections when safety committees are unable to resolve problems or do not have the necessary technical expertise. The National Board of Occupational Safety and Health, the Swedish counterpart to the U.S. Occupational Safety and Health Administration (OSHA), has one inspector for every 400 workplaces (compared to OSHA's one for more than 3,000). Swedish inspectors can levy fines and have health and safety changes made, at the employer's expense, if the company has failed to comply with a previous directive.

In West Germany and Austria, the delegation observed a health and safety system based on the "works council"—committees which represent workers on all types of grievances. These committees do not have any independent powers like those in Sweden, and are not necessarily an arm of the local union. German and Austrian workers cannot be required to join their union (and in many industries a majority does not), yet the works council is elected by *all* employees at each operation. Training for works council members is conducted in classroom format, dealing mainly with economic issues rather than health and safety.

In both West Germany and Austria, most responsibility for standard setting, inspections, training, and workers' compensation is borne by insurance institutes in each industry. The institutes are run jointly by management and labor and financed by premiums based on industry and company safety records. Those in the wood products industry do not conduct or sponsor any significant amount of health and safety research, leaving that to employers and equipment manufacturers.

After returning home, the delegation persuaded its international union convention to authorize an experimental project in which the union will attempt to set up Swedish-style research committees. The union is conducting a health and safety survey of its members who use chain saws, and will then ask logging companies, saw manufacturers, and government officials to help improve saw design. The union is also asking the Consumer Product Safety Commission to consider the views of professional chain saw users before approving new safety standards. Union officials say they hope to gradually adapt other aspects of the Swedish system, such as company-paid research funds and paid training for safety committee members, through future regional and local contract negotiations. □

—FOOTNOTE—

<sup>1</sup> The trip was sponsored by the German Marshall Fund of the United States.

## Educational leave in Canada: a look at individual programs

ISAIAH A. LITVAK AND CHRISTOPHER J. MAULE

Canadian interest in educational leave has increased in recent years. This can be partially attributed to Canada's membership in the Organization for Economic Cooperation and Development (OECD) and the International Labor Organization (ILO), which have sponsored conferences and studies on the subject of educational leave.<sup>1</sup> One of the results of this interest and participation was the establishment of a Federal Government "Industrial Inquiry Commission" in 1978.<sup>2</sup>

The identification and evaluation of the issues involved in educational leave are still in a fairly primitive state, and to shed some light on the subject, particularly from the standpoint of policy implications, we examined the leave policies and practices of 13 employers,<sup>3</sup> including Canadian and foreign-owned firms. The sample is biased toward organizations with some known commitment to education but still reflects differences in size, nationality of ownership, industry representation, technology, and organizational mission.

Five of the organizations are in the public sector and employ from 500 to 80,000 unionized workers. The remaining eight organizations are manufacturing and ser-

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vice firms in the private sector, employing from 65 to 20,000 persons. Five of the companies are essentially nonunionized.

### Case method used

We used the case method to collect data in 1978, structuring our interviews along the lines of a recent OECD study and modified to reflect Canadian circumstances.<sup>4</sup>

We found it difficult to obtain information of a consistent nature within and between the organizations. Only one of the private organizations had stated educational leave policies; the policies of the rest were ad hoc or negotiable. There was an absence of good documentation on the extent, nature, and costs of the educational leave and little effort to evaluate its impact.

Interviews were conducted with managers, employees, union representatives, educational officials, consultants, government officials, and professionals in an attempt to become familiar with the details of the policies and practices of each organization.

We defined educational leave to be leave taken in excess of 3 months, which is spent during regular working hours for full-time studies, directly or indirectly related to employment.<sup>5</sup>

All five public sector organizations have educational leave programs, four of which are formally structured. In all instances, the form of financing ranges from full to partial to none. While at first glance the educational leave programs appear to be well established, they are infrequently used except by the Federal Government. Leave recipients are primarily managers or technocrats, or those being groomed for these positions. With one exception, the recipients attend institutions of higher learning. Information on leave provisions is readily available and communicated within 4 of the 5 public sector organizations.

The situation is dramatically different in the private sector. Four of the companies provide no opportunity for educational leave, while it is only negotiable in the remaining four. The few participants to date have been largely managerial and salaried employees. Information about leave opportunities is quite selective, and tends to be communicated to the more ambitious management employees. In the case of the small firms, none of which is foreign-owned, educational leave is not available.

### Employers' perspective

We will discuss public and private sector employers separately because they tend to have different attitudes.

Public sector employers tended to favor the introduction of educational leave because of the size of their organizations, and because employees were not likely to leave the organization, although they might transfer from one department to another. Secondly, because

public sector organizations are not evaluated in terms of profit performance, it is easier to administer a policy which is difficult to evaluate and which would be questioned much more closely in a profit-oriented organization. Thirdly, public sector organizations feel that educational leave provides some skills they could not otherwise acquire. Educational leave is here viewed as a technique for manpower planning.

In contrast to these supportive factors, the system of educational leave has been abused by using it to sideline personnel or to provide a stepping stone to early retirement. Also, in a time of fiscal restraint, educational leave is a policy that is an early victim of cost cutting, and a no-growth or slow-growth public sector employment situation means there is less pressure to acquire personnel, however well qualified.

Private sector employers are in general lukewarm to the idea of educational leave, but large companies could be persuaded of its merits if it was a way of holding on to their best employees, or providing skills which could not be otherwise purchased. Small and medium-sized firms, however, fear the individual could easily be hired away.

Private sector organizations argue against educational leave on the grounds that it would not enhance their profitability, that they can buy the skills which they require, and also cite problems of replacing employees, who are away for lengthy periods, as well as problems of re-entry into the organization at an appropriate level. Those firms which are willing to consider educational leave tend only to do so if it is leave without pay. Accountancy is an example of a profession whose members require neither pay while on educational leave nor job security if leave is taken, because they become an even more marketable item.

### Employees' viewpoint

The employee position on educational leave was articulated by union locals, union headquarters, and organizations such as the Canadian Labor Congress. In general, the union locals had less interest in promoting educational leave than did the other union components, because of a perceived difference of interest. The federation's position was more attuned to and knowledgeable of the position put forward by the ILO, as well as the educational leave situation in some European countries. Union headquarters were also familiar with the general issues that have been debated, but their interest was largely ideological, and they argued for leave for union educational purposes. Lip service might be paid to leave for social purposes, but unions were more concerned with promoting understanding of their union among the existing members. In industries such as printing, technological change is already resulting in the alteration of union membership, and educational leave could be seen

by a union as a further disturbing factor.

At the local level, which is where the cases concentrated, educational leave received little consideration for a number of reasons. In a period of prosperity, educational leave is viewed by union locals as one of a number of fringe benefits that are negotiable. In times of recession, educational leave was of very low priority or was not even considered. The concern of locals tends to be concentrated on provisions for training and retraining in the face of recession and technological change. Educational leave is not considered an issue if the union member does not have a job, so locals concentrate on immediate employment, hourly rates, and training so that the member remains employed. In this regard, both the firm and the local are in agreement in stressing the need for training facilities and programs.

The professions (doctors, nurses, accountants) appear as a special group because of the type of service that they sell, and because they involve an element of self-regulation. While the professions tend to restrict entry through certification requirements, which often involve extensive education in colleges and universities, their concern with certifying existing practitioners falls off once the individual has qualified for the profession. All three professions included in the case studies made statements about the type of study which an individual should undertake to ensure career development, and maintain the necessary professional qualifications. However, little attempt is made to enforce provisions for continuing education.

The case studies revealed that there were different attitudes toward educational leave by the three profes-

sions. The accountants received leave without pay; the doctors who were attached to a university received a sabbatical leave with partial pay, and those employed by the hospital could negotiate a similar arrangement; the nurses seldom received leave with pay, but did have access to external funding sources. The association of nurses took the view that it was the individual's responsibility to remain qualified. In sum, the attitude of professionals to educational leave would tend to vary among professions according to the role of the association, the contractual conditions of work, and the form in which payment is received.

### Government's position

As a policymaker, the Federal Government has an extensive manpower policy program which is oriented toward training the currently unemployed, or those threatened with unemployment. This policy tends to be focused on job-specific training to expand employment and as such coincides with the attitudes of private firms and union locals.

A lesser concern to date with educational leave has probably been because of the extensive government financing of colleges and universities, which has resulted in a higher proportion of the work force in Canada attending such institutions than has been the case in European countries. As a pace setter, governments have introduced affirmative action, both in terms of their own and other organizations' hiring procedures. However, to date, affirmative action has been enforced through moral suasion and guidelines, rather than through enforceable rules. □

### —FOOTNOTES—

<sup>1</sup> *Developments in Paid Educational Leave of Absence* (Paris, Organization for Economic Cooperation and Development, 1976); *Alternation Between Work and Education* (Paris, Organization for Economic Cooperation and Development, 1978); "Paid Educational Leave," Report IV, 59th ILO Conference (Geneva, International Labor Organization, June 1974).

<sup>2</sup> This commission was established "pursuant to section 198 of The Canada Labour Code," House of Commons, Ottawa, May 31, 1978.

<sup>3</sup> I. A. Litvak and C. J. Maule, *Educational Leave Policies and Prac-*

*tices of Select Organizations in Canada*, background paper prepared for the Commission of Inquiry on Educational Leave and Productivity, (Ottawa, Labour Canada, March 1979).

<sup>4</sup> *Alternation Between Work and Education* (Paris, Organization for Economic Cooperation and Development, 1978).

<sup>5</sup> Educational leave excludes courses of less than 3 months (or one semester) duration, evening courses, university cooperative plans, and training and apprenticeship plans.

# Significant Decisions In Labor Cases



## To the victor, what spoils?

In a recent 6 to 3 decision, the Supreme Court curbed the patronage practices of local governments by ruling that the First and Fourteenth Amendments prohibit the dismissal of patronage appointees solely on the basis of their political beliefs, unless the hiring authority can prove party affiliation a necessary condition for the effective execution of the appointee's office. (*Branti v. Finkel*.<sup>1</sup>) This decision further expanded the principles set forth in *Elrod v. Burns*<sup>2</sup> by divorcing questions of party affiliation from the confidentiality or policymaking status of a public office.

Two assistant public defenders for Rockland County, N.Y., appointed under the 1972-76 Republican administration, sought to prevent their dismissal by the newly selected Democratic public defender, Peter Branti. Asserting that the announced dismissals stemmed solely from the attorneys' Republican affiliation rather than unsatisfactory job performance, a Federal district court, upheld by the Second Circuit, enjoined Branti from firing the pair.

*Branti* provided the Court with an interesting opportunity to further delineate and clarify the constitutional status of political patronage. In *Elrod*, the Court held unconstitutional a requirement that certain patronage employees change party allegiance as a condition of continued employment. The *Branti* case took the dilemma a step further. Have an employee's rights been violated if he has not been coerced into switching parties, but has been discharged simply because he lacks the sponsorship of the party in power? Still another issue was raised: even if party sponsorship is an unconstitutional condition of employment for *Elrod*-type employees (whose duties were primarily clerical and janitorial), is party affiliation an acceptable condition for a position that may involve policy decisions such as assistant public defender?

In a majority decision written by Justice John Paul Stevens, the Court ruled that the attempted Branti dismissals, even though they did not involve explicit coercion nevertheless would infringe on the employees' First

Amendment rights. Expanding on *Elrod*, Stevens wrote, "If the First Amendment protects a public employee from discharge based on what he has said, it must also protect him from discharge based on what he believes . . . his beliefs cannot be the sole basis for depriving him of continued public employment." Stevens dismissed the assertion that an employee's rights are violated only if he is forced to change his party affiliation, arguing "such an interpretation would surely emasculate the principles set forth in *Elrod* . . . it would not eliminate the coercion of belief that necessarily flows from the knowledge that one must have a sponsor in the dominant party in order to retain one's job." Stevens concluded, ". . . there is no requirement that dismissed employees prove that they, or other employees have been coerced into changing either actually or ostensibly, their party allegiance" for them to gain reinstatement; it suffices to prove that such dismissals derived solely from party affiliation.

Less straightforward was the Court's reasoning regarding the constitutionality of requirements of party sponsorship for positions deemed policymaking or confidential. The Court conceded that party affiliation may be an acceptable, even necessary condition for some types of government employment, but countered that it is not relevant to every policymaking or confidential post. "In sum, the ultimate inquiry is not whether the label 'policymaker' or 'confidential' fits a particular position; rather the question is whether a hiring authority can demonstrate that party affiliation is an appropriate requirement for the effective performance of the public office involved." Moving from the broader issue to the circumstances of the case, the Court reasoned the position of public defender cannot properly be conditioned on party affiliation, because the policymaking functions of the position relate to the problems of individual clients rather than partisan political interests. In upholding the Second Circuit, the majority concluded any effort to link office tenure to party affiliation would undermine the integrity of the assistant public defender.

The imprecision of the Court's new standard creates potential ambiguity in many public employment decisions. The Court did not indicate the criteria to be used for determining which positions may remain under patronage, nor how a hiring authority could demonstrate the need for a requirement of party affiliation. Particu-

"Significant Decisions in Labor Cases" is written by Gregory J. Mounts of the *Monthly Labor Review* staff. Kate Farrell of the University of Notre Dame, an intern with the *Review*, wrote the summary of *Branti v. Finkel*.

larly noteworthy are the implications for the selection practices of government authorities. Quoting the opinion of the Second Circuit,<sup>3</sup> the Court stated "it is difficult to formulate any justification for tying either the selection or retention of an assistant public defender to his party affiliation." This line of reasoning suggests that considerations of party affiliation may be unconstitutional in the selection, as well as the retention, of certain government employees. Such a holding would raise interesting questions in the law enforcement field where, as Justice Lewis Powell noted in his dissenting opinion, party affiliation frequently plays an important role in the selection of prosecutors at all levels. Although the Court specifically excluded prosecutors from its *Branti* deliberations, Powell asserted that questions would arise as to how, under the Court's standard, a prosecutor's duties are any more related to "partisan" interests than those of an assistant public defender. Consequently, *Branti*, and any subsequent rulings that may arise from it, could have a significant impact on existing law enforcement machinery.

Powell's dissent, in which Justices William Rehnquist and Potter Stewart (in part) concurred, characterized the majority decision as an "exercise in judicial law-making" which brings under judicial scrutiny government hiring practices more properly left to legislative and executive discretion. Powell faulted the majority for its "broad, new standard" of determining the scope of patronage, implying it would lead to confusion and uncertainty. He also criticized the Court's interpretation of the First Amendment, claiming the constitutionality of patronage hirings and firings depends upon the governmental interests served by patronage. Equally, concluded Powell, the Court's decision denigrates the strength and accountability of the political parties and impairs the right of the local voters to structure their government.

### Missouri compromised on sex standard

Missouri's workers' compensation law requires widowers seeking death benefits based on their wives' former earnings to prove that they were dependent on those earnings; widows seeking death benefits do not have to prove dependency. An 8-to-1 majority of the U.S. Supreme Court recently struck down this unequal treatment as unconstitutional sex discrimination, extending to State benefit laws the equal protection analysis used to void similar sex-based provisions for the distribution of Federal social security benefits. (*Wengler v. Druggists Mutual Ins. Co.*<sup>4</sup>)

The earlier Supreme Court cases that foreshadowed the demise of the Missouri provision involved equal protection challenges to a pair of Social Security Act provisions. Both provisions assumed that men were

the primary wage earners and their spouses, regardless of employment status, were dependent on them. As a result, survivors' benefits available to widows were either unavailable to similarly situated widowers<sup>5</sup> or conditioned on a showing of dependency.<sup>6</sup> In both cases, the Court ruled that the law deprived working women the protection for their families which men receive as a result of their employment, in violation of equal protection component of the Fifth Amendment. Justice John Paul Stevens wrote that such sex-based benefit provisions discriminate only against men who survive their employed wives. The Court acknowledged that both forms of discrimination resulted from the Missouri workers' compensation law.

The State had the burden of justifying the law's gender-based discrimination by showing that it served important governmental objectives and that the means employed were related to the achievement of those objectives. As the Federal Government had done under similar circumstances, the State failed. Missouri's claim of administrative convenience as justification for its 1925 legislative formula (presuming dependency for widows and not for widowers) was insufficient to meet the "heightened scrutiny" standard the Court applied under the equal protection clause of the Fourteenth Amendment to the Constitution. One factor influencing the Court's decision, wrote Justice Byron White for the majority, was that the State had failed to present any evidence as to what additional costs the State or Missouri employers may incur if men and women were treated equally under the law.

Despite its power to prescribe a remedy for the constitutional defect in the Missouri law, the Court left this task for the Missouri judiciary. The question of whether to extend the presumption of dependence to widowers or to eliminate it for widows (and investigate each claim) involves potentially great economic burdens for the State. White concluded "Because State legislation is at issue, and because a remedial outcome consonant with the State legislature's overall purpose is preferable, we believe that State judges are better positioned to choose an appropriate method of remedying the constitutional violation."

### Title VII overrides class standards

In 1972, Congress amended Title VII of the 1964 Civil Rights Act to permit the Equal Employment Opportunity Commission to file civil suits on behalf of alleged victims of discrimination. Individuals who were represented by the commission retained their right to file private suits under certain circumstances. To represent a "class" of affected persons in such a private civil suit, certain Federal procedural requirements must be satisfied: the class must be sufficiently numerous and all

members must share important interests. The procedural rule acts to limit the number of private class actions brought in Federal court. But did Congress intend for EEOC suits also to be constrained by such a rule? Two appeals courts split on this question, but the Supreme Court recently agreed with the Ninth Circuit that this rule does not apply to EEOC suits filed on behalf of a class. A 5-to-4 majority ruled that the 1972 amendments to Title VII plainly authorized such EEOC suits, making the application of standard procedural rules inappropriate. (*General Telephone Co.*<sup>7</sup>)

EEOC brought suit against the General Telephone Co. of the Northwest, Inc. and International Brotherhood of Electrical Workers, Local 89 based on employee allegations that both had engaged in unlawful sex discrimination in the form of restrictions on maternity leave, access to craft jobs, and promotion to managerial positions. The agency sought injunctive relief and backpay for the women involved. The company, but not the union, sought to block EEOC's ability to sue on behalf of all allegedly affected women, claiming that the agency had not established a legitimate class action based on the requirements of Rule 23 of the Federal Rules of Civil Procedure. Despite the Fifth Circuit's contrary view, a Federal Magistrate, district court, and appeals court each reasoned that EEOC was not constrained by standard procedural restrictions on class actions.

General Telephone sought application of Rule 23 because one feature of that procedural provision is that a judgment in subsequent class action suits is binding upon all certified members of the class. This provision clearly prevents individual class members who may be unsatisfied with a judgment from seeking an additional award. No similar limitation exists for alleged discrimination victims under Title VII, and the company feared additional or supplemental claims.

Although it recognized that these are legitimate concerns, the Supreme Court refused to contradict what it found to be clear statutory expression providing EEOC the right to enforce Title VII. Writing for the Court, Justice Byron White found that the purpose of the 1972 amendments was to "implement the public interest" as well as to secure more effective enforcement of Title VII. EEOC's pre-1972 role was limited to "informal methods of conference, conciliation, and persuasion." According to White, EEOC's new authority was intended to supplement, not replace, private action. This suggests that EEOC's enforcement suits should not be considered representative actions subject to Rule 23, he wrote.

White went on to note the range of differences between Title VII's enforcement requirements and those permissible under Rule 23. The procedural rule imposes prerequisites of numerosity, commonality, typicality,

and adequacy of representation. As pointed out by White, Title VII covers all employers and unions with at least 15 members; this would fall short of the number that has been required for class action suits in many cases.

Appeals courts have ruled that the EEOC is not limited to the charges brought by the workers represented in its suits; the typicality requirement of Rule 23, however, limits charges to those fairly encompassed by the named plaintiffs. Finally, Rule 23's adequate representation standard often prevents class certification when a conflict of interest occurs between the named plaintiff and the putative class. As White noted, a conflict between employees and applicants, as members of a single class, may easily occur over benefits or seniority in employment discrimination litigation.

Although permitting the EEOC to bring virtually unrestricted class actions in Federal courts, the Supreme Court issued some advice to the Federal judiciary in an attempt to overcome the equity concerns raised by General Telephone. White wrote that Federal courts should play an active role in deciding whether to permit workers covered by an EEOC suit (or award) to file private suits. Specifically, he wrote that courts should act to prevent an undue hardship for the defendant employer or union (for example, in the form of double recovery by an individual). Where EEOC has prevailed in its action, White advised, "the court may reasonably require any individual who claims under its judgment to relinquish his right to bring a separate private action." He also suggested that a similar requirement could be part of an EEOC-negotiated settlement (consent award). □

— FOOTNOTES —

<sup>1</sup> *Branti v. Finkel*, 48 U.S.L.W. 4331 (U.S., Mar. 31, 1980).

<sup>2</sup> *Elrod v. Burns*, 427 U.S. 347 (1976), held that the newly elected Democratic sheriff of Cook County, Ill. had violated the rights of four noncivil service employees by firing them for refusing membership in the Democratic Party; see *Monthly Labor Review*, October 1976, pp. 46-47.

<sup>3</sup> 457 F. Supp.; at 1293, n. 13.

<sup>4</sup> *Wengler v. Druggists Mutual Ins. Co.*, 48 U.S.L.W. 4459 (U.S., Apr. 22, 1980).

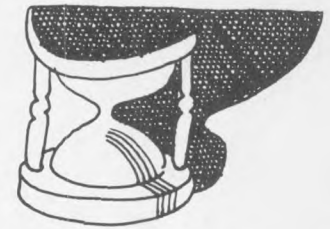
<sup>5</sup> *Weinberger v. Wisenfield*, 420 U.S. 636 (1975), striking down a provision that granted survivors' benefits based on the earnings of a deceased husband and father covered by the Act both to his widow and to the couple's minor children in her care, but that granted benefits based on the earnings of a covered deceased wife and mother only to the minor children and not to the widower.

<sup>6</sup> *Califano v. Goldfarb*, 430 U.S. 199 (1977), striking down a provision providing survivors' benefits to a widow regardless of dependency, but providing the same benefits to a widower only if he had been receiving at least half of his support from his deceased wife; see *Monthly Labor Review*, May 1977, pp. 51-52.

<sup>7</sup> *General Telephone Co. of the Northwest, Inc. v. EEOC*, 48 U.S.L.W. 4513 (U.S., May 12, 1980).



# Major Agreements Expiring Next Month



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

Employer and location	Industry	Union <sup>1</sup>	Number of workers
Anchor Hocking Corp. (Lancaster, Ohio)	Stone, clay, and glass products	Glass Workers	3,500
Appleton Electric Co. (Chicago, Ill.)	Electrical products	Electrical Workers (IBEW)	1,200
Atlantic Steel Co. (Atlanta, Ga.)	Primary metals	Steelworkers	1,100
Brockway Glass Co., Inc. (Clarksburg, West Va.)	Stone, clay, and glass products	Glass Workers	1,000
Champion International Corp., Champion Papers Division (Hamilton, Ohio)	Paper	Paperworkers	1,600
Clark Equipment Co. (Lima, Ohio)	Machinery	Auto Workers (Ind.)	1,300
Clothing Manufacturers Association of the United States of America (Interstate)	Apparel	Clothing and Textile Workers	80,000
Daitch Crystal Dairies, Inc. (New York, N.Y.)	Retail trade	Food and Commercial Workers	1,150
Delaval Turbine, Inc. (Trenton, N.J.)	Machinery	Steelworkers	1,200
Dresser Industries, Inc. (Orleans, N.Y.)	Machinery	Steelworkers	1,600
Envirodyne Co., Wisconsin Steel Division (Chicago, Ill.)	Primary metals	Progressive Steel Workers Union (Ind.)	3,350
Federal Paper Board Co. (Columbus, Ohio)	Stone, clay, and glass products	Glass Workers	1,500
Federal Paper Board Co. Inc. (Riegelwood, N.C.)	Paper	Paperworkers	1,200
Food Fair Stores, Inc. (Interstate)	Retail trade	Food and Commercial Workers	1,850
General American Transportation Corp. (Interstate)	Transportation equipment	Steelworkers	2,100
Giant Food, Inc. (Interstate)	Retail trade	Food and Commercial Workers	1,000
Great Atlantic and Pacific Tea Co., Inc., 2 Agreements (Interstate)	Retail trade	Food and Commercial Workers	3,050
Great Lakes Dredge & Dock Cos. (Interstate) <sup>2</sup>	Construction	Operating Engineers (IUOE)	2,200
Hercules, Inc. (Radford, Va.)	Chemicals	Oil, Chemical and Atomic Workers	1,700
Interco, Inc. (Arkansas)	Leather	Shoe Workers	3,950
Kohler Co. (Kohler, Wis.)	Fabricated metal products	Auto Workers	3,600
Laclede Steel Co. (Alton, Ill.)	Primary metals	Steelworkers	2,500
League of New York Theatres, Inc. (Interstate)	Amusements	Actors	3,300
Lufkin Industries, Inc. (Lufkin, Tex.)	Machinery	Boilermakers; Machinists and Molders	1,700
Massachusetts Leather Manufacturers Association (Massachusetts)	Leather	Leather Workers	1,450
Mens Clothing Industry (California) <sup>2</sup>	Apparel	Clothing and Textile Workers	2,000
Milk Dealers (Interstate) <sup>2</sup>	Food products	Firemen and Oilers; and Teamsters (Ind.)	2,500
Montgomery Ward & Co., Inc., Catalog House (Chicago, Ill.)	Retail trade	Teamsters (Ind.)	1,100
National Steel Corp., Granite City Steel Division (Illinois)	Primary metals	Chemical Workers	1,000
New Orleans Steamship Association, 2 Agreements (Interstate)	Water transportation	Longshoremen's Association	7,000
National Industries, Inc., Doehler-Jarvis Division (Interstate)	Primary metals	Auto Workers (Ind.)	2,600
North Central Airlines, Clerical (Interstate) <sup>1</sup>	Air transportation	Air Line Pilots	1,700
New York Druggists Association (New Jersey and New York)	Retail trade	Food and Commercial Workers	2,500
Owens-Illinois, Inc. (Wisconsin)	Stone, clay, and glass products	Flint Glass Workers	1,150
Penn-Dixie Industries, Inc., Penn-Dixie Steel Corp. (Wisconsin)	Primary metals	Steelworkers	1,450
Retail Meat Cutters, 2 Agreements (Illinois) <sup>2</sup>	Retail trade	Food and Commercial Workers	5,400
Rheem Manufacturing Co. (Arkansas)	Transportation equipment	Steelworkers	1,600
Rockwell International Corp. (Interstate)	Transportation equipment	Steelworkers	1,450
Savannah Maritime Association (Savannah, Ga.)	Water transportation	Longshoremen's Association	1,100

See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

Employer and location	Industry	Union <sup>1</sup>	Number of workers
Security Agencies, Uptown Agreement (San Francisco, Calif.) <sup>2</sup>	Services	International Union of Security Officers (Ind.)	3,300
Sharon Steel Corp., Steel Brainard-Dearborn Division (Interstate)	Primary metals	Steelworkers	3,400
Star-Kist Foods, Inc. (California)	Food products	Seafarers	2,400
Steamship Trade Association of Baltimore, Inc. (Baltimore, Md.)	Water transportation	Longshoremen's Association	5,000
Waldbaum, Inc. (New York, N.Y.)	Retail trade	Retail, Wholesale, and Department Store	4,500
Washington, D.C. Food Employers Labor Relations Association, 2 Agreements (Maryland, D.C., and Virginia)	Retail trade	Food and Commercial Workers	16,000
Wean United, Inc. (Interstate)	Machinery	Steelworkers	1,500
West Gulf Maritime Association, Inc. (Louisiana and Texas)	Water transportation	Longshoremen's Association	15,000
Western States Field Construction Agreement (Interstate) <sup>2</sup>	Construction	Boilermakers	3,250
Whirlpool Corp., Ft. Smith Division (Ft. Smith, Ark.)	Electrical products	Allied Industrial Workers	4,000
Zenith Radio Corp. (Springfield, Mo.)	Electrical products	Electrical Workers (IBEW)	1,650
	Government activity	Employee organization <sup>1</sup>	
Florida: Dade County Metropolitan General Classified Employees	Multidepartment	American Federation of State, County and Municipal Employees	10,000
Dade County Police Department	Public safety	Dade County Police Benevolent Association	2,200
Jacksonville Municipal Employees	Multidepartment	American Federation of State, County and Municipal Employees	3,000

<sup>1</sup> Affiliated with AFL-CIO except where noted as independent (Ind.).

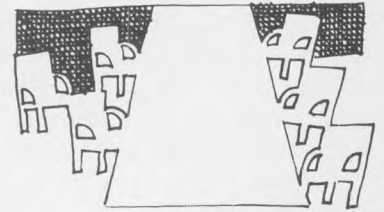
<sup>2</sup> Industry area (group of companies signing same contract).

<sup>3</sup> Information is from newspaper reports.

Erratum

The May issue of the *Monthly Labor Review*, page 33, contains the statement, "The CPI home-purchase index is compiled from data on home sales which involve mortgages insured by the Federal Housing Administration or the Veterans Administration." This statement is partially incorrect. House price data from FHA-insured mortgages are included in the CPI home-purchase index; however, comparable data from VA-guaranteed mortgages are not used for the CPI home-purchase index. The only data from VA-guaranteed mortgages used in the CPI are interest rate information, which is combined with comparable interest rates data from FHA-and conventionally insured mortgages in the computation of the mortgage interest cost component of the CPI.

# Developments in Industrial Relations



## Three aluminum companies settle

Contracts negotiated by the Steelworkers and the Aluminum Workers unions with three major aluminum companies were generally viewed as being more costly than the Steelworkers' April settlement with major basic steel producers. The aluminum settlements involved 30,000 employees of the Aluminum Company of America, Kaiser Aluminum and Chemical Co., and Reynolds Metals Co. and 19,000 Alcoa and Reynolds employees represented by the Aluminum Workers. Steelworkers' President Lloyd McBride said that the new aluminum contracts will narrow the gap between average hourly earnings in the two industries. McBride said that after the final pay adjustment in the aluminum contracts, which expire on May 31, 1983, pay rates will range from \$12.73 to more than \$16 an hour and average about \$14.10. These estimates were based on the union's assumption that the Consumer Price Index, which triggers wage escalator adjustments for the workers, will rise at an annual rate of 11 percent.

The Council on Wage and Price Stability, which based its escalator calculations on the 7.5-percent CPI increase assumption specified in the administration's voluntary anti-inflation program, approved the aluminum accords. An official said the aluminum agreements provided for increases in compensation near the mid-point of the permitted 7.5- to 9.5-percent annual rate of increase.

The major differences between the settlements in the two industries centered on the wage escalator clause. In aluminum, workers received a 31-cent quarterly escalator adjustment on June 2, 1980, and, beginning with the third contract year, the formula will be revised to provide 1 cent an hour adjustments for each 0.26 point movement in the Consumer Price Index for Urban Wage Earners and Clerical Workers (1967=100). In steel, the Steelworkers gave up a 33-cent escalator adjustment scheduled for March 1980 to help defray the cost of pension improvements for current retirees and the union agreed to continue for the full contract term the 1 cent for 0.3 point formula that will also continue to apply during the first two years of the aluminum ac-

cords. (See *Monthly Labor Review*, June 1980, pp. 55-56 for terms of the steel settlement.) An unusual feature of the new escalator formula in aluminum is that the resulting increase in money will be paid in two forms—all of the increase that would have been generated by continuation of the 1 cent for each 0.3-point increase in CPI formula will be paid in the form of flat general increases to all employees and any additional amount will be used to increase the increment between job grades. The Steelworkers said that the purpose was to minimize the compression of pay rates that would otherwise occur if the entire amount of each escalator adjustment was paid in the form of a general increase.

The aluminum contracts provided for "set" general wage increases of 25 cents an hour on June 2, 1980, 20 cents on June 1, 1981, and 15 cents on June 7, 1982, matching those in steel. However, the increases in increments between job grades differed. The increment increases also differed among the aluminum companies, as part of a plan to attain near uniformity of pay rate structures among the three companies. The plan also provided for special pay adjustments for some employees of each companies to attain uniformity within that company.

The Steelworkers union, which had agreed to lesser settlement terms to avert the closing of some steel fabricating plants, also agreed to lesser terms for five "noncompetitive" aluminum plants. At these plants, employees will receive annual escalator adjustments, each limited to 35 cents an hour; a 10-cent general wage increase in each year (plus increment increases), and 50 percent of the improvements in pensions and sickness and accident benefits. All other terms match those for the other plants. The five are Alcoa's Richmond, Ind., plant and its Mantahola Power and Light Co. in Franklin, N.C.; Kaiser's Dolton, Ill., and Toledo, Ohio, plants; and Reynolds' Torrance, Calif., plant.

For present retirees, the pension rate was increased to \$12.50 a month for each year of credited service for those who retired prior to June 1, 1971; to \$13.25 for those who retired between June 1, 1971 and January 31, 1974; to \$15.10-\$19.50 (varying according to pre-retirement job grade) for those who retired between February 1, 1974 and May 31, 1977; and to \$15.75-\$20.25 for those who retired between June 1, 1977 and May 31, 1980. The new rates will be attained in two equal steps, with each increase not to exceed a total of \$125 a

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

month. Each increase is also subject to a minimum of \$12.50 a month (\$25 for those who retired prior to February 1, 1974). Pension rates for employees retiring during the agreement term will be increased by \$2 on January 1 of 1981 and 1982, which will raise the range of rates to \$18.25–\$22.25 a month for each year of credited service.

Under a new paid personal leave plan, employees will receive six casual days off during the contract term. To partly offset the cost increase, United Nation's Day was dropped as a paid holiday in each year.

The maximum limit on Supplemental Unemployment Benefits for employees with less than 10 years service was increased by \$25 a week in each year, bringing it to \$260. There is no limit for longer-service employees. The maximum level of the fund was increased to 23 cents (from 18) per hour worked in the preceding 12 months and the employer's contribution rate was increased to 14.5 cents per hour worked until maximum funding is attained and to 5 cents until 125 percent of maximum funding is reached. Under the prior contracts, the rates were 12.5 and 2 cents.

Other improvements included \$25,000 life insurance coverage (formerly \$10,000); \$235 to \$303 a week sickness and accident benefits (formerly \$168 to \$230); 365 days convalescent nursing home coverage; 100 visits a year by nurses and technicians, plus coverage of appliances and supplies, for persons confined to their own homes; \$100,000 major medical coverage (formerly \$50,000); and increased vision and dental care benefits.

In the noneconomic area, the parties agreed to establish a joint committee to develop methods for solving local problems of mutual concern, mentioning the formation of plant level bodies as a possible approach.

Bargaining was continuing with other aluminum companies for 14,000 workers represented by the unions.

### **Lumber workers' contract sets industry pattern**

More than 35,000 loggers, sawmill, and plywood plant workers in the Pacific Northwest were covered by a settlement between 10 major forest products companies and the Woodworkers union and the Lumber, Production and Industrial Workers union, a division of the Carpenters union. The companies compose the Western States Wood Products Employers Association, which was formed prior to the start of the talks; previously, negotiations with the unions were conducted on a company-by-company basis. The 3-year accord was expected to set a pattern for 30,000 employees of member companies of the Timber Operators Council (another large employer association) and hundreds of independent companies.

Settlement terms included an 80-cent-an-hour wage increase on June 1, 1980, 75 cents on June 1, 1981, and

70 cents on June 1, 1982. Employees paid on a piecework basis receive equivalent increases. (According to a union official, pay averaged between \$8.30 and \$8.50 an hour under the prior contracts.) A pool equal to \$491.70 an hour was established for special pay adjustments to skilled workers, with the allocation of the money to be determined by a union-management committee. Shift differentials were increased by a total of 9 cents an hour over the term and the "woods travel time" differential was increased by 10 cents per qualifying hour.

Other provisions included an additional paid holiday, beginning June 1, 1982; a 20-cent-an-hour increase in the employer payment to the health and welfare fund over the term; and a \$2.50 increase in the normal pension rate, bringing it to \$19.50 a month for each year of credited service. Employees affected by a permanent plant shutdown who are eligible for early retirement (10 years of service and age 55) were given the option of deferring the benefit payments until age 62 and avoiding the actuarial reduction that would otherwise apply. At the time of the settlement, about 20,000 forest products workers were unemployed in the region because of production cutbacks attributed to a reduction in building construction.

The companies that settled for operations in Alaska, Washington, Oregon, California, Idaho, and Montana are Boise-Cascade Corp., Champion International Co., Crown Zellerbach Corp., Georgia Pacific Corp., ITT Rayonier Inc., International Paper Co., Louisiana Pacific Corp., Publishers Paper Co., Simpson Timber Co., and Weyerhaeuser Co.

### **Furniture workers settle, end strike**

The United Furniture Workers settled with the Memphis (Tenn.) Furniture Manufacturing Co. on a 2-year contract that ended a 10-week strike and was expected to set a pattern for two furniture manufacturers the union had recently organized in the area. Three other newly-organized companies had already settled. Union president Carl Scarbrough said that the Memphis Furniture agreement provided for the retention of existing insurance and union security provision and the extension of the grievance procedure to cover piecework disputes, which he described as victories for his organization.

Hourly wages, which reportedly averaged \$3.50 to \$4 prior to the settlement, will be increased by 45 cents for skilled workers and 40 cents for other workers in two steps during each year of the contract. Other provisions for the 1,200 workers included a 10th annual paid holiday beginning in the second year; a Christmas bonus; additional holiday and vacation pay for incentive workers; paid funeral leave; and time and one-half pay after

8 hours a day, rather than 40 hours a week.

### **Flight attendants get double time for holiday work**

A 2-year agreement for 9,000 flight attendants was signed by United Airlines and the Association of Flight Attendants. It provided for general wage increases of 13 percent on April 2, 1980 (employees with at least 14 years of service will get an additional 1.7 percent), and 10 percent a year later. The escalator clause provided for cost-of-living adjustments in October of 1980 and 1981 of 30 cents a month for each 0.3-point rise in the BLS-CPI-W (1967=100) with a maximum of \$15 a month for each adjustment.

As before, employees will not be paid for holidays not worked, but for the first time, they will be paid double time for working on any of the 10 designated holidays. Vacations were liberalized by providing 30 days of time off after 11 years of service (formerly 12 years) and after 10 years beginning in the second contract year and by providing 37 days after 19 years of service (formerly 20 years) and after 17 years starting in the second year. Senior pay and buffet pay were increased to \$2 to \$2.50 (from \$1.75 to \$2.25) and \$1 to \$1.25 (from 75 cents to \$1), depending on the type of aircraft. The major medical expense maximum was increased to \$400,000 (from \$250,000) and life insurance was doubled to \$200,000. Employees' past contributions to the pension fund were refunded, and the normal retirement age was raised to age 65, from age 60.

### **Insurance Workers, Steelworkers end merger talks**

The Insurance Workers ended a year of merger negotiations with the Steelworkers when the union's General Executive Board ruled that the two unions could not reach agreement on a dues structure. The Steelworkers had insisted that the Insurance Workers approach be similar to theirs, which calls for members to pay monthly dues equal to two hours' pay. Insurance Workers President Joseph Pollack said that his unions' members, who currently pay a flat \$9.50 a month, would not accept that approach because they are paid on a commission basis and their earnings vary considerably from year to year. Both unions offered compromise proposals, without success.

After the amicable termination of talks, Pollack said that his 20,000-member organization would continue to seek a merger but to assure "maximum organizing and bargaining strength," any proposed partner must have at least a million members.

### **Panels on economic policy established**

The Carter Administration and the AFL-CIO agreed

to set up two joint panels on economic policy, one to draw up short-range antirecession plans and the other to suggest a long-range plan for the "re-industrialization" of America.

The meetings that led to the agreement were conducted in compliance with the September 1979 "national accord" between the Administration and organized labor.

The new antirecession panel was expected to prepare specific proposals for alleviating conditions for the unemployed, the poor, the elderly, and others particularly hard hit by the current economic slowdown. In the past few months, AFL-CIO President Lane Kirkland had become increasingly critical of Administration efforts in this area, contending that the poor and the needy were bearing the brunt of anti-inflation measures in violation of the principles of the national accord.

The other panel will examine and suggest remedies for long-term problems in certain industries, such as import competition and obsolete plants and equipment. An Administration official said that eventually industry officials and representatives of unions outside the AFL-CIO will be added to this panel.

### **Three studies on pensions**

A number of recent developments reflects the Nation's concern over the adequacy of workers retirement income. At the Federal Government level, a presidential panel on pensions issued an interim report suggesting that private employers be required to provide a minimum level of protection for their retirees and the Department of Labor proposed a change in its regulations concerning the types of ventures in which plan trustees are permitted to invest. Elsewhere, the AFL-CIO issued a report encouraging unions to press for a larger role in deciding how plan assets should be invested.

The 10-member President's Commission on Pension Policy noted in its report that some companies have voluntarily increased pensions for their retirees to at least partly offset the rise in living costs. While agreeing that such adjustments should be "encouraged," the commission stopped short of recommending that they be mandated, saying that "the greatest emphasis should be placed on expanding pension coverage rather than providing full inflation protection to some (retirees) at this time."

The commission suggested that the definition of retirement may need to be changed. It affirmed the right of every American to normal retirement at a stipulated age, but encouraged work opportunities for older workers. Explaining that people should expect retirement to constitute a constant proportion of their adult lives, the commission suggested that the normal retirement age be raised at some time in the future for people born after 1945.

The final report, expected in February 1981, may differ from the interim findings because of questions raised by some of the commission's members and the outcome of staff studies on certain issues. Members from organized labor, business, banking, State legislatures, and academia were represented on the commission.

In its study, the Department of Labor estimated that the value of private pension plans in the United States will reach \$3,000 billion in 1995, compared with \$211 billion in 1975 and more than \$300 billion in 1980. Much of this growth will result from inflation—in terms of constant 1975 dollars, the value of pension assets will total only about \$900 billion in 1995. Nevertheless, the growth will have “an incredible impact” on investment markets, increasing the already complex problems of regulating pension funds, according to Ian D. Lanoff, administrator of pension and welfare benefit programs. Therefore, new decisions will have to be made on who will control the funds and how best to use them, including consideration of the social usefulness of pension investments.

The proposed new regulation announced by the Labor Department will make it easier for private employee-benefit plans to invest in venture-capital firms, which are usually partnerships that invest in fledgling companies, giving them financial help and management advice. The new regulation will become official after a 60-day period, subject to possible changes based on comments the Department receives from interested parties.

Last year, the Labor Department had proposed to treat benefit plan investments in venture capital firms as “plan assets,” which would have meant that trustees would be liable for the venture capital firms' activities, including their unprofitable investments. This drew critical responses from venture capital firms, which claimed that the regulation would dry up their chief source of capital. The new regulation will treat investments in

venture-capital firms in the same manner as investments in ordinary operating companies. However, venture-capital firms will still have to meet some special requirements—they will only be permitted to invest in companies in which they have a management role and they will have to provide pension fund trustees with annual audited financial statements.

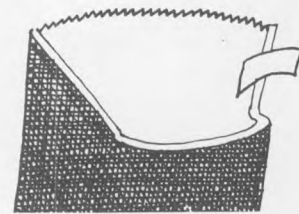
In its benefit plan study, the AFL-CIO's Industrial Union Department found that workers' pension funds are sometimes being used to create overseas jobs and to finance nonunion companies. Jacob Sheinkman, secretary-treasurer of the Clothing and Textile Workers and head of the seven-member study committee, said, “Labor loses twice from current pension fund management. In the short run, benefits may be threatened by inadequate rate of return and in the long run, our own money works to take away our jobs and diminish our overall economic well being.”

According to project director Richard Prosten, the average pension fund had a 4.3-percent a year rate of return over the last 10 years, compared with 5.9 percent for Standard and Poor's index of 500 stocks and, “in many instances, participants would have been better off if their funds had been invested in passbook savings accounts, rather than in equity stock.”

The committee urged unions to seek joint administration of benefit funds through the collective bargaining process or through a commitment from the employer that the union may participate in important decisions affecting the funding, including selection of trustees and investment managers. If these efforts prove unsuccessful, the final step would be to press for legislation guaranteeing workers a voice in fund operations.

The report was based on an examination of the investment practices of 10 “representative large industrial companies” and 192 collectively bargained or public sector benefit plans. The committee obtained 545 plans and analyzed 35 investment portfolios. □

# Book Reviews



## Divergent views on bargaining

*Collective Bargaining: New Dimensions in Labor Relations.* Edited by Franklin J. Havelick. Boulder, Colo., Westview Press, 1979. 183 pp. \$20.

Long ago, I read an article describing personality types which create problems in collective bargaining. Now we have a book, edited by Franklin J. Havelick, in which are collected the views of labor relations leaders who help rather than hinder the resolution of labor problems by collective bargaining innovations.

The book stems from 2 years of discussions at the Institute of Collective Bargaining and Group Relations of New York City, a program supported by the Ford Foundation and sponsored by the New York State School of Industrial and Labor Relations, Cornell University. It is divided into 10 chapters with the authors of each chapter discussing collective bargaining as it is related to particular issues: economics, politics, international trade, productivity, inflation, employment policy, and the quality of working life.

Havelick's thesis is that social, political, and economic pressures affect the collective bargaining process resulting in a new and constantly changing system of collective bargaining. The book is an examination of this system, one whose working varies with the different experts depending on their experiences and their positions in the labor-management community.

Havelick presents the views of Wayne L. Horvitz (Federal Mediation and Conciliation Service) contrasted with the views of William W. Winpisinger (International Association of Machinists); Theodore W. Kheel (Institute of Collective Bargaining) and Glenn E. Watts (Communication Workers of America); Benjamin F. Bailar (former U.S. Postmaster General) and Albert Shanker (American Federation of Teachers); Sol C. Chaikin (International Ladies' Garment Workers' Union) and Malcolm L. Denise (former vice president for Labor Relations, Ford Motor Co.); and Ernest G. Green (Assistant U.S. Secretary of Labor) and Jerome M. Rosow (Work in America Institute). In these discussions, the authors explain how collective bargaining is helping solve the problems they face and what they expect of it in the future.

These experts are paired to provide contrasting views on particular issues. For example, Chaikin and Denise

tell how circumstances have shaped their ideas about collective bargaining. Each sees it differently, of course, since one represents employees of thousands of small labor-intensive employers who compete with employers of cheap labor in Mexico, Hong Kong, Taiwan, South Korea, and Thailand. The other speaks for a major firm which operates plants in countries throughout the world as well as in the United States.

It is instructive, for example, to see how sharply divergent labor leaders can be in their attitudes toward the role of the Federal Government regarding inflation. According to Watts:

If the government is to play a constructive economic role, it must pursue a demonstrably sound Keynesian program of tax reductions, economic subsidies, and deficit spending to achieve economic growth. . . . Labor will also seek public benefits that substitute for wage increases and can have significant anti-inflationary effects. . . . A growing emphasis on political remedies to economic problems is one of the larger, long-term effects of inflation on labor relations.

He also proposes increased Federal expenditures on housing and health care.

Shanker, however, notes that, although teachers will be encouraged to "assert themselves politically," they "are increasingly conscious that collective bargaining gains can be lost by national politics that effect aid to education and other aid to the States, by inflationary policies that cheapen wage increases, and by health policies that limit disposable income."

Those who find new insights in this book may want to read *Work in America: The Decade Ahead*, edited by Clark Kerr and Jerome M. Rosow (1979). It has other prominent labor relations leaders look at similar issues in an approach somewhat broader in scope. However, neither of these books deals with collective bargaining techniques as does Reed C. Richardson in his excellent *Collective Bargaining by Objectives: A Positive Approach* (1977).

Readers will ask themselves how the experts assembled by Havelick can differ so radically on how they are affected by inflation, foreign competition, and other issues. Havelick supplies the answers by having them describe their problems, experiences, and collective bargaining solutions. This should give pause to those who urge ready-made, definite, unambiguous solutions to work problems without considering those factors

which call for a variety of experimental, creative approaches.

The book is clearly written and should prove useful to both labor relations students and policymakers in the world of work.

—IRVING PASTER  
Associate Professor Emeritus,  
Management and Organization Sciences  
Wayne State University

## Perils of overseas investment

*Foreign Investment and the Management of Political Risk.* By Dan Haendel. Boulder, Colo., Westview Press, 1979. 206 pp. \$18.50.

In the conduct of international business, one must expect to encounter a political milieu very different from one's domestic political environment. In the best of circumstances, this fact can cause the international investor some uncertainty, and in the extremely unstable political conditions that prevail in some regions, the risk of sustaining substantial loss on an investment as a result of political change can be significant. Dan Haendel has approached this important and very complex issue in this admittedly "modest attempt to contribute to the formulation of better corporate and public policy." Unfortunately, he is only modestly successful in achieving this limited goal.

A major factor in the failure of *Foreign Investment and the Management of Political Risk* to develop its full potential is the author's apparent indecision as to who his audience should be. From the academics' viewpoint, this work could only be regarded as a somewhat over-long survey of literature, with scant original material, interpretation, or analytic synthesis. If Haendel was attempting to reach the technical specialist in country risk analysis, he has provided no depth of technical detail in his summaries of method, even though he does cover a fairly wide range of earlier work of his own and of other authors. If he intended an audience of upper-level executives, private or public, his book does not provide a really effective guide to a decisionmaker's interpretation of technical analyses of political risk. It did not seem that the author was actually unaware of these concerns, he simply did not focus his attention on any one of them and, as a result, did not adequately address anyone's needs.

On a more specific level, I would like to take issue with Haendel's "Political System Stability Index" (PSSI). The PSSI is an extension of earlier work by Haendel and two coauthors, and is one of the few places where the reviewer can directly criticize a substantive contribution of the author's. When reduced to

the shorthand of mathematical notation, the PSSI takes the form:

$$PS_j = \sum_1^n a_i Z_{ij}$$

where  $PS_j$  is the PSSI value for country  $j$ ,  $Z_{ij}$  is the Z-score  $((X_{ij} - \bar{X}_i)/s_i)$  of the  $i$ th indicator for country  $j$ , and  $a_i$  is the weight assigned to the  $i$ th indicator.

Despite the author's insistence that this index is based on "hard" quantitative data rather than "soft" measures of opinion, it is obvious that the index is quite dependent on the weighting structure; and the weighting structure in this case has been arbitrarily and somewhat carelessly imposed using extremely tenuous theoretical justifications. For instance, energy consumption per capita, which is assumed to be a proxy for economic development, which is itself assumed to have a positive relationship with political stability, is given 5 times the weight of such direct measures of political unrest as riots and government crises, and over 3 times the weight of such indicators as assassinations and coups d'état. As justification for a conclusion of this counterintuitive, the reader might reasonably expect more than the skimpy theoretical framework and nearly nonexistent empirical validations presented in this volume.

Even with its flaws, this volume contains the seeds of a good deal of future work. The importance of such a research program in this field is underscored by a *Wall Street Journal* (Feb. 20, 1980, p. 25) quotation of the executive vice president of the Chase Manhattan Bank saying that, as a whole, the banking industry has been doing a "pretty miserable job of predicting political risk." In a similar vein, Edward Frydl, writing in the Federal Reserve Bank of New York's *Quarterly Review* (Winter 1979-80, pp. 11-20), has identified miscalculation of political risk as one potential destabilizer of the Eurocurrency markets, and, through those markets, the international monetary system. If Haendel chooses to write off this book as a preliminary exercise, he should be expected to contribute much more to this vital field.

—RICHARD M. DEVENS, JR.  
Office of Current Employment Analysis  
Bureau of Labor Statistics

## Growth industry for neutrals

*Government Labor Relations: Trends and Information for the Future, Vol. I, 1975-1978.* Edited by Hugh D. Jascourt. Oak Park, Ill., Moore Publishing Co., Inc., 1979. 399 pp. \$12.

In recent years, interested persons have raised questions concerning the future of collective bargaining in the United States. Some have asked: "Is collective



bargaining dead?" They point to figures published by the Bureau of Labor Statistics which clearly indicate that overall labor-union growth has declined in the private sector, and that union membership as a proportion of labor force and/or nonagricultural employment has dropped significantly over the years.

The only major area where growth in union membership has occurred is in the public sector—Federal, State, and local governments. In fact, growth in these areas is the reason that organized labor has been able to maintain a steady rate in overall membership. It is useful to keep in mind that approximately 1 of 6 U.S. workers is employed by government, with about 1 of 5 public workers employed by State and local governments.

Many writers point to President Kennedy's Executive Order 10988, issued in 1962, as the stimulus for public-sector unionism. While several States and cities had already ventured into collective bargaining with representatives of their employees, Executive Order 10988 served to generate increased union activity in the Federal Government and among the States and communities.

What has emerged is a hodge-podge of laws, regulations, administrative procedures, and attitudes which have given public-sector unionism an aura of instability, experimentation, volatility, and immaturity.

Many books and articles have been written about specific laws, illegal job actions, administrative deficiencies, and so forth, in the public sector. There are also dozens of courses and seminars held each year for practitioners, administrators, neutrals, or anyone else interested in public-sector unionism. The problem is often one of what to read or which seminars or conferences to attend. In fact, however, it is difficult to find in one place, one book, or one meeting, enough about the field as a whole to serve the needs of those involved in public-sector labor relations.

This book provides a blend of legal, conceptual, and operational material that offers the reader a solid foundation concerning the history and current state of the art in public-sector labor relations. It is organized into three parts, as follows:

Part I provides an evolutionary picture of State and local level labor relations by setting out briefly the major issues and legal decisions that have shaped the collective bargaining systems. It discusses questions of coverage, unit determination, recognition, elections, union security, scope of bargaining, grievance procedures, other dispute resolution procedures, impasse resolution, problems of strikes, and other important areas that have made public-sector collective bargaining so dynamic and complicated.

Part II provides coverage of some of the more significant legal decisions in the public-sector area, such as the National League of Cities v. Usery constitutional issue. Other landmark cases pertaining to authority of

courts, units, arbitration, fiscal crises, strikes and strikers, union security, duty of fair representation, and so forth, provide a well-rounded legal framework for the reader.

Part III is a series of articles by individuals knowledgeable about public-sector labor-management relations. It covers various viewpoints and perspectives, such as political, economic, labor, management, and the public.

One article, "Training Programs for Neutrals" is long overdue. This reviewer has often been asked by students to suggest ways to become a neutral in the field of collective bargaining. The article describes a variety of training programs that have been tried or which are still underway. It is hard to know, however, which programs are really open to all interested parties and which have provided bona fide opportunities, particularly for young people interested in the field. Experience has shown that parties to a dispute want knowledgeable, experienced neutrals handling their cases. Young people need to get experience, but how does one get this experience? Internships and working with known, competent neutrals are suggested ways. Much more needs to be written about this area.

This is a book well worth acquiring as a ready reference source, or as auxiliary text for a course in public-sector collective bargaining.

—BEN BURDETSKY

Professor of Personnel and Labor Relations  
George Washington University

## Managers as entrepreneurs

*Managing Change: Today's Challenge to Management.*

By John E. Flaherty. New York, Nellen Publishing Co., 1979. 171 pp., bibliography. \$9.95.

This book, by John E. Flaherty, encompasses subject matter that is broader than either its title or chapter titles would lead one to suspect. Five of the six chapter headings include the word entrepreneur. The book discusses private sector management and entrepreneur as used here means the preferred qualities of any manager. Hence, the book is broad-based; it is unblushingly a Peter Drucker-style book. Indeed, Flaherty gives Drucker credit for being both his inspiration and a source of encouragement.

The strength of this volume is its freshness of perspective, the author's ability to embrace a vast amount of managerial data (financial, anecdotal, and so forth), and to use it Drucker-like to illustrate a point. Although Flaherty has a broad knowledge of successful and unsuccessful corporate managerial and marketing strategies, he does not come up to the richness, the vi-

sion, and the readability of a Drucker.

Some sections of the book are insightful and exciting, other sections seem trivial, and in some instances are highly questionable. Because such a broad range of facts, tactics, firms, and stories are covered, it is not surprising that the book is uneven. It would take a superman to master this material; in fact, Flaherty has not done badly. Perhaps he deserves credit for even trying.

The first half of the book is a loosely-knit collection of suggestions, examples, and broad analyses. The author urges the firm to be opportunity-oriented rather than problem-focused; it should be ready to drop a failing product. Although Flaherty urges abandonment of an obsolete product or plant, he urges caution in one area: ". . . products should be treated ruthlessly; but, with people, loyalty and conscience should be factored into the decision."

Flaherty shows how the firm can be more efficient by concentrating on its "knowledge excellence," and not trying to produce and market a broad range of unrelated products. He cites firms such as Sears, Roebuck and Co., Pepsi Cola, Music Corp. of America, K-Mart, and Anheuser-Busch, which did so successfully, and W. T. Grant, which failed in this.

The latter half of the book is broader in scope. The author presents an excellent list of questions for managing capital resources, a strong criticism of the theories of contemporary managerial psychologists, useful hints for the manager on the use of time, and good suggestions on making performance appraisal more positive.

Flaherty correctly describes new business as flexible, willing to assume risks, and innovative. He also notes that a majority of the larger firms are unwilling to take risks, and, therefore, are not creative.

Flaherty's background in management was obtained through consulting and teaching; his lack of education in business disciplines is demonstrated in his treatment of various items. For example, the book is about entrepreneurship among managers. The basic motive of entrepreneurs is achievement. Flaherty evaluates many psychologists who treat motivation, but fails to include David McClelland, who has done so much on the need to achieve.

Flaherty calls the idea of profit "deceptively easy . . . In an engineering and physical science sense it is the ratio between inputs on efforts and outputs or results . . ." This reviewer has never heard profit described as a ratio and does not understand it. Flaherty fails to provide any additional explanation. Because Flaherty is a historian, one would have hoped to enjoy more historical and humanistic examples beyond the occasional reference to Pascal or St. Augustine.

It is distracting that Flaherty consistently notes the university affiliation of Harvard academics, and not oth-

ers. The editor and publisher should have caught the serious mix-up of text on pp. 99-100.

There is some excellent material in this book. Although it is uneven, it deserves our attention.

—GERALD CAVANAGH

School of Business and Administration  
University of Detroit

### Covering the safety and health spectrum

*Protecting People at Work: A Reader in Occupational Safety and Health.* Edited by Judson MacLaury. Washington, U.S. Department of Labor, 1980. 361 pp. Stock No. 029-015-00055-4. \$6.50, paper, Superintendent of Documents, Washington 20402.

The Occupational Safety and Health Act requires an annual report to Congress on the status of worker on-the-job safety and health. It is part of the law frequently ignored, and always postponed. Now comes an official U.S. Labor Department book—honoring Frances Perkins—which makes up for those lapses.

The numerous authors of this book, edited by Judson MacLaury, include many of the new breed of environmental specialists who have come to the forefront during the Ray Marshall and Eula Bingham era at the U.S. Occupational Safety and Health Administration.

Their viewpoints and plain talk make for smooth and informative reading. For too long a time, occupational safety and health literature has been burdened with a remoteness which has driven the trade away. This book was meant to be read, not stacked away for reference. Workers who read this book and heed the information presented could possibly live longer and fuller lives.

Government publications often run a long timespan between the author's typewriter and final print. There are gaps in the book which suffer from time problems. For example, the excellent new series of Occupational Safety and Health booklets would have made a useful appendix (at least a few gutsy excerpts are worth adding). And, Bingham's columns, which scored so well in many labor papers, ought to have found a place in this book.

A reading list of some of the best news articles and books which have proliferated in recent years—and were a feature of OSHA's media seminar in Chicago in 1979—would have been a welcome addition.

Still, it is hard for me to quarrel with the actual contents. The book has a good range of material and the writers know their subject matter. They write felicitously and are not long-winded.

There is hardly a nook in the nearly endless topic of health and safety which is not treated—chemicals, noise, dust, reproductive hazards, and the human body. Each is given a good introduction. And there is more—

the regulatory controversy, OSHA and its mission, comparative foreign experiences, and the economics of health and safety. Plenty to ponder here.

Yet, the Nation today is full of eager OSHA students—workers, unions, organizations, trade associations, members of Congress, think-tanks on all sides of the spectrum—who hunger for more information on the often baffling OSHA universe. If there is any flaw in this welcome book, and it is very minor, it is that readers who search for reference sources may not always know where to look. May this, then, be the first of a new series of updates as the OSHA mission is increasingly fulfilled.

—FRANKLIN WALLICK  
Editor  
UAW Washington Report

## Publications received

### Economic and social statistics

International Labor Organization, *Year Book of Labour Statistics, 1979*. 39th ed. Geneva, 1979, 711 pp. \$47.75. Distributed in the United States by Washington Branch of ILO.

National Center for Health Statistics, *The Model State Health Statistics Act: A Model State Law for the Collection, Sharing, and Confidentiality of Health Statistics*. Hyattsville, Md., U.S. Department of Health, Education, and Welfare, Public Health Service, Office of Health Research, Statistics, and Technology, National Center for Health Statistics 1980, 53 pp. (Vital and Health Statistics: Series 4, Documents and Committee Reports, No. 21); (DHEW Publication No. (PHS) 80-1458).

U.S. Bureau of Labor Statistics, *Distribution of Occupational Employment in States and Areas by Race and Sex, 1978*. Washington, 1980, 31 pp. (Bulletin 2053). Stock No. 029-001-02461-4. \$2, Superintendent of Documents, Washington 20402.

—*Selected Papers from North American Conference on Labor Statistics held in Boston, Mass., June 18-21, 1979*. Washington, 1980, 101 pp.

### Economic growth and development

Bosworth, Barry P., "Conflicts in Economic Policy," *Economic Outlook USA*, Spring 1980, pp. 27-29.

Committee for Economic Development, *Redefining Government's Role in the Market System*. (A Statement on National Policy by the Research and Policy Committee of the Committee for Economic Development.) Washington, 1979, 144 pp. \$6.50, cloth; \$5, paper.

Levine, Solomon B. and Hisashi Kawada, *Human Resources in Japanese Industrial Development*. Princeton, N.J., Princeton University Press, 1980, 332 pp., bibliography. \$20.

Parachini, Lawrence F., Jr., *A Political History of the Special Impact Program*. Cambridge, Mass., Center for Community Economic Development, 1980, 217 pp., bibliography. \$6.

Pechman, Joseph A., ed., *Setting National Priorities: Agenda for the 1980s*. Washington, The Brookings Institution, 1980, 563 pp. \$18.95, cloth; \$8.95, paper.

Ridker, Ronald G., and William D. Watson, *To Choose a Future: Resource and Environmental Consequences of Alternative Growth Paths*. Washington, Resources for the Future, 1980, 463 pp. \$29.50, The Johns Hopkins University Press, Baltimore.

### Health and safety

Barth, Peter S. with Allan Hunt, *Workers' Compensation and Work-Related Illnesses and Diseases*. Cambridge, The Massachusetts Institute of Technology, 1980, 391 pp. \$27.50, The MIT Press, Cambridge, Mass.

Ferman, Louis A. and Jeanne P. Gordus, eds., *Mental Health and the Economy*. (Papers Presented at a Conference Co-sponsored by The Institute of Labor and Industrial Relations, The University of Michigan-Wayne State University and The Center for Studies of Metropolitan Problems, National Institute of Mental Health.) Kalamazoo, Mich., The W. E. Upjohn Institute for Employment Research, 1979, 423 pp. \$8.50, cloth; \$6.25, paper.

U.S. Bureau of Labor Statistics, *Accidents Involving Eye Injuries*. Washington, 1980, 23 pp. (Report 597.)

—*Occupational Injuries and Illnesses in 1978: Summary*. Washington, 1980, 25 pp. (Report 586.)

### Industrial relations

Anderson, Bernard and Isabel V. Sawhill, eds., *Youth Employment and Public Policy*. New York, The American Assembly, Columbia University, 1980, 161 pp. \$11.95, cloth; \$5.95, paper, Prentice-Hall, Inc., Englewood Cliffs, N.J.

Bulmer, Charles and John L. Carmichael, Jr., "Toil and Trouble: The Reform of the Labor Law," *Policy Studies Journal*, Vol. 8, No. 3, 1979, pp. 400-06.

Coleman, Charles J., "The Civil Service Reform Act of 1978: Its Meaning and Its Roots," *Labor Law Journal*, April 1980, pp. 200-07.

Cruz, Nestor, "Is Equal Employment Opportunity Cost Effective?" *Labor Law Journal*, May 1980, pp. 295-98.

Dufty, N. F., *Industrial Relations in the Public Sector: The Firemen*. St. Lucia, Queensland, Australia, University of Queensland Press, 1979, 333 pp. \$24.25. Available in the United States from the University of Queensland Press, Lawrence, Mass.

Elkin, Randy D. and Thomas L. Hewitt, *Successful Arbitration: An Experiential Approach*. Reston Va., Reston Publishing Co., Inc., 1980, 100 pp. \$6.95.

Gillespie, J. David and Michael L. Mitchell, "Bakke, Weber, and Race in Employment: Analysis of Informed Opinion," *Policy Studies Journal*, Vol. 8, No. 3, 1979, pp. 383-91.

Golodner, Jack, "Viewpoint: On Collective Bargaining," *Industrial and Labor Relations Report*, Spring 1980, pp. 21-24.

Holley, William H., Jr., and Kenneth M. Jennings, *The Labor Relations Process*. Hinsdale, Ill., The Dryden Press, A division of Holt, Rinehart and Winston, Publishers, 1980, 656 pp. \$19.95.

Japan Institute of Labour, *Social Tensions and Industrial Relations Arising in the Industrialization Processes of Asian Countries*. (Proceedings of the 1979 Asian Regional Conference on Industrial Relations.) Tokyo, Japan Institute of Labour, 1979, 341 pp.

Kirschner, Kenneth, "Workers in a Whirlpool: Employees' Statutory Rights to Refuse Hazardous Work," *Labor Law Journal*, May 1980, pp. 283-94.

Kochan, Thomas A., *Collective Bargaining and Industrial Relations: From Theory to Policy and Practice*. Homewood, Ill., Richard D. Irwin, Inc., 1980, 523 pp. (The Irwin Series in Management and the Behavioral Sciences.) \$18.95.

Lamb, Charles M., "Equal Employment Opportunity and the Carter Administration: An Analysis of Reorganization Options," *Policy Studies Journal*, Vol. 8, No. 3, 1979, pp. 377-83.

Murrmann, Kent F., "The Scanlon Plan Joint Committee and Section 8(a)(2)," *Labor Law Journal*, May 1980, pp. 229-304.

Nash, Peter G. and George P. Blake, eds., *Appropriate Units for Collective Bargaining*. New York, Practising Law Institute, 1979, 457 pp. \$35.

Schantz, Harvey L. and Richard H. Schmidt, "The Evolution of Humphrey-Hawkins," *Policy Studies Journal*, Vol. 8, No. 3, 1979, pp. 368-77.

Smith, Baker Armstrong, "Landrum-Griffin After Twenty-One Years: Mature Legislation or Childish Fantasy?" *Labor Law Journal*, May 1980, pp. 273-82.

Sobel, Lester A., ed., *Quotas and Affirmative Action*. New York, Facts on File, 1980, 193 pp. \$15.

U.S. Bureau of Labor Statistics, *Characteristics of Major Collective Bargaining Agreements, January 1, 1978*, Washington, 1980, 113 pp. (Bulletin 2065.) Stock No. 029-001-02468-1. \$4.25, Superintendent of Documents, Washington 20402.

Whiting, Basil J., "OSHA's Enforcement Policy," *Labor Law Journal*, May 1980, pp. 259-72.

Wrubel, Barbara, "Liability Insurance for Insidious Disease: Who Picks Up the Tab," *Fordham Law Review*, April 1980, pp. 657-93.

### Industry and government organization

Alexander, Herbert E., *Financing Politics: Money, Elections and Political Reform*. 2d ed. Washington, Congressional Quarterly, Inc., 1980, 190 pp., bibliography. \$6.95, paper.

American Enterprise Institute for Public Research, *Regulatory Reform for Motor Carriers: An Analysis of Pending Legislation*. Washington, 1980, 44 pp. (AEI Legislative Analysis, 15, 96th Cong., 2d sess.)

— *Telecommunications Law Reform*. Washington, 1980, 64 pp. (AEI Legislative Analysis, 12, 96th Cong., 2d sess.)

Barksdale, Hiram C., and William D. Perreault, Jr., "Can Consumers Be Satisfied?" *MSU Business Topics*, Spring 1980, pp. 19-30.

Bock, Robert H., "Modern Values and Corporate Social Responsibility," *MSU Business Topics*, Spring 1980, pp. 5-17.

Meyer, Henry I., *The Face of Business*. New York, AMACOM, A division of American Management Associations, 1980,

268 pp. \$12.95.

Pritchard, Robert E. and Thomas J. Hindelang, *The Lease/Buy Decision*. New York, AMACOM, A division of American Management Associations, 1980, 276 pp. \$24.95.

Walgreen, John A. and others, "Government Regulation: Who Should Foot the Bill?" *The Journal/The Institute for Socioeconomic Studies*, Summer 1980, pp. 46-62.

Wilson, James Q., ed., *The Politics of Regulation*. New York, Basic Books, Inc., 1980, 468 pp. \$18.95.

### International economics

Chouraqui, Jean-Claude and David King, "Monetary Targets and Inflation Control," *The OECD Observer*, March 1980, pp. 16-18.

Crabb, Cecil V., Jr., and Pat M. Holt, *Invitation to Struggle: Congress, the President and Foreign Policy*. Washington, Congressional Quarterly Inc., 1980, 234 pp. \$6.95, paper.

Kennedy, Thomas, *European Labor Relations: Text and Cases*. Lexington, Mass., D.C. Heath and Co., Lexington Books, 1980, 427 pp. \$29.95.

Leff, Nathaniel H. and Kazuo Sato, "Macroeconomic Adjustment in Developing Countries: Instability, Short-run Growth, and External Dependency," *The Review of Economics and Statistics*, May 1980, pp. 170-79.

Leiderman, Leonardo, "Output Supply in the Open Economy: Some International Evidence," *The Review of Economics and Statistics*, May 1980, pp. 180-89.

"OECD Member Countries: 1980 Edition—16th Year," *The OECD Observer*, March 1980, pp. 19-26.

Ostry, Sylvia, "The World Economy in the 1970s and 1980s," *The OECD Observer*, March 1980, pp. 13-15.

Prybyla, Jan, "China in the 1980s," *Challenge*, May-June 1980, pp. 4-20.

"Steel in the 1980s: An OECD Symposium," *The OECD Observer*, March 1980, beginning on p. 3.

U.S. Bureau of International Labor Affairs, *Country Labor Profile: Brazil*. By Martha R. Lowenstern. Washington, U.S. Department of Labor, Bureau of International Labor Affairs, 1980, 8 pp. 60 cents, Superintendent of Documents, Washington 20402.

— *Country Labor Profile: Ghana*. By Donald S. Harris. Washington, U.S. Department of Labor, Bureau of International Labor Affairs, 1980, 6 pp. 60 cents, Superintendent of Documents, Washington 20402.

### Labor force

Keyserling, Leon H., "The Problem of High Unemployment: Result of Muddled National Economic Policies," *Policy Studies Journal*, Vol. 8, No. 3, 1979, pp. 349-59.

Levison, Andrew, *The Full Employment Alternative*. New York, Coward, McCann & Geoghegan, Inc., 1980, 252 pp. \$10.95.

Sheppard, C. Stewart and Donald C. Carroll, eds., *Working in the Twenty-First Century*, New York, Philip Morris, Inc., 1980, 235 pp., bibliography. \$18.95, John Wiley & Sons, Inc., New York.

U.S. Bureau of Labor Statistics, *Estimating State and Local Area Unemployment: A Guide for Data Users*. Washington, 1980, 95 pp. (Bulletin 2058.) Stock No.

029-001-02467-3. \$4, Superintendent of Documents, Washington 20402.

### Management and organization theory

- Bagozzi, Richard P., "Salespeople and Their Managers: An Exploratory Study of Some Similarities and Differences," *Sloan Management Review*, Winter 1980, pp. 15-26.
- Blumberg, Melvin, "Job Switching in Autonomous Work Groups: An Exploratory Study in a Pennsylvania Coal Mine," *Academy of Management Journal*, June 1980, pp. 287-306.
- Bock, Robert H., "Modern Values and Corporate Social Responsibility," *MSU Business Topics*, Spring 1980, pp. 5-17.
- Christopher, William F., *Management for the 1980s*. Rev. ed. New York, AMACOM, A division of American Management Associations, 1980, 295 pp.
- Cohen, William A., *Principles of Technical Management*. New York, AMACOM, A division of American Management Associations, 1980, 222 pp. \$19.95.
- Conlon, Edward J., "Feedback About Personal and Organizational Outcomes and Its Effect on Persistence of Planned Behavioral Changes," *Academy of Management Journal*, June 1980, pp. 267-86.
- Desatnick, Robert L., *The Expanding Role of the Human Resources Manager*. New York, AMACOM, A division of American Management Associations, 1979, 230 pp. \$15.95.
- Doz, Yves L., "Strategic Management in Multinational Companies," *Sloan Management Review*, Winter 1980, pp. 27-46.
- Gandz, Jeffrey and Victor V. Murray, "The Experience of Workplace Politics," *Academy of Management Journal*, June 1980, pp. 237-51.
- Hanan, Mack, *Life-Styled Marketing: How to Position Products for Premium Profits*. Rev. ed. New York, AMACOM, A division of American Management Associations, 1980, 169 pp. \$16.95.
- Imundo, Louis V., *The Effective Supervisor's Handbook*. New York, AMACOM, A division of American Management Associations, 1980, 239 pp. \$15.95.
- Krause, William H., *How to Get Started as a Manufacturers' Representative*. New York, AMACOM, A division of American Management Associations, 1980, 207 pp. \$14.95.
- Lott, Richard W., *Auditing the Data Processing Function*. New York, AMACOM, A division of American Management Associations, 1980, 214 pp. \$16.95.
- McCafferty, Donald N., *Successful Field Service Management*. New York, AMACOM, A division of American Management Associations, 1980, 181 pp. \$16.95.
- McLane, Helen J., *Selecting, Developing and Retaining Women Executives: A Corporate Strategy for the Eighties*. New York, Litton Educational Publishing, Inc., 1980, 248 pp., bibliography. \$14.95, Van Nostrand Reinhold Co., New York.
- Nygren, William V., *Business Forms Management*. New York, AMACOM, A division of American Management Associations, 1980, 182 pp. \$22.95.
- Ozawa, Terutomo, "Japanese World of Work: An Interpretive

Survey," *MSU Business Topics*, Spring 1980, pp. 45-55.

- Sawyer, Lawrence B., *The Manager and the Modern Internal Auditor: A Problem-Solving Partnership*. New York, AMACOM, A division of American Management Associations, 1979, 466 pp. \$24.95.
- Shulman, Joel J., *How to Get Published in Business/Professional Journals*. New York, AMACOM, A division of American Management Associations, 1980, 258 pp. \$14.95.
- Stevens, George E. and Angelo S. DeNisi, "Women as Managers: Attitudes and Attributions for Performance by Men and Women," *Academy of Management Journal*, June 1980, pp. 355-61.
- Sweeny, Allen, *ROI Basics for Nonfinancial Executives*. New York, AMACOM, A division of American Management Associations, 1979, 115 pp. \$9.95.
- "What Will the Decade of the '80s hold for Women in Management?" *Personnel Administrator*, April 1980, pp. 22-81.

### Monetary and fiscal policy

- Bechter, Dan M. and Stephen H. Pollock, "Are Inventories Sensitive to Interest Rates?" *Economic Review*, Federal Reserve Bank of Kansas City, April 1980, pp. 18-27.
- Crum, Lawrence L., *Electronic Funds Transference in Texas: The State of Its Development and the Outlook for the 1980s*. Austin, University of Texas, Bureau of Business Research, 1980, 48 pp.
- Minsky, Hyman P., "The Federal Reserve: Between a Rock and a Hard Place," *Challenge*, May-June 1980, pp. 30-36.
- Okun, Arthur, "The Balanced Budget Is a Placebo," *Challenge*, May-June 1980, p. 3.
- Pugh, Olin S., *Commercial Banking Trends, 1950-1979: A Survey of United States and South Carolina Developments*. Columbia, University of South Carolina, College of Business Administration, Division of Research, 1980, 86 pp. (Occasional Studies, 13.)
- Rose, Sanford, "Dark Days Ahead for Banks," *Fortune*, June 30, 1980, pp. 86-90.
- Winningham, Scott and Donald G. Hagan, "Regulation Q: An Historical Perspective," *Economic Review*, Federal Reserve Bank of Kansas City, April 1980, pp. 3-17.

### Prices and living conditions

- Alperovitz, Gar and Jeff Faux, "Controls and the Basic Necessities," *Challenge*, May-June 1980, pp. 21-29.
- Converse, Muriel, Richard T. Curtin, Maureen Kallick, "Coping with Inflation," *Economic Outlook USA*, Spring 1980, pp. 35-38.
- Juster, F. Thomas, "Dealing with Inflation: Policy Alternatives," *Economic Outlook USA*, Spring 1980, pp. 30-31.
- Mullineaux, Donald J., "Unemployment, Industrial Production, and Inflation Uncertainty in the United States," *The Review of Economics and Statistics*, May 1980, pp. 163-69.
- "Special Report: Inflation and Wage Bargaining," by Robert L. Raimon; "A Response from Labor," by E. Howard Molisani; "A Response from Management," by John M. Baitzell, *Industrial and Labor Relations Report*, Spring 1980, pp. 7-20.

**Productivity and technological change**

Kendrick, John W. and Beatrice N. Vaccara, eds., *New Developments in Productivity Measurement and Analysis*. New York, National Bureau of Economic Research, 1980, 717 pp. (Studies in Income and Wealth, Vol. 44.) Available from the University of Chicago Press, Chicago. \$52.

National Academy of Sciences, *Measurement and Interpretation of Productivity*. Washington, National Academy of Sciences, National Research Council, 1979, 449 pp. \$18.

U.S. Bureau of Labor Statistics, *Productivity: A selected Annotated Bibliography, 1976-78*. Washington, 1980, 166 pp. (Bulletin 2051.) Stock No. 029-000-02457-6. \$5.50, Superintendent of Documents, Washington 20402.

**Social institutions and social change**

Alexander, Chauncey A. and Sally J. Alexander, eds., *China View: First NASW Study Tour*. Washington, National Association of Social Workers, Inc., 1979, 357 pp. \$6.95, paper.

Cantarow, Ellen, with Susan Gushee O'Malley and Sharon Strom, *Moving the Mountain: Women Working for Social Change*. Old Westbury, N.Y., The Feminist Press, 1980, 166 pp., bibliography. \$4.75.

Ferman, Louis A. and Jeanne P. Gordus, eds., *Mental Health and the Economy. (Papers Presented at a Conference Co-sponsored by the Institute of Labor and Industrial Relations, The University of Michigan-Wayne State University, and the Center for Studies of Metropolitan Problems, National Institute of Mental Health.)* Kalamazoo, Mich., W. E. Upjohn Institute for Employment Research, 1979, 423 pp. \$8.50, cloth; \$6.25, paper.

Graber, Doris A., *Mass Media and American Politics*. Washington, Congressional Quarterly Inc., 1980, 304 pp. \$6.95, paper.

Johnson, Marilyn, "Women and Elective Office," *Society*, May-June 1980, pp. 63-69.

Perkins, Gail and Judith Rhoades, *The Women's Financial Survival Handbook*. New York, New American Library, Plume Books, 1980, 286 pp., bibliography. \$5.95, paper.

Toffler, Alvin, *The Third Wave*. New York, William Morrow and Co., Inc., 1980, 544 pp., bibliography. \$14.95.

**Urban affairs**

Sternlieb, George and others, *America's Housing: Prospects and Problems*. New Brunswick, N.J., Rutgers—The State University of New Jersey, Center for Urban Policy Research, 1980, 562 pp. \$20.

U.S. Department of Commerce, *The City-Suburb Income Gap: Is It Being Narrowed by a Back-to-the-City Movement?* Washington, U.S. Department of Commerce, Bureau of the Census, 1980, 22 pp. (Special Demographic Analyses, CDS-80-1.) Stock No. 003-024-02378-4. \$1.75, Superintendent of Documents, Washington 20402.

**Wages and compensation**

Eidem, Rolf and Berndt Öhman, *Economic Democracy Through Wage-Earner Funds*. Stockholm, Sweden, Swedish Center for Working Life, 1979, 58 pp.

Millard, Cheedle W., Diane L. Lockwood, Fred Luthans, "The Impact of a Four-Day Workweek on Employees," *MSU Business Topics*, Spring 1980, pp. 31-37.

Öhman, Berndt, *Wage-Earner Funds: Background, Problems, and Possibilities: A Summary of SOU (Swedish Government Official Reports) 1979:8*. Stockholm, Sweden, Swedish Commission on Wage-Earners and Capital Formation, 1979, 20 pp.

U.S. Bureau of Labor Statistics, *Area Wage Surveys: New Orleans, Louisiana, Metropolitan Area, October 1979* (Bulletin 2050-53, 38 pp., \$2.25); *Indianapolis, Indiana, Metropolitan Area, October 1979* (Bulletin 2050-54, 39 pp., \$2.25); *Miami, Florida, Metropolitan Area, October 1979* (Bulletin 2050-55, 38 pp., \$2.25); *Philadelphia, Pennsylvania-New Jersey, Metropolitan Area, November 1979* (Bulletin 2050-57, 55 pp., \$3); *Kansas City, Missouri-Kansas, Metropolitan Area, September 1979* (Bulletin 2050-58, 51 pp., \$2.75); *Los Angeles—Long Beach, California, Metropolitan Area, October 1979* (Bulletin 2050-59, 43 pp., \$2.25). Available from the Superintendent of Documents, Washington 20402, GPO bookstores, or BLS regional offices.

— *Union Wages and Benefits: Printing Trades, September 1, 1978*. Washington, 1980, 120 pp. (Bulletin 2049.) Stock No. 029-000-02443-6. \$4.25, Superintendent of Documents, Washington 20402.

**Welfare programs and social programs**

Hiraishi, Nagahisa, *Japanese Industrial Relations Series: Social Security*. Tokyo, The Japan Institute of Labour, 1980, 32 pp. (Series 5.)

Labour Canada, *Joint Participation in Pension Plans*. Ottawa, Ontario, Labour Canada, Public Relations Branch, 1979, 14 pp.

Robertson, A. Haeworth, "A Debate on Social Security: Part I," *Across the Board*, June 1980, pp. 32-48.

Smith, Geoffrey, "Britain Cuts Indexing Government Benefits," *The Journal/The Institute for Socioeconomic Studies*, Summer 1980, pp. 63-87.

Stein, Bruno, *Social Security and Pensions in Transition: Understanding the American Retirement System*. New York, The Free Press, 1980, 308 pp., bibliography. \$14.95.

**Worker training and development**

Kahl, Anne, "Presenting Exploring Careers," *Occupational Outlook Quarterly*, Spring 1980, pp. 22-25.

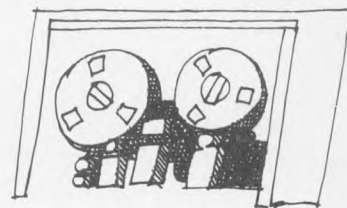
Kort, Carol, "Career Discovery: Career Education for Design Occupations," *Occupational Outlook Quarterly*, Spring 1980, p. 29.

Nardone, Thomas, "The Job Outlook in Brief," *Occupational Outlook Quarterly*, Spring 1980, pp. 2-21.

Pettman, Barrie O., ed., *European Insights: Manpower*. Bradford, West Yorkshire, England, MCB Publications Limited, 1979, 140 pp. (European Insights Series, 7.) \$27.

The National Urban Coalition, *Job Training and the Schools: A Community Guide to Vocational Education*. Washington, The National Urban Coalition, 1980, 32 pp. Free.

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## NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics. A brief introduction to each group of tables provides definitions, notes on the data, sources, and other material usually found in footnotes.

Readers who need additional information are invited to consult the BLS regional offices listed on the inside front cover of this issue of the *Review*. Some general notes applicable to several series are given below.

**Seasonal adjustment.** Certain monthly and quarterly data are adjusted to eliminate the effect of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might otherwise mask short-term movements of the statistical series. Tables containing these data are identified as "seasonally adjusted." Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years. For a technical discussion of the method used to make seasonal adjustments, see "Appendix A. The BLS Seasonal Factor Method," *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), pp. 272-78, and *X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15 (Bureau of the Census, 1967). Seasonally adjusted labor force data in tables 2-7 were last revised in the February 1980 issue of the *Review* to reflect the preceding year's experience. Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada Catalogue No. 12-564E, September 1979).

The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year. Annual revision of the seasonally adjusted payroll data in tables 11, 13, 16, and 18 begins with the August 1980 issue using the X-11 ARIMA seasonal adjustment methodology. New season-

al factors for productivity data in tables 33 and 34 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

**Adjustments for price changes.** Some data are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of \$3 and a current price index number of 150, where 1967 = 100, the hourly rate expressed in 1967 dollars is \$2 ( $\$3/150 \times 100 = \$2$ ). The resulting values are described as "real," "constant," or "1967" dollars.

**Availability of information.** Data that supplement the tables in this section are published by the Bureau of Labor Statistics in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule given below. The *Handbook of Labor Statistics 1978*, Bulletin 2000, provides more detailed data and greater historical coverage for most of the statistical series presented in the *Monthly Labor Review*. More information from the household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau, and in two comprehensive data books issued annually—*Employment and Earnings, United States* and *Employment and Earnings, States and Areas*. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, *Current Wage Developments*. More detailed price information is published each month in the periodicals, the *CPI Detailed Report* and *Producer Prices and Price Indexes*.

### Symbols

p = preliminary. To improve the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.

r = revised. Generally this revision reflects the availability of later data but may also reflect other adjustments.

n.e.c. = not elsewhere classified.

**Schedule of release dates for major BLS statistical series**

Title and frequency (monthly except where indicated)	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation .....	August 1	July	September 5	August	1-11
Producer Price Index .....	August 15	July	September 5	August	26-30
Consumer Price Index .....	August 22	July	September 23	August	22-25
Real earnings .....	August 22	July	September 23	August	14-20
Productivity and costs (quarterly):					
Nonfinancial corporations .....	August 27	2nd quarter	.....	.....	31-34
Work stoppages .....	August 28	July	September 29	August	37
Labor turnover in manufacturing .....	August 29	July	September 30	August	12-13



## EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 65,000 households beginning in January 1980, selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

### Definitions

**Employed persons** are (1) those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

**Unemployed persons** are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff or waiting to start new jobs within the next 30 days are also counted among the unemployed. The **unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population; the **total labor force** includes military personnel. Persons **not in the labor force** are

those not classified as employed or unemployed; this group includes persons retired, those engaged in their own housework, those not working while attending school, those unable to work because of longterm illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy.

**Full-time workers** are those employed at least 35 hours a week; **part-time workers** are those who work fewer hours. Workers on part-time schedules for economic reasons (such as slack work, terminating or starting a job during the week, material shortages, or inability to find full-time work) are among those counted as being on full-time status, under the assumption that they would be working full time if conditions permitted. The survey classifies unemployed persons in full-time or part-time status by their reported preferences for full-time or part-time work.

### Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the preceding years. These adjustments affect the comparability of historical data presented in table 1. A description of these adjustments and their effect on the various data series appear in the Explanatory Notes of *Employment and Earnings*.

Data in tables 2-7 are seasonally adjusted, based on the seasonal experience through December 1979.

**1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-79**

[Numbers in thousands]

Year	Total non-institutional population	Total labor force		Civilian labor force					Not in labor force	
		Number	Percent of population	Total	Employed			Unemployed		
					Total	Agriculture	Nonagricultural industries	Number		Percent of labor force
1950	106,645	63,858	59.9	62,208	58,918	7,160	51,758	3,288	5.3	42,787
1955	112,732	68,072	60.4	65,023	62,170	6,450	55,722	2,852	4.4	44,660
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
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	84,240	61.1	80,734	77,902	3,606	74,296	2,832	3.5	53,602
1970	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280
1971	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666
1972	145,775	88,991	61.0	86,542	81,702	3,472	78,230	4,840	5.6	56,785
1973	148,263	91,040	61.4	88,714	84,409	3,452	80,957	4,304	4.9	57,222
1974	150,827	93,240	61.8	91,011	83,935	3,492	82,443	5,076	5.6	57,587
1975	153,449	94,793	61.8	92,613	84,783	3,380	81,403	7,830	8.5	58,655
1976	156,048	96,917	62.1	94,773	87,485	3,297	84,188	7,288	7.7	59,130
1977	158,559	99,534	62.8	97,401	90,546	3,244	87,302	6,855	7.0	59,025
1978	161,058	102,537	63.7	100,420	94,373	3,342	91,031	6,047	6.0	58,521
1979	163,620	104,996	64.2	102,908	96,945	3,297	93,648	5,963	5.8	58,623

**2. Employment status by sex, age, and race, seasonally adjusted**

[Numbers in thousands]

Employment status	Annual Average		1979								1980				
	1978	1979	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>TOTAL</b>															
Total noninstitutional population <sup>1</sup>	161,058	163,620	163,260	163,469	163,685	163,891	164,106	164,468	164,682	164,898	165,101	165,298	165,506	165,693	166,105
Total labor force	102,537	104,996	104,476	104,552	105,475	105,218	105,586	105,688	105,744	106,088	106,310	106,346	106,184	106,511	106,634
Civilian noninstitutional population <sup>1</sup>	158,941	161,532	161,182	161,393	161,604	161,801	162,013	162,375	162,589	162,809	163,020	163,211	163,416	163,601	164,013
Civilian labor force	100,420	102,908	102,398	102,476	103,093	103,128	103,494	103,595	103,652	103,999	104,229	104,260	104,094	104,419	104,542
Employed	94,373	96,945	96,495	96,652	97,184	97,004	97,504	97,474	97,608	97,912	97,804	97,953	97,656	97,154	96,537
Agriculture	3,342	3,297	3,246	3,243	3,267	3,315	3,364	3,294	3,385	3,359	3,270	3,326	3,358	3,242	3,191
Nonagricultural industries	91,031	93,648	93,249	93,409	93,917	93,689	94,140	94,180	94,223	94,553	94,534	94,626	94,298	93,912	93,346
Unemployed	6,047	5,963	5,903	5,824	5,909	6,124	5,990	6,121	6,044	6,087	6,425	6,307	6,438	7,265	8,006
Unemployment rate	6.0	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9	6.2	6.0	6.2	7.0	7.7
Not in labor force	58,521	58,623	58,784	58,917	58,511	58,673	58,519	58,780	58,937	58,810	58,791	58,951	59,322	59,182	59,471
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	67,006	68,293	68,123	68,227	68,319	68,417	68,522	68,697	68,804	68,940	69,047	69,140	69,238	69,329	69,532
Civilian labor force	53,464	54,486	54,288	54,370	54,579	54,597	54,735	54,760	54,709	54,781	54,855	55,038	54,996	55,114	55,220
Employed	51,212	52,264	52,158	52,201	52,325	52,311	52,453	52,443	52,374	52,478	52,579	52,531	52,300	51,868	51,510
Agriculture	2,361	2,350	2,301	2,305	2,327	2,375	2,377	2,371	2,438	2,427	2,387	2,435	2,394	2,320	2,270
Nonagricultural industries	48,852	49,913	49,857	49,896	49,998	49,936	50,076	50,072	49,936	50,051	49,892	50,096	49,906	49,548	49,240
Unemployed	2,252	2,223	2,130	2,169	2,254	2,286	2,282	2,317	2,335	2,303	2,577	2,507	2,696	3,246	3,710
Unemployment rate	4.2	4.1	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.2	4.7	4.6	4.9	5.9	6.7
Not in labor force	13,541	13,807	13,835	13,857	13,740	13,820	13,787	13,937	14,095	14,159	14,192	14,102	14,242	14,215	14,312
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	75,489	76,860	76,670	76,784	76,897	77,006	77,124	77,308	77,426	77,542	77,656	77,766	77,876	77,981	78,211
Civilian labor force	37,416	38,910	38,619	38,653	39,033	39,304	39,239	39,362	39,445	39,659	39,878	39,857	39,751	40,137	40,125
Employed	35,180	36,698	36,411	36,457	36,873	37,000	37,075	37,112	37,248	37,402	37,574	37,604	37,496	37,602	37,530
Agriculture	586	591	577	583	585	600	628	572	612	582	540	567	582	552	541
Nonagricultural industries	34,593	36,107	35,834	35,874	36,288	36,400	36,447	36,540	36,636	36,820	37,034	37,037	36,914	37,051	36,989
Unemployed	2,236	2,213	2,208	2,196	2,160	2,304	2,164	2,250	2,197	2,257	2,304	2,254	2,255	2,534	2,596
Unemployment rate	6.0	5.7	5.7	5.7	5.5	5.9	5.5	5.7	5.6	5.7	5.8	5.7	5.7	6.3	6.5
Not in labor force	38,073	37,949	38,051	38,131	37,864	37,702	37,885	37,946	37,981	37,883	37,778	37,909	38,125	37,844	38,086
<b>Both sexes, 16 - 19 years</b>															
Civilian noninstitutional population <sup>1</sup>	16,447	16,379	16,389	16,381	16,387	16,377	16,367	16,370	16,360	16,326	16,317	16,305	16,302	16,291	16,271
Civilian labor force	9,540	9,512	9,491	9,453	9,481	9,227	9,520	9,473	9,498	9,559	9,497	9,365	9,346	9,168	9,197
Employed	7,981	7,984	7,926	7,994	7,986	7,693	7,976	7,919	7,986	8,032	7,952	7,818	7,859	7,683	7,497
Agriculture	395	356	368	355	355	340	359	351	335	350	344	325	381	370	380
Nonagricultural industries	7,586	7,628	7,558	7,639	7,631	7,353	7,617	7,568	7,651	7,682	7,608	7,493	7,478	7,313	7,117
Unemployed	1,559	1,528	1,565	1,459	1,495	1,534	1,544	1,554	1,512	1,527	1,545	1,547	1,487	1,485	1,700
Unemployment rate	16.3	16.1	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0	16.3	16.5	15.9	16.2	18.5
Not in labor force	6,907	6,867	6,898	6,928	6,906	7,150	6,847	6,897	6,862	6,767	6,820	6,940	6,956	7,123	7,074
<b>White</b>															
Civilian noninstitutional population <sup>1</sup>	139,580	141,614	141,331	141,492	141,661	141,822	141,981	142,296	142,461	142,645	142,806	142,951	143,115	143,254	143,565
Civilian labor force	88,456	90,602	90,120	90,215	90,659	90,759	91,082	91,147	91,242	91,579	91,852	91,977	91,821	92,083	92,096
Employed	83,836	86,025	85,632	85,775	86,120	85,976	86,425	86,454	86,571	86,894	86,895	87,081	86,822	86,385	85,792
Unemployed	4,620	4,577	4,488	4,440	4,539	4,783	4,657	4,683	4,671	4,685	4,957	4,896	4,999	5,698	6,303
Unemployment rate	5.2	5.1	5.0	4.9	5.0	5.3	5.1	5.1	5.1	5.1	5.4	5.3	5.4	6.2	6.8
Not in labor force	51,124	51,011	51,313	51,213	51,107	51,161	50,900	51,149	51,219	51,066	50,954	50,975	51,294	51,171	51,469
<b>Black and other</b>															
Civilian noninstitutional population <sup>1</sup>	19,361	19,918	19,850	19,901	19,943	19,979	20,032	20,079	20,128	20,163	20,214	20,261	20,301	20,346	20,448
Civilian labor force	11,964	12,306	12,219	12,260	12,386	12,343	12,404	12,512	12,391	12,432	12,453	12,362	12,266	12,319	12,446
Employed	10,537	10,920	10,816	10,887	11,023	10,982	11,063	11,076	11,044	11,024	10,979	10,937	10,823	10,771	10,751
Unemployed	1,427	1,386	1,403	1,373	1,363	1,361	1,341	1,436	1,347	1,408	1,474	1,424	1,443	1,549	1,695
Unemployment rate	11.9	11.3	11.5	11.2	11.0	11.0	10.8	11.5	10.9	11.3	11.8	11.5	11.8	12.6	13.6
Not in labor force	7,397	7,612	7,674	7,629	7,579	7,639	7,264	7,567	7,737	7,731	7,761	7,899	8,035	8,027	8,002

<sup>1</sup>As in table 1, population figures are not seasonally adjusted.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

### 3. Selected employment indicators, seasonally adjusted

[In thousands]

Selected categories	Annual average		1979								1980				
	1978	1979	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>CHARACTERISTIC</b>															
Total employed, 16 years and over	94,373	96,945	96,495	96,652	97,184	97,004	97,504	97,474	97,608	97,912	97,804	97,953	97,656	97,154	96,537
Men	55,491	56,499	56,372	56,477	56,570	56,408	56,714	56,629	56,580	56,734	56,486	56,732	56,601	55,998	55,457
Women	38,882	40,446	40,123	40,175	40,614	40,596	40,790	40,845	41,028	41,178	41,318	41,221	41,051	41,156	41,079
Married men, spouse present	38,688	39,090	39,045	39,079	39,176	39,180	39,198	39,124	38,845	38,924	38,749	38,955	38,745	38,342	38,193
Married women, spouse present	21,881	22,724	22,547	22,664	22,908	22,869	22,937	22,919	22,940	23,027	23,111	23,178	23,202	23,080	23,144
<b>OCCUPATION</b>															
White-collar workers	47,205	49,342	49,136	49,192	49,536	49,663	49,816	49,738	49,912	49,911	50,313	50,448	50,302	50,405	50,861
Professional and technical	14,245	15,050	15,100	15,010	15,057	15,068	15,141	15,057	15,131	15,272	15,337	15,444	15,397	15,542	15,712
Managers and administrators, except farm	10,105	10,516	10,427	10,534	10,612	10,698	10,659	10,639	10,617	10,535	10,608	10,971	10,755	10,745	10,911
Salesworkers	5,951	6,163	6,101	6,103	6,163	6,145	6,181	6,261	6,362	6,346	6,452	6,185	6,113	5,988	5,981
Clerical workers	16,904	17,613	17,508	17,545	17,704	17,752	17,835	17,781	17,802	17,758	17,915	17,848	18,037	18,129	18,256
Blue-collar workers	31,531	32,066	31,904	31,992	32,051	31,849	32,209	32,205	32,110	32,302	31,882	31,754	31,670	31,127	30,243
Craft and kindred workers	12,386	12,880	12,820	12,944	12,876	12,761	12,993	13,001	12,925	13,041	12,814	12,728	12,767	12,773	12,301
Operatives, except transport	10,875	10,909	10,755	10,804	10,884	10,909	10,964	10,967	10,963	11,042	10,678	10,661	10,579	10,408	10,131
Transport equipment operatives	3,541	3,612	3,644	3,605	3,627	3,604	3,617	3,593	3,628	3,635	3,616	3,571	3,558	3,483	3,395
Nonfarm laborers	4,729	4,665	4,685	4,639	4,664	4,575	4,635	4,644	4,594	4,584	4,774	4,795	4,767	4,463	4,416
Service workers	12,839	12,834	12,772	12,805	12,766	12,621	12,859	12,937	12,899	12,970	12,979	13,080	12,981	13,034	12,930
Farmworkers	2,798	2,703	2,628	2,679	2,678	2,707	2,722	2,695	2,718	2,694	2,660	2,764	2,733	2,658	2,606
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>															
Agriculture:															
Wage and salary workers	1,419	1,413	1,424	1,423	1,419	1,384	1,399	1,381	1,475	1,451	1,428	1,417	1,449	1,370	1,365
Self-employed workers	1,607	1,580	1,519	1,539	1,558	1,614	1,642	1,602	1,622	1,596	1,554	1,648	1,600	1,591	1,590
Unpaid family workers	316	304	283	291	291	310	325	313	310	310	293	283	300	281	269
Nonagricultural industries:															
Wage and salary workers	84,253	86,540	86,232	86,309	86,454	86,421	86,912	86,982	87,020	87,384	87,578	87,419	87,221	86,741	86,257
Government	15,289	15,369	15,616	15,318	15,393	15,279	15,407	15,423	15,358	15,397	15,414	15,540	15,622	15,668	15,891
Private industries	68,966	71,171	70,616	70,991	71,061	71,142	71,505	71,559	71,662	71,987	72,163	71,879	71,599	71,072	70,365
Private households	1,363	1,240	1,195	1,235	1,219	1,211	1,313	1,261	1,211	1,228	1,132	1,178	1,115	1,123	1,219
Other industries	67,603	69,931	69,421	69,756	69,842	69,931	70,192	70,298	70,451	70,759	71,031	70,702	70,484	69,949	69,147
Self-employed workers	6,305	6,652	6,608	6,629	6,752	6,689	6,731	6,812	6,781	6,737	6,752	6,899	6,825	6,813	6,666
Unpaid family workers	472	455	460	474	519	450	449	430	417	409	379	397	376	363	445
<b>PERSONS AT WORK <sup>1</sup></b>															
Nonagricultural industries	85,693	88,133	87,785	87,749	88,769	88,855	88,723	88,638	88,617	89,180	89,454	88,985	88,585	87,660	87,910
Full-time schedules	70,543	72,647	72,496	72,243	72,915	73,053	73,159	73,204	72,997	73,137	73,223	73,110	72,749	71,807	71,206
Part time for economic reasons	3,216	3,281	3,283	3,284	3,274	3,298	3,167	3,315	3,392	3,519	3,513	3,406	3,418	3,816	3,999
Usually work full time	1,249	1,325	1,273	1,322	1,334	1,401	1,273	1,354	1,413	1,491	1,549	1,380	1,463	1,709	1,781
Usually work part time	1,967	1,956	2,010	1,962	1,940	1,897	1,894	1,961	1,979	2,028	1,964	2,026	1,955	2,107	2,217
Part time for noneconomic reasons	11,934	12,205	12,006	12,222	12,580	12,504	12,397	12,119	12,228	12,524	12,718	12,469	12,418	12,037	12,706

<sup>1</sup>Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

4. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1979								1980				
	1978	1979	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>CHARACTERISTIC</b>															
Total, 16 years and over	6.0	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9	6.2	6.0	6.2	7.0	7.7
Men, 20 years and over	4.2	4.1	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.2	4.7	4.6	4.9	5.9	6.7
Women, 20 years and over	6.0	5.7	5.7	5.7	5.5	5.9	5.5	5.7	5.6	5.7	5.8	5.7	5.7	6.3	6.5
Both sexes, 16-19 years	16.3	16.1	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0	16.3	16.5	15.9	16.2	18.5
White, total	5.2	5.1	5.0	4.9	5.0	5.3	5.1	5.1	5.1	5.1	5.4	5.3	5.4	6.2	6.8
Men, 20 years and over	3.7	3.6	3.4	3.5	3.6	3.7	3.7	3.7	3.7	3.7	4.1	4.0	4.4	5.3	6.0
Women, 20 years and over	5.2	5.0	5.0	4.9	4.8	5.2	4.8	5.0	4.9	5.0	5.1	5.2	4.9	5.5	5.8
Both sexes, 16-19 years	13.9	13.9	14.2	13.2	13.8	14.8	14.3	14.1	13.9	13.9	14.0	13.8	13.8	14.6	14.6
Black and other, total	11.9	11.3	11.5	11.2	11.0	11.0	10.8	11.5	10.9	11.3	11.8	11.5	11.8	12.6	13.6
Men, 20 years and over	8.6	8.4	8.4	8.1	8.4	8.1	8.0	8.6	8.4	8.6	9.6	9.2	9.3	10.9	12.6
Women, 20 years and over	10.6	10.1	10.0	10.4	10.0	10.3	9.8	10.2	9.5	10.0	10.0	9.0	10.5	11.4	10.9
Both sexes, 16-19 years	36.3	33.5	36.1	33.5	31.5	32.6	32.3	35.1	32.8	34.3	34.6	37.9	33.0	29.8	36.3
Married men, spouse present	2.8	2.7	2.5	2.7	2.8	2.9	2.9	2.9	2.9	2.8	3.4	3.1	3.4	4.1	4.9
Married women, spouse present	5.5	5.1	5.2	5.1	4.9	5.3	4.8	5.2	4.8	5.0	5.2	5.4	5.3	5.7	6.1
Women who head families	8.5	8.3	8.6	9.0	8.1	7.9	7.7	8.4	8.4	8.4	9.2	8.5	8.7	9.3	8.4
Full-time workers	5.5	5.3	5.2	5.2	5.3	5.4	5.3	5.4	5.4	5.4	5.7	5.6	5.8	6.6	7.4
Part-time workers	9.0	8.7	9.3	8.6	8.3	8.8	8.4	8.9	8.3	8.5	8.7	8.9	8.3	8.9	8.8
Unemployed 15 weeks and over	1.4	1.2	1.2	1.1	1.0	1.1	1.1	1.2	1.1	1.2	1.3	1.2	1.3	1.6	1.7
Labor force time lost <sup>1</sup>	6.5	6.3	6.3	6.3	6.4	6.4	6.2	6.4	6.4	6.4	6.7	6.6	6.8	7.5	8.3
<b>OCCUPATION</b>															
White-collar workers	3.5	3.3	3.2	3.4	3.3	3.5	3.3	3.4	3.2	3.3	3.4	3.4	3.3	3.7	3.7
Professional and technical	2.6	2.4	2.1	2.5	2.5	2.5	2.4	2.7	2.4	2.3	2.2	2.3	2.3	2.4	2.6
Managers and administrators, except farm	2.1	2.1	2.2	2.1	2.0	2.3	2.2	2.2	1.9	2.0	1.9	2.2	2.4	2.6	2.4
Salesworkers	4.1	3.9	4.0	4.4	3.5	4.0	3.8	3.8	3.7	3.8	4.4	4.5	4.0	4.7	4.4
Clerical workers	4.9	4.6	4.5	4.6	4.5	4.9	4.5	4.7	4.4	4.6	4.8	4.7	4.5	5.1	5.3
Blue-collar workers	6.9	6.9	6.8	6.6	6.8	7.3	7.1	7.2	7.5	7.2	8.0	7.7	8.0	9.7	11.5
Craft and kindred workers	4.6	4.5	4.2	4.3	4.4	4.7	4.3	4.6	4.9	4.4	4.9	4.8	5.4	6.7	8.0
Operatives, except transport	8.1	8.4	8.2	7.7	8.3	8.9	9.0	9.1	9.0	9.0	9.9	9.2	9.3	11.6	13.8
Transport equipment operatives	5.2	5.4	5.4	5.7	5.1	6.2	6.1	5.6	5.2	5.0	6.9	6.7	6.6	8.9	10.5
Nonfarm laborers	10.7	10.8	11.1	10.6	11.0	11.3	11.0	10.7	12.2	12.2	12.3	12.0	13.0	14.1	16.2
Service workers	7.4	7.1	7.2	7.2	7.1	7.1	6.7	6.8	6.6	6.6	6.9	6.9	7.1	8.0	8.1
Farmworkers	3.8	3.8	3.6	3.2	4.2	3.9	4.1	4.3	4.5	4.3	4.4	3.9	4.0	5.0	4.2
<b>INDUSTRY</b>															
Nonagricultural private wage and salary workers <sup>2</sup>	5.9	5.7	5.7	5.6	5.7	6.0	5.8	5.9	5.8	5.8	6.2	6.0	6.2	7.1	8.3
Construction	10.6	10.2	10.0	10.0	10.0	10.1	9.6	9.9	10.2	10.3	10.8	10.5	13.0	15.1	16.5
Manufacturing	5.5	5.5	5.4	5.4	5.7	5.9	6.0	6.0	5.9	5.9	6.7	6.4	6.5	7.9	9.9
Durable goods	4.9	5.0	4.4	4.9	5.4	5.4	5.3	5.5	5.6	5.5	6.7	6.3	6.4	8.3	11.2
Nondurable goods	6.3	6.4	6.9	6.3	6.2	6.8	7.1	6.8	6.3	6.4	6.8	6.7	6.7	7.4	8.0
Transportation and public utilities	3.7	3.7	3.6	3.1	3.8	3.7	4.0	3.8	4.2	4.1	4.4	4.4	3.8	4.6	5.2
Wholesale and retail trade	6.9	6.5	6.4	6.7	6.3	6.5	6.4	6.4	6.5	6.4	6.6	6.4	6.3	7.0	8.0
Finance and service industries	5.1	4.9	4.9	4.7	4.9	5.2	4.7	4.9	4.6	4.7	4.6	4.6	4.9	5.1	5.7
Government workers	3.9	3.7	3.6	3.6	3.6	3.7	3.3	4.0	3.6	3.6	3.8	4.0	4.2	4.4	3.5
Agricultural wage and salary workers	8.8	9.1	9.3	7.8	9.7	9.9	10.0	9.9	10.1	9.4	10.3	9.2	10.2	11.9	9.7

<sup>1</sup> Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

<sup>2</sup> Includes mining, not shown separately.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

### 5. Unemployment rates, by sex and age, seasonally adjusted

Sex and age	Annual average		1979									1980				
	1978	1979	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
Total, 16 years and over .....	6.0	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9	6.2	6.0	6.2	7.0	7.7	
16 to 19 years .....	16.3	16.1	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0	16.3	16.5	15.9	16.2	18.5	
16 to 17 years .....	19.3	18.1	18.9	17.5	17.3	18.5	16.9	18.4	17.3	18.0	19.0	18.7	17.4	18.7	19.8	
18 to 19 years .....	14.2	14.6	15.0	14.4	14.5	15.4	15.6	15.0	14.7	14.5	14.0	15.1	14.7	14.4	18.0	
20 to 24 years .....	9.5	9.0	8.9	8.9	9.1	9.3	9.2	9.6	8.8	9.8	10.1	9.5	9.7	11.4	12.4	
25 years and over .....	4.0	3.9	3.9	3.9	3.9	4.0	3.9	4.0	4.0	3.8	4.2	4.1	4.4	5.0	5.5	
25 to 54 years .....	4.2	4.1	4.0	4.1	4.0	4.2	4.1	4.2	4.3	4.1	4.4	4.5	4.7	5.4	6.0	
55 years and over .....	3.2	3.0	3.1	2.9	3.2	3.1	2.9	3.0	2.7	2.7	3.5	2.8	2.8	3.4	3.4	
Men, 16 years and over .....	5.2	5.1	5.0	4.9	5.1	5.2	5.2	5.2	5.2	5.2	5.7	5.5	5.7	6.7	7.8	
16 to 19 years .....	15.7	15.8	16.1	14.5	15.4	16.3	16.1	15.7	15.8	15.6	16.2	15.6	14.8	16.1	19.5	
16 to 17 years .....	19.2	17.9	18.9	16.8	16.1	18.0	16.7	17.1	17.8	17.9	19.0	18.0	15.9	18.3	21.8	
18 to 19 years .....	13.2	14.2	14.0	14.0	14.8	15.1	15.3	14.4	14.0	13.6	13.9	14.1	14.0	14.2	19.3	
20 to 24 years .....	9.1	8.6	8.2	8.3	8.8	8.8	8.8	9.5	8.4	9.4	10.4	9.9	10.4	12.3	13.8	
25 years and over .....	3.3	3.3	3.1	3.2	3.3	3.4	3.3	3.4	3.5	3.2	3.7	3.6	3.9	4.7	5.5	
25 to 54 years .....	3.4	3.4	3.2	3.2	3.4	3.5	3.6	3.5	3.8	3.4	3.8	3.8	4.2	5.0	5.8	
55 years and over .....	3.1	2.9	2.8	3.1	3.3	3.1	2.8	2.8	2.6	2.6	3.5	2.6	2.7	3.4	3.8	
Women, 16 years and over .....	7.2	6.8	6.9	6.8	6.6	7.0	6.6	6.9	6.6	6.8	6.8	6.8	6.8	7.3	7.5	
16 to 19 years .....	17.0	16.4	16.9	16.5	16.2	17.0	16.4	17.2	16.1	16.4	16.3	17.6	17.3	16.3	17.3	
16 to 17 years .....	19.5	18.3	18.8	18.3	18.6	19.0	17.2	19.8	16.7	18.0	19.1	19.5	19.2	19.1	17.6	
18 to 19 years .....	15.3	15.0	16.0	14.9	14.2	15.7	15.9	15.6	15.5	15.5	14.2	16.2	15.6	14.6	16.6	
20 to 24 years .....	10.1	9.6	9.7	9.7	9.4	9.8	9.6	9.7	9.3	10.2	9.8	9.1	9.0	10.2	10.8	
25 years and over .....	5.1	4.8	4.9	4.8	4.7	4.9	4.6	4.9	4.7	4.7	4.9	4.9	5.0	5.5	5.6	
25 to 54 years .....	5.4	5.2	5.2	5.2	5.0	5.3	5.0	5.2	5.0	5.1	5.2	5.4	5.5	6.0	6.1	
55 years and over .....	3.3	3.2	3.6	2.8	3.1	3.2	2.9	3.4	2.9	2.9	3.4	3.0	2.9	3.4	2.8	

### 6. Unemployed persons, by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	1979									1980				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
<b>NUMBER OF UNEMPLOYED</b>														
Lost last job .....	2,356	2,449	2,526	2,680	2,632	2,731	2,729	2,728	2,988	2,907	3,047	3,611	4,625	
On layoff .....	725	816	797	915	855	929	987	944	1,019	1,031	1,129	1,424	2,117	
Other job losers .....	1,631	1,633	1,729	1,765	1,777	1,802	1,742	1,784	1,969	1,876	1,918	2,188	2,508	
Left last job .....	940	857	846	875	825	835	845	800	779	813	788	926	898	
Reentered labor force .....	1,767	1,753	1,762	1,788	1,760	1,762	1,698	1,771	1,797	1,784	1,803	1,967	1,822	
Seeking first job .....	824	781	726	745	801	804	736	858	811	827	805	743	863	
<b>PERCENT DISTRIBUTION</b>														
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Job losers .....	40.0	41.9	43.1	44.0	43.7	44.5	45.4	44.3	46.9	45.9	47.3	49.8	56.3	
On layoff .....	12.3	14.0	13.6	15.0	14.2	15.2	16.4	15.3	16.0	16.3	17.5	19.6	25.8	
Other job losers .....	27.7	28.0	29.5	29.0	29.5	29.4	29.0	29.0	30.9	29.6	29.8	30.2	30.6	
Job leavers .....	16.0	14.7	14.4	14.4	13.7	13.6	14.1	13.0	12.2	12.8	12.2	12.8	10.9	
Reentrants .....	30.0	30.0	30.1	29.4	29.2	28.7	28.3	28.8	28.2	28.2	28.0	27.1	22.2	
New entrants .....	14.0	13.4	12.4	12.2	13.3	13.1	12.3	13.9	12.7	13.1	12.5	10.3	10.5	
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>														
Job losers .....	2.3	2.4	2.5	2.6	2.5	2.6	2.6	2.6	2.9	2.8	2.9	3.5	4.4	
Job leavers .....	.9	.8	.8	.8	.8	.8	.8	.8	.7	.8	.8	.9	.9	
Reentrants .....	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.9	1.7	
New entrants .....	.8	.8	.7	.7	.8	.8	.7	.8	.8	.8	.8	.7	.8	

### 7. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1979									1980				
	1978	1979	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
Less than 5 weeks .....	2,793	2,869	2,823	2,880	2,820	3,168	2,778	2,955	2,919	2,916	3,184	2,995	2,995	3,309	3,333	
5 to 14 weeks .....	1,875	1,892	1,919	1,808	1,934	1,738	2,035	1,963	1,869	1,966	1,907	2,081	2,169	2,391	2,922	
15 weeks and over .....	1,379	1,202	1,212	1,152	1,067	1,185	1,152	1,195	1,191	1,230	1,334	1,286	1,363	1,629	1,766	
15 to 26 weeks .....	746	684	705	656	615	658	644	678	660	711	795	790	776	953	1,027	
27 weeks and over .....	633	518	507	496	452	527	508	517	531	519	539	496	587	676	739	
Average (mean) duration, in weeks .....	11.9	10.8	10.9	10.5	10.1	10.7	10.7	10.5	10.6	10.5	10.5	10.7	11.0	11.3	11.7	

NOTE: The monthly data in these tables have been revised to reflect seasonal experience through 1979.

## EMPLOYMENT, HOURS, AND EARNINGS DATA FROM ESTABLISHMENT SURVEYS

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by 166,000 establishments representing all industries except agriculture. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

LABOR TURNOVER DATA in this section are compiled from personnel records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies. A sample of 40,000 establishments represents all industries in the manufacturing and mining sectors of the economy.

### Definitions

**Employed persons** are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

**Production workers** in manufacturing include blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 14-20 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in transportation and public utilities, in wholesale and retail trade, in finance, insurance, and real estate, and in services industries. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

**Earnings** are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to eliminate the effects of price change. The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the effects of two types of changes that are unrelated to underlying wage-rate developments: fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes and seasonal factors in the proportion of workers in high-wage and low-wage industries. **Spendable earnings** are earnings from which estimated social security and Federal income taxes have been deducted. The

Bureau of Labor Statistics computes spendable earnings from gross weekly earnings for only two illustrative cases: (1) a worker with no dependents and (2) a married worker with three dependents.

**Hours** represent the average weekly hours of production or nonsupervisory workers for which pay was received and are different from standard or scheduled hours. **Overtime hours** represent the portion of gross average weekly hours which were in excess of regular hours and for which overtime premiums were paid.

**Labor turnover** is the movement of all wage and salary workers from one employment status to another. **Accession rates** indicate the average number of persons added to a payroll in a given period per 100 employees; **separation rates** indicate the average number dropped from a payroll per 100 employees. Although month-to-month changes in employment can be calculated from the labor turnover data, the results are not comparable with employment data from the employment and payroll survey. The labor turnover survey measures changes during the calendar month while the employment and payroll survey measures changes from midmonth to midmonth.

### Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of June 1980 data, published in the August 1980 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Complete comparable historical unadjusted and seasonally adjusted data are published in a Supplement to Employment and Earnings (unadjusted data from April 1977 through March 1980 and seasonally adjusted data from January 1974 through March 1980) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

Data on recalls were shown for the first time in tables 12 and 13 in the January 1978 issue of the *Review*. For a detailed discussion of the recalls series, along with historical data, see "New Series on Recalls from the Labor Turnover Survey," *Employment and Earnings*, December 1977, pp. 10-19.

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20. See also *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976).

The formulas used to construct the spendable average weekly earnings series reflect the latest provisions of the Federal income tax and social security tax laws. For the spendable average weekly earnings formulas for the years 1978-80, see *Employment and Earnings*, March 1980, pp. 10-11. Real earnings data are adjusted using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

## 8. Employment by industry, 1950-79

[Nonagricultural payroll data, in thousands]

Year	Total	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government		
											Total	Federal	State and local
1950	45,197	901	2,364	15,241	4,034	9,386	2,635	6,751	1,888	5,357	6,026	1,928	4,098
1951	47,819	929	2,637	16,393	4,226	9,742	2,727	7,015	1,956	5,547	6,389	2,302	4,087
1952	48,793	898	2,668	16,632	4,248	10,004	2,812	7,192	2,035	5,699	6,609	2,420	4,188
1953	50,202	866	2,659	17,549	4,290	10,247	2,854	7,393	2,111	5,835	6,645	2,305	4,340
1954	48,990	791	2,646	16,314	4,084	10,235	2,867	7,368	2,200	5,969	6,751	2,188	4,563
1955	50,641	792	2,839	16,882	4,141	10,535	2,926	7,610	2,298	6,240	6,914	2,187	4,727
1956	52,369	822	3,039	17,243	4,244	10,858	3,018	7,840	2,389	6,497	7,278	2,209	5,069
1957	52,853	828	2,962	17,174	4,241	10,886	3,028	7,858	2,438	6,708	7,616	2,217	5,399
1958	51,324	751	2,817	15,945	3,976	10,750	2,980	7,770	2,481	6,765	7,839	2,191	5,648
1959 <sup>1</sup>	53,268	732	3,004	16,675	4,011	11,127	3,082	8,045	2,549	7,087	8,083	2,233	5,850
1960	54,189	712	2,926	16,796	4,004	11,391	3,143	8,248	2,629	7,378	8,353	2,270	6,083
1961	53,999	672	2,859	16,326	3,903	11,337	3,133	8,204	2,688	7,620	8,594	2,279	6,315
1962	55,549	650	2,948	16,853	3,906	11,566	3,198	8,368	2,754	7,982	8,990	2,340	6,550
1963	56,653	635	3,010	16,995	3,903	11,778	3,248	8,530	2,830	8,277	9,225	2,358	6,868
1964	58,283	634	3,097	17,274	3,951	12,160	3,337	8,823	2,911	8,660	9,596	2,348	7,248
1965	60,765	632	3,232	18,062	4,036	12,716	3,466	9,250	2,977	9,036	10,074	2,378	7,696
1966	63,901	627	3,317	19,214	4,158	13,245	3,597	9,648	3,058	9,498	10,784	2,564	8,220
1967	65,803	613	3,248	19,447	4,268	13,606	3,689	9,917	3,185	10,045	11,391	2,719	8,672
1968	67,897	606	3,350	19,781	4,318	14,099	3,779	10,320	3,337	10,567	11,839	2,737	9,102
1969	70,384	619	3,575	20,167	4,442	14,705	3,907	10,798	3,512	11,169	12,195	2,758	9,437
1970	70,880	623	3,588	19,367	4,515	15,040	3,993	11,047	3,645	11,548	12,554	2,731	9,823
1971	71,214	609	3,704	18,623	4,476	15,352	4,001	11,351	3,772	11,797	12,881	2,696	10,185
1972	73,675	628	3,889	19,151	4,541	15,949	4,113	11,836	3,908	12,276	13,334	2,684	10,649
1973	76,790	642	4,097	20,154	4,656	16,607	4,277	12,329	4,046	12,857	13,732	2,663	11,068
1974	78,265	697	4,020	20,077	4,725	16,987	4,433	12,554	4,148	13,441	14,170	2,724	11,446
1975	76,945	752	3,525	18,323	4,542	17,060	4,415	12,645	4,165	13,892	14,686	2,748	11,937
1976	79,382	779	3,576	18,997	4,582	17,755	4,546	13,209	4,271	14,551	14,871	2,733	12,138
1977	82,471	813	3,851	19,682	4,713	18,516	4,708	13,808	4,467	15,303	15,127	2,727	12,399
1978 <sup>1</sup>	86,697	851	4,229	20,505	4,923	19,542	4,969	14,573	4,724	16,252	15,672	2,753	12,919
1979 <sup>1</sup>	89,886	960	4,483	21,062	5,141	20,269	5,204	15,066	4,974	17,078	15,920	2,773	13,147

<sup>1</sup>Data include Alaska and Hawaii beginning in 1959.

## 9. Employment by State

[Nonagricultural payroll data, in thousands]

State	May 1979	Apr. 1980	May 1980 <sup>P</sup>	State	May 1979	Apr. 1980	May 1980 <sup>P</sup>
Alabama	1,362.1	1,365.2	1,360.2	Montana	285.2	280.6	286.5
Alaska	169.3	165.0	.....	Nebraska	632.7	628.6	636.4
Arizona	971.0	1,008.3	1,003.1	Nevada	380.5	397.1	398.6
Arkansas	755.9	754.5	750.4	New Hampshire	377.8	373.8	.....
California	9,623.9	9,804.2	9,803.8	New Jersey	3,031.8	3,029.1	3,047.5
Colorado	1,207.7	1,251.0	1,252.1	New Mexico	462.6	473.5	477.7
Connecticut	1,403.4	1,411.1	1,415.0	New York	7,196.3	7,096.5	7,198.6
Delaware	258.4	254.6	259.5	North Carolina	2,370.8	2,426.1	2,420.8
District of Columbia	615.7	618.6	620.6	North Dakota	244.4	246.0	250.7
Florida	3,359.2	3,538.0	3,518.1	Ohio	4,523.4	4,445.4	4,429.9
Georgia	2,116.1	2,137.0	2,130.3	Oklahoma	1,085.2	1,128.6	1,133.4
Hawaii	392.3	410.5	408.7	Oregon	1,048.9	1,041.4	1,032.6
Idaho	338.7	325.9	.....	Pennsylvania	4,863.0	4,816.6	4,830.5
Illinois <sup>1</sup>	4,871.0	4,798.1	4,812.2	Rhode Island	399.8	393.9	392.3
Indiana	2,273.5	2,219.2	2,232.7	South Carolina	1,182.2	1,202.0	1,200.1
Iowa	1,142.7	1,129.2	1,125.3	South Dakota	242.7	238.4	243.3
Kansas	955.1	954.1	955.3	Tennessee	1,787.3	1,787.1	1,789.7
Kentucky	1,260.0	1,223.7	1,229.1	Texas	5,582.7	5,758.9	5,762.2
Louisiana	1,491.9	1,524.5	1,517.4	Utah	546.4	565.0	566.9
Maine	416.8	412.0	415.9	Vermont	195.4	196.7	197.4
Maryland	1,631.1	1,632.8	1,639.9	Virginia	2,101.6	2,108.1	2,118.2
Massachusetts	2,605.6	2,663.5	2,667.9	Washington	1,579.5	1,615.8	1,621.4
Michigan	3,682.2	3,444.4	3,426.8	West Virginia	644.5	633.4	635.9
Minnesota	1,772.2	1,776.6	1,795.8	Wisconsin	1,960.1	1,973.5	1,976.0
Mississippi	842.7	836.7	830.5	Wyoming	200.3	211.8	215.9
Missouri	2,022.8	1,999.0	1,989.4	Virgin Islands	36.5	37.2	36.8

**10. Employment by industry division and major manufacturing group**

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1979							1980					
	1978	1979	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>TOTAL</b>	86,697	89,886	90,914	90,018	90,093	90,629	91,062	91,288	91,394	89,630	89,781	90,316	90,761	90,988	91,090
<b>MINING</b>	851	960	971	979	989	983	984	986	985	982	987	996	1,006	1,024	1,040
<b>CONSTRUCTION</b>	4,229	4,483	4,708	4,813	4,863	4,801	4,792	4,698	4,536	4,194	4,109	4,150	4,311	4,477	4,609
<b>MANUFACTURING</b>	20,505	21,062	21,331	21,054	21,096	21,295	21,193	21,055	20,987	20,777	20,730	20,793	20,533	20,251	20,156
Production workers	14,734	15,085	15,328	15,026	15,048	15,265	15,170	15,034	14,964	14,738	14,678	14,727	14,466	14,170	14,087
<b>Durable goods</b>	12,274	12,772	12,965	12,797	12,683	12,891	12,824	12,744	12,733	12,600	12,599	12,647	12,414	12,153	12,022
Production workers	8,805	9,120	9,299	9,105	8,979	9,190	9,131	9,054	9,040	8,885	8,869	8,909	8,672	8,410	8,285
Lumber and wood products	754.7	766.1	791.3	785.4	788.2	785.0	780.0	757.2	737.4	717.4	718.9	716.9	678.4	656.8	666.4
Furniture and fixtures	494.1	499.3	496.1	486.5	497.1	499.6	502.5	503.1	501.8	498.0	494.6	494.1	488.7	468.5	455.4
Stone, clay, and glass products	698.2	709.7	732.0	726.0	726.5	721.6	718.6	710.3	697.4	678.2	674.7	679.0	675.5	667.7	662.7
Primary metal industries	1,214.9	1,250.2	1,281.1	1,267.4	1,250.6	1,231.4	1,222.6	1,209.9	1,207.2	1,205.1	1,203.7	1,193.8	1,148.8	1,107.7	
Fabricated metal products	1,672.6	1,723.7	1,746.8	1,711.8	1,711.7	1,731.4	1,733.8	1,725.2	1,696.8	1,699.4	1,703.8	1,671.4	1,621.4	1,588.4	
Machinery, except electrical	2,325.5	2,481.6	2,511.4	2,504.9	2,489.7	2,513.8	2,465.1	2,458.7	2,471.6	2,538.5	2,536.5	2,539.9	2,523.5	2,506.8	2,478.7
Electric and electronic equipment	2,006.1	2,124.3	2,144.4	2,127.6	2,105.7	2,152.8	2,162.0	2,164.0	2,171.9	2,162.9	2,157.7	2,167.7	2,156.2	2,120.1	2,101.9
Transportation equipment	2,002.8	2,082.8	2,114.2	2,063.0	1,965.5	2,087.4	2,076.5	2,044.2	2,079.3	1,975.8	1,983.1	2,005.6	1,891.1	1,836.7	1,836.1
Instruments and related products	653.1	688.9	696.5	691.2	693.7	691.6	694.6	694.9	698.8	697.7	700.5	703.6	702.2	700.4	702.9
Miscellaneous manufacturing	451.5	445.6	451.6	433.2	454.5	457.1	459.7	455.5	439.4	427.7	428.8	432.9	433.0	425.9	422.1
<b>Nondurable goods</b>	8,231	8,290	8,366	8,257	8,413	8,404	8,369	8,311	8,254	8,177	8,131	8,146	8,119	8,098	8,134
Production workers	5,929	5,965	6,029	5,921	6,069	6,075	6,039	5,980	5,924	5,853	5,809	5,818	5,794	5,760	5,802
Food and kindred products	1,724.1	1,728.1	1,727.5	1,749.5	1,828.8	1,834.5	1,781.8	1,736.3	1,706.2	1,659.9	1,644.1	1,641.1	1,626.2	1,637.0	1,677.6
Tobacco manufactures	70.6	69.9	65.0	65.0	73.8	77.5	77.4	68.6	70.8	69.1	67.1	64.4	62.9	62.5	64.3
Textile mill products	899.1	888.5	897.1	872.3	866.8	885.0	886.1	890.4	889.7	884.0	884.6	886.9	882.1	869.3	861.7
Apparel and other textile products	1,332.3	1,312.5	1,335.2	1,276.0	1,308.1	1,308.8	1,317.3	1,305.8	1,287.1	1,282.0	1,305.8	1,318.4	1,304.2	1,298.9	1,314.5
Paper and allied products	698.7	706.7	716.9	711.8	715.6	710.5	709.3	707.8	705.9	703.5	701.9	701.8	698.8	692.1	693.6
Printing and publishing	1,192.0	1,239.5	1,240.2	1,242.3	1,242.5	1,243.0	1,251.4	1,262.0	1,268.5	1,266.3	1,270.4	1,272.1	1,270.4	1,268.0	1,267.3
Chemicals and allied products	1,095.5	1,110.7	1,124.8	1,120.9	1,119.0	1,112.7	1,113.7	1,113.9	1,114.2	1,113.1	1,112.1	1,118.1	1,120.6	1,119.1	1,113.3
Petroleum and coal products	207.7	210.0	212.9	213.9	214.1	213.7	213.5	212.6	210.6	208.6	155.9	153.1	173.6	204.6	207.0
Rubber and miscellaneous plastics products	754.5	775.6	788.1	776.0	774.1	770.2	770.8	765.9	755.6	750.3	746.3	746.5	737.2	703.5	689.8
Leather and leather products	256.8	248.0	258.5	228.8	250.4	247.9	247.9	247.6	245.2	240.3	242.6	243.4	243.3	242.5	244.7
<b>TRANSPORTATION AND PUBLIC UTILITIES</b>	4,923	5,141	5,219	5,187	5,197	5,229	5,233	5,243	5,240	5,136	5,130	5,143	5,147	5,162	5,194
<b>WHOLESALE AND RETAIL TRADE</b>	19,542	20,269	20,321	20,254	20,296	20,425	20,474	20,756	21,114	20,325	20,155	20,226	20,373	20,506	20,525
<b>WHOLESALE TRADE</b>	4,969	5,204	5,245	5,243	5,243	5,239	5,266	5,282	5,264	5,241	5,250	5,269	5,265	5,263	5,283
<b>RETAIL TRADE</b>	14,573	15,066	15,076	15,011	15,053	15,186	15,208	15,474	15,850	15,084	14,905	14,957	15,108	15,243	15,242
<b>FINANCE, INSURANCE, AND REAL ESTATE</b>	4,724	4,974	5,019	5,048	5,068	5,015	5,025	5,039	5,047	5,052	5,061	5,085	5,104	5,139	5,205
<b>SERVICES</b>	16,252	17,078	17,265	17,324	17,315	17,238	17,297	17,284	17,271	17,135	17,317	17,478	17,636	17,756	17,812
<b>GOVERNMENT</b>	15,672	15,920	16,080	15,359	15,269	15,643	16,064	16,227	16,214	16,029	16,292	16,445	16,651	16,673	16,549
Federal	2,753	2,773	2,824	2,838	2,844	2,751	2,756	2,760	2,770	2,763	2,803	2,869	3,103	3,097	3,121
State and local	12,919	13,147	13,256	12,521	12,425	12,892	13,308	13,467	13,444	13,266	13,489	13,576	13,548	13,576	13,428

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment

data in this table may differ from data published earlier. See technical note, page 68.



### 11. Employment by industry division and major manufacturing group, seasonally adjusted

[Nonagricultural payroll data, in thousands]

Industry division and group	1979							1980					
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May P	June P
<b>TOTAL</b> .....	89,909	90,054	90,222	90,283	90,441	90,552	90,678	91,031	91,186	91,144	90,951	90,602	90,088
<b>MINING</b> .....	953	963	974	976	982	985	992	999	1,007	1,009	1,012	1,023	1,021
<b>CONSTRUCTION</b> .....	4,472	4,491	4,499	4,507	4,529	4,553	4,615	4,745	4,659	4,529	4,467	4,441	4,377
<b>MANUFACTURING</b> .....	21,132	21,128	21,055	21,071	21,043	20,966	20,983	20,971	20,957	20,938	20,642	20,282	19,969
Production workers .....	15,150	15,140	15,046	15,058	15,025	14,948	14,956	14,911	14,871	14,850	14,550	14,181	13,925
<b>Durable goods</b> .....	12,837	12,841	12,782	12,822	12,764	12,693	12,706	12,681	12,715	12,707	12,442	12,139	11,905
Production workers .....	9,183	9,173	9,103	9,129	9,069	9,001	9,009	8,953	8,967	8,961	8,686	8,386	8,183
Lumber and wood products .....	768	766	764	767	768	757	746	743	745	737	689	656	646
Furniture and fixtures .....	496	499	499	497	498	498	497	497	495	494	491	471	455
Stone, clay, and glass products .....	711	709	710	708	709	704	704	705	705	700	680	662	644
Primary metal industries .....	1,262	1,260	1,250	1,242	1,236	1,230	1,219	1,215	1,214	1,209	1,193	1,143	1,091
Fabricated metal products .....	1,732	1,726	1,713	1,723	1,723	1,722	1,718	1,707	1,711	1,711	1,678	1,621	1,574
Machinery, except electrical .....	2,502	2,513	2,509	2,518	2,478	2,460	2,459	2,532	2,529	2,530	2,518	2,514	2,469
Electric and electronic equipment .....	2,136	2,140	2,109	2,140	2,149	2,150	2,163	2,169	2,168	2,176	2,167	2,126	2,094
Transportation equipment .....	2,095	2,092	2,089	2,090	2,063	2,033	2,057	1,970	2,006	2,006	1,885	1,820	1,820
Instruments and related products .....	690	691	693	693	696	695	698	699	702	705	703	701	696
Miscellaneous manufacturing .....	445	445	446	444	444	444	445	444	440	439	438	425	416
<b>Nondurable goods</b> .....	8,295	8,287	8,273	8,249	8,279	8,273	8,277	8,290	8,242	8,231	8,200	8,143	8,064
Production workers .....	5,967	5,967	5,943	5,929	5,956	5,947	5,947	5,958	5,904	5,889	5,864	5,795	5,742
Food and kindred products .....	1,728	1,722	1,722	1,712	1,723	1,725	1,724	1,716	1,713	1,704	1,690	1,689	1,678
Tobacco manufactures .....	71	71	70	70	70	64	66	67	68	68	69	70	71
Textile mill products .....	887	886	883	881	885	887	889	888	888	888	884	868	851
Apparel and other textile products .....	1,311	1,316	1,305	1,298	1,302	1,294	1,296	1,305	1,313	1,316	1,302	1,291	1,291
Paper and allied products .....	706	709	708	708	709	708	708	710	709	708	702	691	683
Printing and publishing .....	1,238	1,243	1,244	1,245	1,251	1,259	1,261	1,269	1,273	1,274	1,272	1,268	1,265
Chemicals and allied products .....	1,115	1,112	1,110	1,110	1,114	1,116	1,118	1,121	1,121	1,123	1,123	1,119	1,103
Petroleum and coal products .....	209	208	209	211	212	212	213	214	161	157	175	205	203
Rubber and miscellaneous plastics products .....	779	781	774	767	766	762	756	755	751	749	740	704	682
Leather and leather products .....	251	239	248	247	247	246	246	245	245	244	243	238	237
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	5,168	5,156	5,182	5,185	5,203	5,216	5,212	5,202	5,198	5,202	5,178	5,162	5,143
<b>WHOLESALE AND RETAIL TRADE</b> .....	20,217	20,254	20,301	20,352	20,414	20,479	20,448	20,529	20,637	20,610	20,531	20,496	20,422
<b>WHOLESALE TRADE</b> .....	5,205	5,214	5,222	5,228	5,246	5,269	5,251	5,278	5,302	5,301	5,286	5,268	5,241
<b>RETAIL TRADE</b> .....	15,012	15,040	15,079	15,124	15,168	15,210	15,197	15,251	15,335	15,309	15,245	15,228	15,181
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	4,970	4,989	5,019	5,017	5,033	5,049	5,064	5,091	5,101	5,115	5,119	5,139	5,153
<b>SERVICES</b> .....	17,074	17,114	17,152	17,192	17,264	17,308	17,362	17,462	17,540	17,580	17,618	17,668	17,618
<b>GOVERNMENT</b> .....	15,923	15,959	16,040	15,983	15,973	15,996	16,002	16,032	16,087	16,161	16,384	16,391	16,385
Federal .....	2,783	2,784	2,811	2,762	2,769	2,773	2,773	2,791	2,826	2,886	3,115	3,094	3,077
State and local .....	13,140	13,175	13,229	13,221	13,204	13,223	13,229	13,241	13,261	13,275	13,269	13,297	13,308

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and update seasonal adjustment factors. Because of these revisions, establishment

data in this table may differ from data published earlier. See technical note, page 68.

**12. Labor turnover rates in manufacturing, 1977 to date**

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total accessions</b>													
1977	4.0	3.7	3.7	4.0	3.8	4.6	4.9	4.3	5.3	4.6	3.9	3.1	2.4
1978	4.1	3.8	3.2	3.8	4.0	4.7	4.9	4.4	5.4	4.9	4.3	3.3	2.4
1979	4.0	4.0	3.4	3.8	3.9	4.7	4.8	4.3	5.0	4.5	4.1	3.0	2.2
1980	...	3.8	3.3	3.5	3.1	P 3.3	...	...	...	...	...	...	...
<b>New hires</b>													
1977	2.8	2.2	2.1	2.6	2.7	3.5	3.7	3.0	4.0	3.5	3.0	2.2	1.6
1978	3.1	2.5	2.2	2.7	2.9	3.6	3.9	3.3	4.2	3.9	3.5	2.6	1.7
1979	2.9	2.8	2.5	2.8	2.9	3.6	3.8	3.1	3.7	3.4	3.1	2.2	1.5
1980	...	2.4	2.2	2.3	2.1	P 2.1	...	...	...	...	...	...	...
<b>Recalls</b>													
1977	.9	1.2	1.3	1.1	.9	.8	.8	.9	1.0	.8	.6	.6	.6
1978	.7	1.0	.7	.8	.8	.8	.7	.8	.9	.7	.6	.5	.5
1979	.7	.9	.7	.7	.7	.8	.7	.9	.9	.8	.7	.5	.5
1980	...	1.1	.9	.9	.8	P 1.0	...	...	...	...	...	...	...
<b>Total separations</b>													
1977	3.8	3.9	3.4	3.4	3.4	3.5	3.5	4.3	5.1	4.9	3.8	3.4	3.4
1978	3.9	3.6	3.1	3.5	3.6	3.7	3.8	4.1	5.3	4.9	4.1	3.5	3.4
1979	4.0	3.8	3.2	3.6	3.7	3.8	3.9	4.3	5.7	4.7	4.2	3.8	3.5
1980	...	4.1	3.5	3.7	4.7	P 4.8	...	...	...	...	...	...	...
<b>Quits</b>													
1977	1.8	1.4	1.3	1.6	1.7	1.9	1.9	1.9	3.1	2.8	1.9	1.5	1.2
1978	2.1	1.5	1.4	1.8	2.0	2.1	2.2	2.1	3.5	3.1	2.3	1.7	1.3
1979	2.0	1.8	1.6	1.9	2.0	2.1	2.1	2.0	3.3	2.7	2.1	1.6	1.1
1980	...	1.6	1.5	1.6	1.5	P 1.5	...	...	...	...	...	...	...
<b>Layoffs</b>													
1977	1.1	1.7	1.4	1.0	.9	.8	.8	1.5	1.0	1.1	1.1	1.1	1.5
1978	.9	1.2	.9	.9	.8	.7	.7	1.1	.8	.8	.9	1.0	1.4
1979	1.1	1.1	.8	.8	.9	.7	.9	1.4	1.3	1.1	1.2	1.5	1.7
1980	...	1.6	1.2	1.3	2.3	P 2.5	...	...	...	...	...	...	...

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier. See technical note, page 68.

**13. Labor turnover rates in manufacturing, by major industry group**

[Per 100 employees]

Major industry group	Accession rates									Separation rates								
	Total			New hires			Recalls			Total			Quits			Layoffs		
	May 1979	Apr. 1980	May 1980 <sup>P</sup>	May 1979	Apr. 1980	May 1980 <sup>P</sup>	May 1979	Apr. 1980	May 1980 <sup>P</sup>	May 1979	Apr. 1980	May 1980 <sup>P</sup>	May 1979	Apr. 1980	May 1980 <sup>P</sup>	May 1979	Apr. 1980	May 1980 <sup>P</sup>
<b>MANUFACTURING</b>	4.7	3.1	3.3	3.6	2.1	2.1	0.8	0.8	1.0	3.8	4.7	4.8	2.1	1.5	1.5	0.7	2.3	2.5
Seasonally adjusted	4.0	3.0	2.9	3.0	2.1	1.8	...	...	...	4.0	5.3	5.7	2.0	1.5	1.4	1.0	2.9	3.5
<b>Durable goods</b>	4.3	2.7	2.8	3.3	1.7	1.6	.7	.7	.9	3.4	4.7	5.0	1.8	1.2	1.2	.6	2.6	2.9
Lumber and wood products	7.7	4.2	5.5	6.0	2.3	2.3	1.5	1.7	3.1	5.6	10.2	6.5	3.9	2.5	2.1	.5	6.6	3.4
Furniture and fixtures	6.1	3.3	3.2	5.3	2.7	2.3	.6	.4	.7	6.0	5.0	5.6	3.7	2.2	2.2	1.1	1.8	2.4
Stone, clay, and glass products	5.4	3.6	3.8	4.1	1.8	1.8	1.1	1.6	1.8	3.5	4.5	5.6	2.1	1.3	1.3	.5	2.3	3.3
Primary metal industries	3.4	1.9	2.0	2.5	.9	.8	.6	.8	.9	2.2	3.8	6.3	1.0	.6	.5	.3	2.4	5.0
Fabricated metal products	4.9	3.0	3.1	3.8	1.9	1.8	.8	.9	1.1	4.0	5.9	5.6	2.2	1.5	1.3	.8	3.6	3.5
Machinery, except electrical	3.2	2.0	2.1	2.7	1.6	1.5	.2	.2	.4	2.6	3.4	3.7	1.5	1.0	1.0	.3	1.6	1.9
Electric and electronic equipment	4.0	2.6	2.5	3.0	1.7	1.6	.6	.4	.4	3.1	3.5	4.3	1.7	1.2	1.2	.4	1.3	2.2
Transportation equipment	3.9	2.6	...	2.6	1.1	...	.8	1.1	...	3.3	6.2	...	1.2	.8	...	1.1	4.5	...
Instruments and related products	3.5	2.4	2.8	2.9	2.0	2.3	.3	.2	.3	2.6	2.6	3.3	1.6	1.2	1.4	.3	.6	1.2
Miscellaneous manufacturing	6.0	4.4	4.0	4.7	3.1	2.6	1.2	1.0	1.2	5.2	5.0	5.9	2.9	1.9	1.9	1.2	2.0	3.0
<b>Nondurable goods</b>	5.3	3.8	4.1	4.0	2.6	2.8	1.0	.9	1.1	4.4	4.6	4.6	2.6	2.0	1.9	.9	1.8	1.9
Food and kindred products	7.3	5.3	6.3	5.0	3.2	3.8	2.0	1.8	2.3	5.7	6.0	5.6	3.2	2.3	2.3	1.6	2.9	2.4
Tobacco manufacturers	2.5	2.6	...	1.0	.8	...	.9	1.0	...	3.7	2.8	...	.9	.3	...	1.5	1.5	...
Textile mill products	5.8	4.0	3.8	4.7	3.2	2.9	.6	.5	.5	5.2	4.8	4.8	3.5	2.6	2.4	.5	1.1	1.3
Apparel and other products	6.1	5.2	5.4	4.2	3.6	3.4	1.7	1.4	1.7	5.9	5.9	6.1	3.4	2.9	2.9	1.6	2.2	2.4
Paper and allied products	3.8	2.2	2.6	3.0	1.3	1.6	.6	.7	.8	2.5	2.9	3.0	1.4	.9	.9	.4	1.3	1.5
Printing and publishing	3.8	2.8	3.2	3.3	2.4	2.6	.4	.3	.5	3.3	3.1	3.3	2.1	1.8	1.9	.6	.7	.8
Chemicals and allied products	2.5	1.5	2.0	2.0	1.2	1.4	.3	.2	.3	1.7	1.8	2.1	.8	.6	.7	.3	.6	.9
Petroleum and coal products	3.6	2.5	3.5	2.9	1.7	2.8	.4	.8	.5	1.8	2.7	2.5	.9	.7	.6	.4	1.5	1.3
Rubber and miscellaneous plastics products	6.2	3.2	3.3	5.0	2.2	2.0	.7	.8	1.0	4.9	6.8	6.9	3.0	1.9	1.8	.7	3.7	4.1
Leather and leather products	8.5	7.0	6.6	6.2	5.1	5.0	1.8	1.4	1.4	7.4	6.9	7.2	4.8	3.8	3.4	1.4	2.1	2.7

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier. See technical note, page 68.

### 14. Hours and earnings, by industry division, 1949-79

[Gross averages, production or nonsupervisory workers on nonagricultural payrolls]

Year	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings
	Total private			Mining			Construction			Manufacturing		
1949	\$50.24	39.4	\$1.275	\$62.33	36.3	\$1.717	\$67.56	37.7	\$1.792	\$53.88	39.1	\$1.378
1950	53.13	39.8	1.335	67.16	37.9	1.772	69.68	37.4	1.863	58.32	40.5	1.440
1951	57.86	39.9	1.45	74.11	38.4	1.93	76.96	38.1	2.02	63.34	40.6	1.56
1952	60.65	39.9	1.52	77.59	38.6	2.01	82.86	38.9	2.13	66.75	40.7	1.64
1953	63.76	39.6	1.61	83.03	38.8	2.14	86.41	37.9	2.28	70.47	40.5	1.74
1954	64.52	39.1	1.65	82.60	38.6	2.14	88.91	37.2	2.39	70.49	39.6	1.78
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.30	40.7	1.85
1956	70.74	39.3	1.80	95.06	40.8	2.33	96.38	37.5	2.57	78.78	40.4	1.95
1957	73.33	38.8	1.89	98.25	40.1	2.45	100.27	37.0	2.71	81.19	39.8	2.04
1958	75.08	38.5	1.95	96.08	38.9	2.47	103.78	36.8	2.82	82.32	39.2	2.10
1959 <sup>1</sup>	78.78	39.0	2.02	103.68	40.5	2.56	108.41	37.0	2.93	88.26	40.3	2.19
1960	80.67	38.6	2.09	105.04	40.4	2.60	112.67	36.7	3.07	89.72	39.7	2.26
1961	82.60	38.6	2.14	106.92	40.5	2.64	118.08	36.9	3.20	92.34	39.8	2.32
1962	85.91	38.7	2.22	110.70	41.0	2.70	122.47	37.0	3.31	96.56	40.4	2.39
1963	88.46	38.8	2.28	114.40	41.6	2.75	127.19	37.3	3.41	99.23	40.5	2.45
1964	91.33	38.7	2.36	117.74	41.9	2.81	132.06	37.2	3.55	102.97	40.7	2.53
1965	95.45	38.8	2.46	123.52	42.3	2.92	138.38	37.4	3.70	107.53	41.2	2.61
1966	98.82	38.6	2.56	130.24	42.7	3.05	146.26	37.6	3.89	112.19	41.4	2.71
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.49	40.6	2.82
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.49	37.3	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.54	37.9	4.79	129.51	40.6	3.19
1970	119.83	37.1	3.23	164.40	42.7	3.85	195.45	37.3	5.24	133.33	39.8	3.35
1971	127.31	36.9	3.45	172.14	42.4	4.06	211.67	37.2	5.69	142.44	39.9	3.57
1972	136.90	37.0	3.70	189.14	42.6	4.44	221.19	36.5	6.06	154.71	40.5	3.82
1973	145.39	36.9	3.94	201.40	42.4	4.75	235.89	36.8	6.41	166.46	40.7	4.09
1974	154.76	36.5	4.24	219.14	41.9	5.23	249.25	36.6	6.81	176.80	40.0	4.42
1975	163.53	36.1	4.53	249.31	41.9	5.95	266.08	36.4	7.31	190.79	39.5	4.83
1976	175.45	36.1	4.86	273.90	42.4	6.46	283.73	36.8	7.71	209.32	40.1	5.22
1977	189.00	36.0	5.25	301.20	43.4	6.94	295.65	36.5	8.10	228.90	40.3	5.68
1978 <sup>1</sup>	203.70	35.8	5.69	332.88	43.4	7.67	318.69	36.8	8.66	249.27	40.4	6.17
1979 <sup>1</sup>	219.30	35.6	6.16	365.50	43.0	8.50	342.99	37.0	9.27	268.94	40.2	6.69
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1949				\$42.93	40.5	\$1.060	\$47.63	37.8	\$1.260			
1950				44.55	40.5	1.100	50.52	37.7	1.340			
1951				47.79	40.5	1.18	54.67	37.7	1.45			
1952				49.20	40.0	1.23	57.08	37.8	1.51			
1953				51.35	39.5	1.30	59.57	37.7	1.58			
1954				53.33	39.5	1.35	62.04	37.6	1.65			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1956				57.48	39.1	1.47	65.68	36.9	1.78			
1957				59.60	38.7	1.54	67.53	36.7	1.84			
1958				61.76	38.6	1.60	70.12	37.1	1.89			
1959 <sup>1</sup>				64.41	38.8	1.66	72.74	37.3	1.95			
1960				66.01	38.6	1.71	75.14	37.2	2.02			
1961				67.41	38.3	1.76	77.12	36.9	2.09			
1962				69.91	38.2	1.83	80.94	37.3	2.17			
1963				72.01	38.1	1.89	84.38	37.5	2.25			
1964	\$118.78	41.1	\$2.89	74.66	37.9	1.97	85.79	37.3	2.30	\$70.03	36.1	\$1.94
1965	125.14	41.3	3.03	76.91	37.7	2.04	88.91	37.2	2.39	73.60	35.9	2.05
1966	128.13	41.2	3.11	79.39	37.1	2.14	92.13	37.3	2.47	77.04	35.5	2.17
1967	130.82	40.5	3.23	82.35	36.6	2.25	95.72	37.1	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	87.00	36.1	2.41	101.75	37.0	2.75	83.97	34.7	2.42
1969	147.74	40.7	3.63	91.39	35.7	2.56	108.70	37.1	2.93	90.57	34.7	2.61
1970	155.93	40.5	3.85	96.02	35.3	2.72	112.67	36.7	3.07	96.66	34.4	2.81
1971	168.82	40.1	4.21	101.09	35.1	2.88	117.85	36.6	3.22	103.06	33.9	3.04
1972	187.86	40.4	4.65	106.45	34.9	3.05	122.98	36.6	3.36	110.85	33.9	3.27
1973	203.31	40.5	5.02	111.76	34.6	3.23	129.20	36.6	3.53	117.29	33.8	3.47
1974	217.48	40.2	5.41	119.02	34.2	3.48	137.61	36.5	3.77	126.00	33.6	3.75
1975	233.44	39.7	5.88	126.45	33.9	3.73	148.19	36.5	4.06	134.67	33.5	4.02
1976	256.71	39.8	6.45	133.79	33.7	3.97	155.43	36.4	4.27	143.52	33.3	4.31
1977	278.90	39.9	6.99	142.52	33.3	4.28	165.26	36.4	4.54	153.45	33.0	4.65
1978 <sup>1</sup>	302.80	40.0	7.57	153.64	32.9	4.67	178.00	36.4	4.89	163.67	32.8	4.99
1979 <sup>1</sup>	325.98	39.9	8.17	164.96	32.6	5.06	190.77	36.2	5.27	175.27	32.7	5.36

<sup>1</sup> Data include Alaska and Hawaii beginning in 1959.

**15. Weekly hours, by industry division and major manufacturing group**

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1979							1980					
	1978	1979	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May P	June P
<b>TOTAL PRIVATE</b> .....	35.8	35.6	35.9	36.0	36.0	35.8	35.7	35.6	35.9	35.1	35.1	35.2	35.0	35.0	35.3
<b>MINING</b> .....	43.4	43.0	43.2	41.7	43.1	43.4	43.7	43.6	43.9	43.4	43.2	43.4	42.8	42.6	43.3
<b>CONSTRUCTION</b> .....	36.8	37.0	38.0	37.8	38.1	38.0	37.7	36.6	37.2	35.3	35.7	36.2	36.7	36.9	37.8
<b>MANUFACTURING</b> .....	40.4	40.2	40.4	39.9	40.0	40.3	40.2	40.3	40.9	39.8	39.8	39.8	39.4	39.3	39.4
Overtime hours .....	3.6	3.3	3.4	3.2	3.3	3.6	3.4	3.4	3.4	3.0	2.9	3.0	2.7	2.5	2.4
<b>Durable goods</b> .....	41.1	40.8	41.0	40.4	40.4	40.8	40.8	40.8	41.6	40.3	40.3	40.3	39.9	39.6	39.7
Overtime hours .....	3.8	3.5	3.6	3.4	3.4	3.6	3.5	3.4	3.5	3.1	3.0	3.1	2.7	2.4	2.4
Lumber and wood products .....	39.8	39.4	40.2	39.4	39.9	40.1	39.8	38.8	39.2	38.1	38.5	38.3	37.1	37.6	38.1
Furniture and fixtures .....	39.3	38.7	38.8	38.1	38.8	39.0	39.3	39.3	39.9	38.4	38.4	38.5	37.9	37.3	37.4
Stone, clay, and glass products .....	41.6	41.5	42.1	41.5	41.8	41.7	41.7	41.7	41.8	40.1	40.1	40.7	40.4	40.6	41.0
Primary metal industries .....	41.8	41.4	41.6	41.3	40.8	41.3	40.9	40.7	40.9	40.7	40.7	40.7	40.6	39.3	39.4
Fabricated metal products .....	41.0	40.7	41.0	40.3	40.5	40.8	40.9	41.0	41.9	40.6	40.4	40.6	40.2	39.9	40.1
Machinery except electrical .....	42.1	41.8	41.9	41.2	41.2	41.8	41.5	41.8	42.7	41.5	41.5	41.5	41.1	40.8	40.8
Electric and electronic equipment .....	40.3	40.3	40.5	39.6	39.7	40.5	40.3	40.8	41.3	40.2	40.2	40.0	39.6	39.3	39.3
Transportation equipment .....	42.2	41.1	41.2	40.9	40.5	40.7	41.3	40.8	42.7	40.0	40.4	40.4	39.8	39.8	39.9
Instruments and related products .....	40.9	40.8	40.7	40.3	40.4	40.7	40.8	41.4	41.7	41.0	40.8	40.6	40.4	40.3	40.7
Miscellaneous manufacturing .....	38.8	38.8	38.9	38.5	38.8	39.2	39.1	39.4	39.5	38.8	38.6	38.8	38.4	38.2	38.1
<b>Nondurable goods</b> .....	39.4	39.3	39.4	39.2	39.4	39.6	39.4	39.6	39.9	39.0	38.9	38.9	38.7	38.8	38.8
Overtime hours .....	3.2	3.1	3.0	3.0	3.2	3.5	3.2	3.3	3.2	2.9	2.8	2.9	2.7	2.6	2.5
Food and kindred products .....	39.7	39.9	39.8	40.1	40.3	40.6	40.0	40.2	40.4	39.5	39.1	39.0	38.9	39.7	39.5
Tobacco manufactures .....	38.1	38.0	39.0	36.1	37.6	39.2	38.9	38.8	39.4	37.3	36.9	37.7	38.2	38.3	39.2
Textile mill products .....	40.4	40.4	40.7	39.9	40.3	40.8	40.8	41.3	41.5	40.9	40.8	40.9	39.9	39.8	39.6
Apparel and other textile products .....	35.6	35.3	35.6	35.5	35.6	35.3	35.5	35.6	35.9	35.2	35.4	35.4	35.3	35.3	35.6
Paper and allied products .....	42.9	42.6	42.8	42.5	42.6	42.7	42.7	42.9	43.5	42.7	42.4	42.4	42.2	41.6	41.9
Printing and publishing .....	37.6	37.5	37.4	37.4	37.9	37.9	37.5	37.9	38.1	37.2	37.0	37.2	36.8	36.9	36.8
Chemicals and allied products .....	41.9	41.9	41.8	41.7	41.8	41.8	41.7	42.2	42.2	41.7	41.6	41.7	41.6	41.5	41.2
Petroleum and coal products .....	43.6	43.8	43.4	44.1	43.6	44.7	44.1	44.8	43.5	36.2	39.7	39.4	41.1	42.5	42.6
Rubber and miscellaneous plastics products .....	40.9	40.5	40.7	40.2	40.0	40.5	40.5	40.3	40.7	40.3	39.9	40.0	39.7	39.0	39.6
Leather and leather products .....	37.1	36.5	37.1	36.9	36.6	36.8	36.5	36.8	37.3	36.7	36.8	36.4	36.7	37.0	37.7
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	40.0	39.9	40.1	40.0	40.3	39.9	40.0	40.2	40.0	39.5	39.4	39.5	39.5	39.3	39.8
<b>WHOLESALE AND RETAIL TRADE</b> .....	32.9	32.6	32.9	33.3	33.2	32.6	32.4	32.4	32.9	31.9	31.9	32.0	31.8	31.9	32.2
<b>WHOLESALE TRADE</b> .....	38.8	38.8	39.0	39.0	39.0	38.8	38.9	38.9	39.1	38.5	38.4	38.4	38.4	38.5	38.6
<b>RETAIL TRADE</b> .....	31.0	30.6	31.0	31.5	31.4	30.6	30.4	30.4	31.0	29.8	29.8	29.9	29.7	29.9	30.2
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	36.4	36.2	36.1	36.2	36.1	36.1	36.2	36.3	36.4	36.2	36.3	36.3	36.2	36.1	36.4
<b>SERVICES</b> .....	32.8	32.7	32.9	33.3	33.2	32.7	32.6	32.6	32.8	32.5	32.5	32.5	32.4	32.3	32.7

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier. See technical note, page 68.

### 16. Weekly hours, by industry division and major manufacturing group, seasonally adjusted

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	1979							1980					
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	35.6	35.6	35.7	35.6	35.6	35.6	35.7	35.6	35.5	35.4	35.3	35.1	35.0
<b>MINING</b> .....	43.2	41.7	43.1	43.4	43.7	43.6	43.9	43.4	43.2	43.4	42.8	42.6	43.3
<b>CONSTRUCTION</b> .....	37.2	36.9	37.3	37.5	36.8	37.0	37.2	37.3	37.1	36.6	36.7	36.8	37.0
<b>MANUFACTURING</b> .....	40.1	40.1	40.1	40.1	40.1	40.1	40.2	40.3	40.1	39.8	39.8	39.3	39.1
Overtime hours .....	3.3	3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.0	3.1	3.0	2.5	2.4
<b>Durable goods</b> .....	40.6	40.7	40.7	40.7	40.7	40.6	40.7	40.8	40.6	40.3	40.3	39.7	39.5
Overtime hours .....	3.5	3.5	3.4	3.3	3.3	3.3	3.2	3.3	3.1	3.2	3.0	2.4	2.4
Lumber and wood products .....	39.4	39.3	39.6	39.6	39.2	38.9	39.0	39.4	39.1	38.7	37.3	37.5	37.4
Furniture and fixtures .....	38.5	38.5	38.6	38.7	38.8	38.9	38.9	39.2	39.0	38.5	38.5	37.6	37.1
Stone, clay, and glass products .....	41.4	41.4	41.4	41.5	41.3	41.4	41.5	41.4	41.2	40.9	40.6	40.3	40.4
Primary metal industries .....	41.2	41.3	41.0	41.1	41.1	40.8	40.7	40.8	40.8	40.7	40.6	39.2	39.0
Fabricated metal products .....	40.6	40.7	40.6	40.7	40.8	40.7	40.9	40.9	40.8	40.7	40.8	39.9	39.7
Machinery, except electrical .....	41.8	41.8	41.6	41.7	41.5	41.5	41.5	41.6	41.5	41.3	41.5	41.0	40.7
Electric and electronic equipment .....	40.2	40.2	39.9	40.3	40.3	40.4	40.5	40.5	40.3	40.0	39.9	39.5	39.1
Transportation equipment .....	40.7	41.0	41.5	40.6	41.0	40.5	40.9	40.9	40.8	40.4	40.5	39.6	39.5
Instruments and related products .....	40.6	40.8	40.6	40.7	40.7	41.0	41.0	41.4	40.9	40.4	40.7	40.3	40.6
Miscellaneous manufacturing .....	38.8	39.0	38.9	39.0	38.9	38.9	39.0	39.2	39.1	38.6	38.5	38.3	38.0
<b>Nondurable goods</b> .....	39.2	39.2	39.3	39.3	39.3	39.4	39.4	39.5	39.4	39.0	39.1	38.9	38.6
Overtime hours .....	3.0	3.0	3.1	3.1	3.1	3.2	3.1	3.1	2.9	3.0	3.0	2.7	2.5
Food and kindred products .....	39.8	39.8	39.8	40.0	39.9	39.9	39.9	39.8	39.7	39.3	39.6	39.9	39.5
Tobacco manufactures .....	38.0	38.1	38.1	38.4	38.3	37.8	38.5	38.5	37.9	37.7	38.2	37.8	38.2
Textile mill products .....	40.2	40.3	40.3	40.7	40.8	41.0	41.0	41.5	41.1	40.8	40.3	39.7	39.1
Apparel and other textile products .....	35.2	35.3	35.3	35.2	35.4	35.3	35.6	36.0	35.9	35.3	35.8	35.3	35.2
Paper and allied products .....	42.5	42.5	42.6	42.5	42.6	42.7	42.8	43.0	42.9	42.6	42.5	41.7	41.6
Printing and publishing .....	37.5	37.5	37.8	37.5	37.4	37.5	37.4	37.8	37.4	37.2	37.2	37.1	36.9
Chemicals and allied products .....	41.7	41.8	41.9	41.8	41.7	42.0	41.8	42.0	41.9	41.8	41.5	41.5	41.1
Petroleum and coal products .....	43.4	43.6	43.6	44.0	43.5	44.4	43.4	36.9	40.7	39.7	41.1	42.7	42.6
Rubber and miscellaneous plastics products .....	40.6	40.6	40.2	40.3	40.2	40.0	40.0	40.7	40.0	39.9	40.1	39.3	39.5
Leather and leather products .....	36.4	36.6	36.5	36.8	36.5	36.6	37.0	37.2	37.2	36.9	37.3	36.7	37.0
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	40.1	40.0	40.3	39.9	40.0	40.2	40.0	39.5	39.4	39.5	39.5	39.3	39.8
<b>WHOLESALE AND RETAIL TRADE</b> .....	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.4	32.3	32.0	32.1	31.9
<b>WHOLESALE TRADE</b> .....	38.8	38.8	38.8	38.8	38.8	38.9	38.9	38.9	38.8	38.5	38.5	38.6	38.4
<b>RETAIL TRADE</b> .....	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.4	30.3	30.0	30.1	29.8
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	36.1	36.2	36.1	36.1	36.2	36.3	36.4	36.2	36.3	36.3	36.2	36.1	36.4
<b>SERVICES</b> .....	32.7	32.8	32.7	32.7	32.6	32.7	32.8	32.7	32.7	32.7	32.6	32.5	32.5

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment

data in this table may differ from data published earlier. See technical note, page 68.

**17. Hourly earnings, by industry division and major manufacturing group**

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1979							1980					
	1978	1979	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$5.69	\$6.16	\$6.11	\$6.16	\$6.18	\$6.30	\$6.31	\$6.34	\$6.38	\$6.42	\$6.46	\$6.51	\$6.53	\$6.56	\$6.61
<b>MINING</b> .....	7.67	8.50	8.50	8.54	8.50	8.59	8.59	8.73	8.75	8.88	8.90	8.95	9.10	9.07	9.07
<b>CONSTRUCTION</b> .....	8.66	9.27	9.14	9.26	9.34	9.52	9.50	9.52	9.58	9.49	9.61	9.68	9.69	9.76	9.79
<b>MANUFACTURING</b> .....	6.17	6.69	6.67	6.72	6.70	6.80	6.82	6.87	6.97	6.96	7.00	7.06	7.09	7.13	7.18
<b>Durable goods</b> .....	6.58	7.13	7.12	7.15	7.13	7.24	7.25	7.29	7.42	7.39	7.46	7.54	7.56	7.60	7.67
Lumber and wood products .....	5.60	6.08	6.15	6.22	6.22	6.30	6.23	6.22	6.24	6.21	6.33	6.35	6.28	6.39	6.55
Furniture and fixtures .....	4.68	5.06	5.06	5.04	5.09	5.18	5.19	5.21	5.26	5.27	5.32	5.37	5.39	5.42	5.46
Stone, clay, and glass products .....	6.33	6.85	6.86	6.90	6.90	6.99	7.01	7.08	7.11	7.06	7.14	7.27	7.34	7.44	7.52
Primary metal industries .....	8.20	8.97	8.91	9.04	9.10	9.16	9.11	9.26	9.28	9.30	9.44	9.45	9.53	9.61	9.63
Fabricated metal products .....	6.35	6.84	6.83	6.83	6.85	6.95	6.98	7.01	7.14	7.09	7.14	7.24	7.27	7.32	7.38
<b>Machinery, except electrical</b> .....	6.78	7.32	7.34	7.34	7.35	7.48	7.44	7.50	7.63	7.66	7.69	7.76	7.81	7.90	7.94
<b>Electric and electronic equipment</b> .....	5.82	6.32	6.26	6.28	6.37	6.47	6.49	6.52	6.64	6.67	6.71	6.78	6.79	6.78	6.85
<b>Transportation equipment</b> .....	7.91	8.54	8.53	8.56	8.45	8.59	8.70	8.72	8.93	8.81	8.86	9.04	9.04	9.05	9.24
<b>Instruments and related products</b> .....	5.71	6.17	6.12	6.17	6.15	6.21	6.32	6.39	6.50	6.57	6.59	6.63	6.63	6.72	6.71
<b>Miscellaneous manufacturing</b> .....	4.69	5.03	4.99	5.01	5.02	5.06	5.10	5.13	5.20	5.28	5.30	5.34	5.37	5.39	5.44
<b>Nondurable goods</b> .....	5.53	6.00	5.94	6.03	6.04	6.11	6.14	6.21	6.26	6.28	6.27	6.30	6.36	6.42	6.46
Food and kindred products .....	5.80	6.27	6.21	6.28	6.28	6.32	6.35	6.50	6.55	6.61	6.64	6.68	6.75	6.82	6.83
Tobacco manufactures .....	6.13	6.65	6.81	6.83	6.51	6.43	6.33	6.97	6.98	7.08	7.36	7.57	7.79	7.68	8.04
Textile mill products .....	4.30	4.66	4.54	4.65	4.77	4.82	4.83	4.86	4.87	4.90	4.90	4.92	4.91	4.90	4.93
Apparel and other textile products .....	3.94	4.23	4.21	4.23	4.21	4.27	4.31	4.32	4.38	4.44	4.45	4.49	4.46	4.45	4.49
Paper and allied products .....	6.52	7.13	7.07	7.18	7.24	7.33	7.36	7.43	7.50	7.49	7.52	7.55	7.63	7.64	7.74
Printing and publishing .....	6.51	6.95	6.91	6.94	6.98	7.08	7.10	7.13	7.21	7.24	7.29	7.34	7.34	7.45	7.46
Chemicals and allied products .....	7.02	7.60	7.54	7.61	7.66	7.74	7.83	7.88	7.92	7.97	8.01	8.05	8.12	8.16	8.24
Petroleum and coal products .....	8.63	9.36	9.31	9.38	9.34	9.50	9.48	9.56	9.48	9.46	9.37	9.29	9.83	10.12	10.12
Rubber and miscellaneous plastics products .....	5.52	5.96	5.91	5.95	5.94	6.03	6.12	6.14	6.21	6.25	6.25	6.27	6.30	6.34	6.42
Leather and leather products .....	3.89	4.22	4.18	4.18	4.21	4.29	4.31	4.33	4.35	4.45	4.47	4.51	4.52	4.52	4.54
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	7.57	8.17	8.02	8.19	8.31	8.44	8.43	8.51	8.54	8.55	8.58	8.62	8.71	8.71	8.76
<b>WHOLESALE AND RETAIL TRADE</b> .....	4.67	5.06	5.03	5.05	5.06	5.13	5.15	5.18	5.18	5.34	5.36	5.40	5.40	5.42	5.44
<b>WHOLESALE TRADE</b> .....	5.88	6.39	6.35	6.40	6.42	6.52	6.52	6.58	6.69	6.72	6.77	6.83	6.87	6.89	6.95
<b>RETAIL TRADE</b> .....	4.20	4.53	4.50	4.51	4.52	4.57	4.59	4.62	4.61	4.78	4.78	4.81	4.80	4.82	4.83
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	4.89	5.27	5.21	5.28	5.28	5.37	5.35	5.41	5.48	5.53	5.60	5.68	5.68	5.69	5.79
<b>SERVICES</b> .....	4.99	5.36	5.28	5.29	5.31	5.45	5.48	5.55	5.61	5.65	5.70	5.75	5.75	5.79	5.83

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier. See technical note, page 68.

**18. Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls, by industry division**

[Seasonally adjusted data: 1967=100]

Industry	1979							1980						May 1980 to May 1980	June 1979 to June 1980
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>		
<b>TOTAL PRIVATE (in current dollars)</b> ..	229.1	230.8	232.2	234.2	234.9	237.2	239.4	240.4	242.5	245.3	246.2	248.2	250.7	1.0	9.4
Mining .....	263.4	265.0	264.8	265.5	267.6	272.1	274.7	277.1	278.6	280.9	283.7	283.7	284.1	.1	7.9
Construction .....	220.5	222.2	223.2	224.5	224.6	226.5	228.2	225.7	229.8	232.2	233.0	233.8	234.9	.5	6.5
Manufacturing .....	234.1	235.7	236.8	238.5	239.9	241.9	244.1	245.1	247.9	250.2	252.4	254.9	257.6	1.1	10.0
Transportation and public utilities .....	247.0	249.9	252.5	255.1	255.9	258.8	260.2	260.8	262.5	266.0	267.2	268.4	270.7	.9	9.6
Wholesale and retail trade .....	222.6	223.8	225.5	227.0	227.3	229.5	231.4	234.8	235.5	238.0	238.0	239.7	241.4	.7	8.4
Finance, insurance, and real estate .....	208.4	210.2	211.5	214.0	212.9	215.7	217.9	218.3	221.2	225.7	224.9	225.9	231.0	2.3	10.8
Services .....	226.0	227.4	228.8	231.5	232.4	234.9	237.7	237.7	239.6	242.8	243.0	245.7	249.0	1.3	10.2
<b>TOTAL PRIVATE (in constant dollars)</b> ..	105.9	105.5	105.1	104.8	104.1	104.1	103.8	102.7	102.3	102.0	101.4	101.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Not available.

NOTE: In accordance with usual practice BLS has revised establishment survey data to reflect a new

benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier. See technical note, page 68.

### 19. Weekly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1979							1980					
	1978	1979	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	\$203.70	\$219.30	\$219.35	\$221.76	\$222.48	\$225.54	\$225.27	\$225.70	\$229.04	\$225.34	\$226.75	\$229.15	\$228.55	\$229.60	\$233.33
<b>MINING</b> .....	332.88	365.50	367.20	356.12	366.35	372.81	375.38	380.63	384.13	385.39	384.48	388.43	389.48	386.38	392.73
<b>CONSTRUCTION</b> .....	318.69	342.99	347.32	350.03	355.85	361.76	358.15	348.43	356.38	335.00	343.08	350.42	355.62	360.14	370.06
<b>MANUFACTURING</b> .....	249.27	268.94	269.47	268.13	268.00	274.04	274.16	276.86	285.07	277.01	278.60	280.99	279.35	280.21	282.89
<b>Durable goods</b> .....	270.44	290.90	291.92	288.86	288.05	295.39	295.80	297.43	308.67	297.82	300.64	303.86	301.64	300.96	304.50
Lumber and wood products .....	222.88	239.55	247.23	245.07	248.18	252.63	247.95	241.34	244.61	236.60	243.71	243.21	232.99	240.26	249.56
Furniture and fixtures .....	183.92	195.82	196.33	192.02	197.49	202.02	203.97	204.75	209.87	202.37	204.29	206.75	204.28	202.17	204.20
Stone, clay, and glass products .....	263.33	284.28	288.81	286.35	288.42	291.48	292.32	295.24	297.20	283.11	286.31	295.89	296.54	302.06	308.32
Primary metal industries .....	342.76	371.36	370.66	373.35	371.28	378.31	372.60	376.88	379.55	378.51	384.21	384.62	386.92	377.67	379.42
Fabricated metal products .....	260.35	278.39	280.03	275.25	277.43	283.56	285.48	287.41	299.17	287.85	288.46	293.94	292.25	292.07	295.94
<b>Non-durable goods</b> .....	217.88	235.80	234.04	236.38	237.98	241.96	241.92	245.92	249.77	244.92	243.90	245.07	246.13	249.10	250.65
Food and kindred products .....	230.26	250.17	247.16	251.83	253.08	256.59	254.00	261.30	264.62	261.10	259.62	260.52	262.58	270.75	269.79
Tobacco manufactures .....	233.55	252.70	265.59	246.56	244.78	252.06	246.24	270.44	275.01	264.08	271.58	285.39	297.58	294.14	315.17
Textile mill products .....	173.72	188.26	184.78	185.54	192.23	196.66	197.06	200.72	202.11	200.41	199.92	201.23	195.91	195.02	195.23
Apparel and other textile products .....	140.26	149.32	149.88	150.17	149.88	150.73	153.01	153.79	157.24	156.29	157.53	158.95	157.44	157.09	159.84
Paper and allied products .....	279.71	303.74	302.60	305.15	308.42	312.99	314.27	318.75	326.25	319.82	318.85	320.12	321.99	317.82	324.31
Printing and publishing .....	244.78	260.63	258.43	259.56	264.54	268.33	266.25	270.23	274.70	269.33	269.73	273.05	270.11	274.91	274.53
Chemicals and allied products .....	294.14	318.44	315.17	317.34	320.19	323.53	326.51	332.54	334.22	332.35	333.22	335.69	337.79	338.64	339.49
Petroleum and coal products .....	376.27	409.97	404.05	413.66	407.22	424.65	418.07	428.29	412.38	342.45	371.99	366.03	404.01	430.10	431.11
Rubber and miscellaneous plastics products .....	225.77	241.38	240.54	239.19	237.60	244.22	247.86	247.44	252.75	251.88	249.38	250.80	250.11	247.26	254.23
Leather and leather products .....	144.32	154.03	155.08	154.24	154.09	157.87	157.32	159.34	162.26	163.32	164.50	164.16	165.88	167.24	171.16
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	302.80	325.98	321.60	327.60	334.89	336.76	337.20	342.10	341.60	337.73	338.05	340.49	344.05	342.30	348.65
<b>WHOLESALE AND RETAIL TRADE</b> .....	153.64	164.96	165.49	168.17	167.99	167.24	166.86	167.83	170.42	170.35	170.98	172.80	171.72	172.90	175.17
<b>WHOLESALE TRADE</b> .....	228.14	247.93	247.65	249.60	250.38	252.98	253.63	255.96	261.58	258.72	259.97	262.27	263.81	265.27	268.27
<b>RETAIL TRADE</b> .....	130.20	138.62	139.50	142.07	141.93	139.84	139.54	140.45	142.91	142.44	142.44	143.82	142.56	144.12	145.87
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	178.00	190.77	188.08	191.14	190.60	193.86	193.67	196.38	199.47	200.19	203.28	206.18	205.62	205.41	210.76
<b>SERVICES</b> .....	163.67	175.27	173.71	176.16	176.29	178.22	178.65	180.93	184.01	183.63	185.25	186.88	186.30	187.02	190.64

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in

this table may differ from data published earlier. See technical note, page 68.

**20. Gross and spendable weekly earnings, in current and 1967 dollars, 1960 to date**

[Averages for production or nonsupervisory workers on private nonagricultural payrolls]

Year and month	Private nonagricultural workers						Manufacturing workers					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Married worker with 3 dependents				Worker with no dependents		Married worker with 3 dependents	
	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars
1960	\$80.67	\$90.95	\$65.59	\$73.95	\$72.96	\$82.25	\$89.72	\$101.15	\$72.57	\$81.82	\$80.11	\$90.32
1961	82.60	92.19	67.08	74.87	74.48	83.13	92.34	103.06	74.60	83.26	82.18	91.72
1962	85.91	94.82	69.56	76.78	76.99	84.98	96.56	106.58	77.86	85.94	85.53	94.40
1963	88.46	96.47	71.05	77.48	78.56	85.67	99.23	108.21	79.51	86.71	87.25	95.15
1964	91.33	98.31	75.04	80.78	82.57	88.88	102.97	110.84	84.40	90.85	92.18	99.22
1965	95.45	101.01	79.32	83.94	86.63	91.67	107.53	113.79	89.08	94.26	96.78	102.41
1966	98.82	101.67	81.29	83.63	88.66	91.21	112.19	115.42	91.45	94.08	99.33	102.19
1967	101.84	101.84	83.38	83.38	90.86	90.86	114.49	114.49	92.97	92.97	100.93	100.93
1968	107.73	103.39	86.71	83.21	95.28	91.44	122.51	117.57	97.70	93.76	106.75	102.45
1969	114.61	104.38	90.96	82.84	99.99	91.07	129.51	117.95	101.90	92.81	111.44	101.49
1970	119.83	103.04	96.21	82.73	104.90	90.20	133.33	114.64	106.32	91.42	115.58	99.38
1971	127.31	104.95	103.80	85.57	112.43	92.69	142.44	117.43	114.97	94.78	124.24	102.42
1972	136.90	109.26	112.19	89.54	121.68	97.11	154.71	123.47	125.34	100.03	135.57	108.20
1973	145.39	109.23	117.51	88.29	127.38	95.70	166.46	125.06	132.57	99.60	143.50	107.81
1974	154.76	104.78	124.37	84.20	134.61	91.14	176.80	119.70	140.19	94.92	151.56	102.61
1975	163.53	101.45	132.49	82.19	145.65	90.35	190.79	118.36	151.61	94.05	166.29	103.16
1976	175.45	102.90	143.30	84.05	155.87	91.42	209.32	122.77	167.83	98.43	181.32	106.35
1977	189.00	104.13	155.19	85.50	169.93	93.63	228.90	126.12	183.80	101.27	200.06	110.23
1978 <sup>1</sup>	203.70	104.30	165.39	84.69	180.71	92.53	249.27	127.63	197.40	101.08	214.87	110.02
1979 <sup>1</sup>	219.30	100.73	177.55	81.56	194.35	89.27	268.94	123.54	212.43	97.58	232.07	106.60
1979 <sup>1</sup> : June	219.35	101.13	177.59	81.88	194.39	89.62	269.47	124.24	219.79	98.11	232.48	107.18
July	221.76	101.08	179.35	81.75	196.26	89.45	268.13	122.21	211.88	96.57	231.46	105.50
August	222.48	100.44	179.87	81.21	196.83	88.86	268.00	120.99	211.79	95.62	231.36	104.45
September	225.54	100.82	182.10	81.40	199.15	89.03	274.04	122.50	215.89	96.51	235.94	105.47
October	225.27	99.85	181.90	80.63	198.94	88.18	274.16	121.52	215.97	95.73	236.04	104.63
November	225.70	99.17	182.22	80.06	199.27	87.55	276.86	121.64	217.80	95.69	238.08	104.60
December	229.04	99.58	184.59	80.26	201.80	87.74	285.07	123.94	223.38	97.12	244.31	106.22
1980 <sup>1</sup> : January	225.34	96.59	181.96	77.99	199.00	85.30	277.01	118.74	217.91	93.40	238.20	102.10
February	226.75	95.88	182.98	77.37	200.07	84.60	278.60	117.80	218.99	92.60	239.40	101.23
March	229.15	95.52	184.67	76.98	201.89	84.16	280.99	117.13	220.61	91.96	241.22	100.55
April	228.55	94.21	184.25	75.95	201.43	83.03	279.35	115.15	219.49	90.47	239.97	98.92
May <sup>P</sup>	229.60	93.68	184.98	75.47	202.23	82.51	280.21	114.32	220.08	89.79	240.63	98.18
June <sup>P</sup>	233.33	( <sup>1</sup> )	187.59	( <sup>1</sup> )	205.06	( <sup>1</sup> )	282.89	( <sup>1</sup> )	221.90	( <sup>1</sup> )	242.66	( <sup>1</sup> )

<sup>1</sup>Not available.

NOTE: The earnings expressed in 1967 dollars have been adjusted for changes in price level as measured by the Bureau's Consumer Price Index for Urban Wage Earners and Clerical Workers. These series are described in "The Spendable Earnings Series: A Technical Note on its Cal-

ulation," **Employment and Earnings and Monthly Report on the Labor Force**, February 1969, pp. 6-13. See also "Spendable Earnings Formulas, 1978-80," **Employment and Earnings**, March 1980, pp. 10-11.



## UNEMPLOYMENT INSURANCE DATA

UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from records of State and Federal unemployment insurance claims filed and benefits paid. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

### Definitions

Data for all programs represent an unduplicated count of insured unemployment under State programs, Unemployment Compensation for Ex-Servicemen, and Unemployment Compensation for Federal Employees, and the Railroad Insurance Act.

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unem-

ployed. Persons not covered by unemployment insurance (about one-third of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. **Initial claims** are notices filed by persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The **rate of insured unemployment** expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

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. **Number of payments** are payments made in 14-day registration periods. The **average amount of benefit payment** is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments. However, **total benefits** paid have been adjusted.

### 21. Unemployment Insurance and employment service operations

[All items except average benefits amounts are in thousands]

Item	1979								1980				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
All programs:													
Insured unemployment	2,230	2,119	2,429	2,377	2,164	2,236	2,559	3,047	3,740	3,730	3,652	3,627	3,683
State unemployment insurance program: <sup>1</sup>													
Initial claims <sup>2</sup>	1,309	1,400	1,978	1,545	1,219	1,641	1,827	2,263	2,837	1,818	1,705	.....	.....
Insured unemployment (average weekly volume)	2,078	1,991	2,300	2,245	2,024	2,057	2,384	2,864	3,537	3,518	3,356	3,278	3,346
Rate of insured unemployment	2.6	2.5	2.8	2.7	2.4	2.4	2.8	3.4	4.1	4.1	3.9	3.8	3.9
Weeks of unemployment compensated	8,442	7,197	7,889	8,830	6,993	7,638	8,107	9,171	13,792	12,800	13,170	.....	.....
Average weekly benefit amount for total unemployment	\$88.37	\$87.25	\$86.40	\$88.56	\$89.07	\$90.59	\$92.39	\$94.54	\$96.41	\$98.46	\$99.15	.....	.....
Total benefits paid	\$725,229	\$610,269	\$665,687	\$767,025	\$606,095	\$673,965	\$728,370	\$843,869	\$1,283,946	\$1,229,877	\$1,218,231	.....	.....
Unemployment compensation for ex-servicemen: <sup>3</sup>													
Initial claims <sup>1</sup>	20	24	28	28	23	26	24	24	25	21	21	.....	.....
Insured unemployment (average weekly volume)	45	45	51	52	52	52	54	56	60	58	63	52	50
Weeks of unemployment compensated	214	193	216	234	211	236	232	233	299	255	249	.....	.....
Total benefits paid	\$20,440	\$18,623	\$20,965	\$23,861	\$19,634	\$23,325	\$23,093	\$23,093	\$29,635	\$25,414	\$24,928	.....	.....
Unemployment compensation for Federal civilian employees: <sup>4</sup>													
Initial claims	12	13	16	13	13	18	15	15	19	11	12	.....	.....
Insured unemployment (average weekly volume)	24	23	25	25	25	28	29	31	34	32	30	25	22
Weeks of unemployment compensated	106	91	96	107	91	109	118	118	150	129	123	.....	.....
Total benefits paid	\$9,330	\$8,341	\$8,802	\$9,829	\$8,453	\$10,093	\$11,063	\$11,047	\$14,118	\$12,387	\$11,901	.....	.....
Railroad unemployment insurance:													
Applications	3	9	15	8	13	11	10	11	22	7	5	.....	.....
Insured unemployment (average weekly volume)	10	8	11	12	21	18	20	19	40	39	30	.....	.....
Number of payments	29	19	20	26	32	51	36	41	80	71	68	.....	.....
Average amount of benefit payment	\$177.39	\$183.13	\$190.10	\$195.61	\$189.08	\$189.61	\$183.38	\$197.22	\$199.01	\$208.73	\$210.79	.....	.....
Total benefits paid	\$5,681	\$3,314	\$3,699	\$3,767	\$5,747	\$8,003	\$6,462	\$8,085	\$14,967	\$14,573	\$13,884	.....	.....
Employment service: <sup>5</sup>													
New applications and renewals	10,452	11,907	13,186	14,479	15,525	1,855	.....	4,378	.....	.....	8,553	.....	.....
Nonfarm placements	2,616	3,051	3,482	3,935	4,349	458	.....	1,044	.....	.....	1,816	.....	.....

<sup>1</sup> Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

<sup>2</sup> Includes interstate claims for the Virgin Islands. Excludes transition claims under State programs.

<sup>3</sup> Excludes data on claims and payments made jointly with other programs.

<sup>4</sup> Includes the Virgin Islands. Excludes data on claims and payments made jointly with State programs.

<sup>5</sup> Cumulative total for fiscal year (October 1 - September 30).

NOTE: Data for Puerto Rico included. Dashes indicate data not available.

## PRICE DATA

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period (1967 = 100, unless otherwise noted).

### Definitions

The **Consumer Price Index** is a monthly statistical measure of the average change in prices in a fixed market basket of goods and services. Effective with the January 1978 index, the Bureau of Labor Statistics began publishing CPI's for two groups of the population. One index, a new CPI for All Urban Consumers, covers 80 percent of the total noninstitutional population; and the other index, a revised CPI for Urban Wage Earners and Clerical Workers, covers about half the new index population. The All Urban Consumers index includes, in addition to wage earners and clerical workers, professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctor's and dentist's fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items is kept essentially unchanged between major revisions so that only price changes will be measured. Prices are collected from over 18,000 tenants, 24,000 retail establishments, and 18,000 housing units for property taxes in 85 urban areas across the country. All taxes directly associated with the purchase and use of items are included in the index. Because the CPI's are based on the expenditures of two population groups in 1972-73, they may not accurately reflect the experience of individual families and single persons with different buying habits.

Though the CPI is often called the "Cost-of-Living Index," it measures only price change, which is just one of several important factors affecting living costs. Area indexes do not measure differences in the level of prices among cities. They only measure the average change in prices for each area since the base period.

**Producer Price Indexes** measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The sample used for calculating these indexes contains about 2,800 commodities and about 10,000 quotations per month selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The universe includes all commodities produced or imported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of fabrication (that is, finished goods, intermediate or semifinished goods, and crude materials). The commodity structure organizes products by similarity of end-use or material composition.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire.

Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

In calculating Producer Price Indexes, price changes for the various commodities are averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage of processing groupings, commodity groupings, durability of product groupings, and a number of special composite groupings.

**Price indexes for the output of selected SIC industries** measure average price changes in commodities produced by particular industries, as defined in the *Standard Industrial Classification Manual 1972* (Washington, U.S. Office of Management and Budget, 1972). These indexes are derived from several price series, combined to match the economic activity of the specified industry and weighted by the value of shipments in the industry. They use data from comprehensive industrial censuses conducted by the U.S. Bureau of the Census and the U.S. Department of Agriculture.

### Notes on the data

Beginning with the May 1978 issue of the *Review*, regional CPI's cross classified by population size, were introduced. These indexes will enable users in local areas for which an index is not published to get a better approximation of the CPI for their area by using the appropriate population size class measure for their region. The cross-classified indexes will be published bimonthly. (See table 24.)

For further details about the new and the revised indexes and a comparison of various aspects of these indexes with the old unrevised CPI, see *Facts About the Revised Consumer Price Index*, a pamphlet in the Consumer Price Index Revision 1978 series. See also *The Consumer Price Index: Concepts and Content Over the Years*. Report 517, revised edition (Bureau of Labor Statistics, May 1978).

For interarea comparisons of living costs at three hypothetical standards of living, see the family budget data published in the *Handbook of Labor Statistics, 1977*. Bulletin 1966 (Bureau of Labor Statistics, 1977), tables 122-133. Additional data and analysis on price changes are provided in the *CPI Detailed Report* and *Producer Prices and Price Indexes*, both monthly publications of the Bureau.

As of January 1976, the Wholesale Price Index (as it was then called) incorporated a revised weighting structure reflecting 1972 values of shipments. From January 1967 through December 1975, 1963 values of shipments were used as weights.

For a discussion of the general method of computing consumer, producer, and industry price indexes, see *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), chapters 13-15. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978, pp. 7-15. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965, pp. 974-82.

**22. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-79**

[1967 = 100]

Year	All items		Food and beverages		Housing		Apparel and upkeep		Transportation		Medical care		Entertainment		Other goods and services	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1967	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...
1968	104.2	4.2	103.6	3.6	104.0	4.0	105.4	5.4	103.2	3.2	106.1	6.1	105.7	5.7	105.2	5.2
1969	109.8	5.4	108.8	5.0	110.4	6.2	111.5	5.8	107.2	3.9	113.4	6.9	111.0	5.0	110.4	4.9
1970	116.3	5.9	114.7	5.4	118.2	7.1	116.1	4.1	112.7	5.1	120.6	6.3	116.7	5.1	116.8	5.8
1971	121.3	4.3	118.3	3.1	123.4	4.4	119.8	3.2	118.6	5.2	128.4	6.5	122.9	5.3	122.4	4.8
1972	125.3	3.3	123.2	4.1	128.1	3.8	122.3	2.1	119.9	1.1	132.5	3.2	126.5	2.9	127.5	4.2
1973	133.1	6.2	139.5	13.2	133.7	4.4	126.8	3.7	123.8	3.3	137.7	3.9	130.0	2.8	132.5	3.9
1974	147.7	11.0	158.7	13.8	148.8	11.3	136.2	7.4	137.7	11.2	150.5	9.3	139.8	7.5	142.0	7.2
1975	161.2	9.1	172.1	8.4	164.5	10.6	142.3	4.5	150.6	9.4	168.6	12.0	152.2	8.9	153.9	8.4
1976	170.5	5.8	177.4	3.1	174.6	6.1	147.6	3.7	165.5	9.9	184.7	9.5	159.8	5.0	162.7	5.7
1977	181.5	6.5	188.0	6.0	186.5	6.8	154.2	4.5	177.2	7.1	202.4	9.6	167.7	4.9	172.2	5.8
1978	195.3	7.6	206.2	9.7	202.6	8.6	159.5	3.4	185.8	4.9	219.4	8.4	176.2	5.1	183.2	6.4
1979	217.7	11.5	228.7	10.9	227.5	12.3	166.4	4.3	212.8	14.5	240.1	9.4	187.6	6.5	196.3	7.2

**23. Consumer Price Index for All Urban Consumers and revised CPI for Urban Wage Earners and Clerical Workers, U.S. city average—general summary and groups, subgroups, and selected items**

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1979		1980					1979		1980				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
All items	214.1	229.9	233.2	236.4	239.8	242.5	244.9	214.3	230.0	233.3	236.5	239.9	242.6	245.1
Food and beverages	228.2	235.5	237.5	238.6	241.0	242.8	244.1	228.2	235.7	237.8	239.0	241.2	243.2	244.7
Housing	222.4	243.6	247.3	250.5	254.5	257.9	261.7	222.3	243.6	247.3	250.5	254.4	257.8	261.7
Apparel and upkeep	166.1	172.2	171.0	171.9	176.0	177.3	177.5	165.7	171.4	169.8	171.5	175.1	176.1	176.8
Transportation	207.7	227.7	233.5	239.6	243.7	246.8	249.0	208.6	228.3	234.1	240.2	244.3	247.7	249.9
Medical care	236.3	250.7	253.9	257.9	260.2	262.0	263.4	236.3	251.7	254.9	258.7	260.9	263.1	264.9
Entertainment	187.8	193.4	195.3	197.8	200.6	202.5	204.0	187.1	192.3	193.9	196.2	199.5	201.3	202.4
Other goods and services	193.9	204.0	206.3	208.1	208.9	209.8	211.2	193.8	203.0	206.0	207.7	208.3	209.2	210.6
Commodities	205.8	219.4	222.4	225.2	228.0	229.9	231.4	206.1	219.4	222.3	225.3	228.1	230.1	231.7
Commodities less food and beverages	192.9	208.8	212.0	215.5	218.4	220.4	222.0	193.1	208.7	212.0	215.7	218.7	220.6	222.3
Nondurables less food and beverages	195.7	219.0	224.6	231.8	237.5	239.5	240.3	196.6	220.5	226.3	234.1	239.8	241.7	242.6
Durables	189.2	199.8	201.3	202.1	203.0	204.9	207.1	188.9	198.2	199.6	200.3	201.2	203.3	205.4
Services	229.5	249.3	253.1	256.8	261.3	265.3	269.2	229.7	249.6	253.6	257.3	261.7	265.8	269.9
Rent, residential	173.8	182.9	184.1	185.6	186.6	187.0	188.9	173.7	182.7	183.9	185.5	186.4	188.9	188.7
Household services less rent	260.2	289.2	295.1	300.2	307.3	313.4	319.6	261.1	291.1	297.2	302.4	309.6	315.8	322.2
Transportation services	209.8	224.2	226.8	229.6	233.4	238.1	241.5	210.5	224.0	226.6	229.3	232.7	238.0	241.5
Medical care services	254.4	270.7	274.4	279.0	281.5	283.4	284.7	254.0	271.8	275.6	279.8	282.2	284.5	286.3
Other services	197.6	207.1	209.0	211.1	212.9	214.5	215.9	198.0	207.4	209.3	211.4	213.5	214.6	216.5
<b>Special indexes:</b>														
All items less food	208.9	226.4	229.9	233.5	237.1	239.9	242.6	209.1	226.4	230.0	233.7	237.3	240.2	242.9
All items less mortgage interest costs	208.7	221.7	224.3	227.1	229.8	231.8	233.7	209.1	222.0	224.7	227.6	230.2	232.4	234.2
Commodities less food	191.6	207.2	210.4	213.8	216.7	218.6	220.2	191.8	207.1	210.3	214.0	216.9	218.9	220.5
Nondurables less food	193.2	215.2	220.5	227.3	232.6	234.6	235.5	194.0	216.7	222.1	229.4	234.8	236.7	237.7
Nondurables less food and apparel	210.2	240.1	248.6	258.2	264.1	266.5	267.9	211.0	241.5	250.2	260.1	266.3	268.7	270.0
Nondurables	212.8	228.2	232.0	236.3	240.3	242.2	243.2	213.2	229.0	232.9	237.4	241.4	243.3	244.6
Services less rent	239.8	261.6	266.1	270.2	275.4	280.0	284.4	240.1	262.1	266.7	270.8	275.9	280.8	285.4
Services less medical care	225.3	245.3	249.2	252.7	257.4	261.5	265.7	225.6	245.5	249.5	253.1	257.7	261.9	266.3
Domestically produced farm foods	224.2	227.5	229.2	229.1	231.2	232.7	233.6	223.9	227.5	229.0	229.2	231.0	232.4	233.4
Selected beef cuts	271.9	263.2	265.7	267.2	270.2	268.0	265.6	273.1	265.2	268.1	270.3	272.3	269.5	267.5
Energy	260.8	313.7	327.9	344.6	355.0	358.8	363.2	262.2	317.0	331.5	348.7	359.6	363.3	367.3
All items less energy	210.7	223.6	225.9	228.0	230.8	233.4	235.7	210.8	223.0	225.3	227.3	230.0	232.7	235.1
All items less food and energy	204.1	218.1	220.6	222.8	225.7	228.5	231.0	204.0	217.3	219.6	221.8	224.6	227.5	230.0
Commodities less food and energy	183.6	192.6	193.7	194.9	196.5	198.2	199.9	183.3	191.4	192.4	193.5	195.1	196.9	198.6
Energy commodities	266.4	340.0	361.5	385.0	398.5	402.3	403.0	267.3	341.5	362.8	386.4	400.3	404.0	404.7
Services less energy	227.8	247.6	251.6	255.2	259.6	263.5	267.0	228.0	248.0	252.2	255.7	260.0	264.2	267.8
Purchasing power of the consumer dollar, 1967 = \$1	\$0.467	\$0.435	\$0.429	\$0.423	\$0.417	\$0.412	\$0.408	\$0.467	\$0.435	\$0.429	\$0.423	\$0.417	\$0.412	\$0.408

**23. Continued—Consumer Price Index—U.S. city average**

[1967=100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1979		1980					1979		1980				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>FOOD AND BEVERAGES</b>	228.2	235.5	237.5	238.6	241.0	242.8	244.1	228.2	235.7	237.8	239.0	241.2	243.2	244.7
<b>Food</b>	234.3	241.7	243.8	244.9	247.3	249.1	250.4	234.2	241.8	244.0	245.2	247.5	249.5	251.0
Food at home	233.4	238.7	240.6	241.3	243.6	245.3	246.5	232.8	238.3	240.1	241.1	243.1	245.0	246.1
Cereals and bakery products	216.2	231.6	234.2	236.8	238.6	242.0	244.5	216.8	232.3	234.7	237.4	239.3	242.2	244.4
Cereals and cereal products (12/77 = 100)	114.6	122.9	125.0	125.8	126.6	129.4	131.5	114.7	123.8	126.1	127.2	127.7	130.1	132.4
Flour and prepared flour mixes (12/77 = 100)	116.7	123.8	125.7	125.7	126.6	127.8	129.0	117.0	125.1	126.9	127.3	127.5	128.9	129.9
Cereal (12/77 = 100)	115.1	122.8	123.7	124.9	126.0	129.4	131.5	115.4	122.9	124.2	125.5	126.6	129.7	132.0
Rice, pasta, and cornmeal (12/77 = 100)	111.9	122.2	126.4	127.4	127.6	130.8	133.8	111.7	123.9	127.9	129.2	129.4	131.9	135.2
Bakery products (12/77 = 100)	114.4	122.4	123.5	125.1	126.1	127.6	128.7	114.7	122.7	123.6	125.1	126.2	127.5	128.3
White bread	189.0	207.4	208.6	210.7	212.0	215.1	216.7	189.0	206.6	207.4	209.7	212.1	215.1	216.0
Other breads (12/77 = 100)	114.9	123.3	123.8	124.6	125.6	127.0	128.3	116.2	126.0	126.9	127.5	129.3	129.3	130.6
Fresh biscuits, rolls, and muffins (12/77 = 100)	114.7	123.1	124.8	126.2	127.0	126.9	127.8	114.5	122.3	123.1	124.3	124.9	125.3	126.4
Fresh cakes and cupcakes (12/77 = 100)	113.3	120.3	121.7	122.8	124.4	126.5	127.4	113.9	120.1	120.8	122.2	123.2	125.4	126.5
Cookies (12/77 = 100)	113.4	117.8	119.7	122.8	124.4	125.3	126.1	114.9	119.6	121.5	124.0	125.6	126.3	126.8
Crackers and bread and cracker products (12/77 = 100)	113.3	116.2	117.5	119.9	120.2	122.0	122.2	113.2	116.3	118.4	121.0	121.8	122.2	123.0
Fresh sweetrolls, coffee cake, and donuts (12/77 = 100)	113.7	121.5	122.2	123.8	125.0	126.6	128.4	115.3	123.4	124.1	125.4	126.2	128.0	129.2
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	116.6	124.8	125.7	127.2	127.9	129.7	131.0	114.1	121.4	122.5	123.8	124.0	125.3	126.0
Meats, poultry, fish, and eggs	242.2	235.5	238.0	236.2	237.8	235.1	231.5	241.2	235.1	237.5	236.4	237.1	234.3	230.7
Meats, poultry, and fish	247.9	239.8	243.0	242.6	243.8	241.1	238.2	246.9	239.2	242.5	242.8	243.0	240.2	237.2
Meats	252.1	242.3	244.1	244.1	245.7	242.6	239.2	250.9	241.8	243.7	244.3	245.0	241.3	238.1
Beef and veal	270.3	262.2	264.6	266.2	269.1	267.0	264.8	271.3	263.7	266.7	268.9	270.8	268.2	266.3
Ground beef other than canned	280.6	271.2	271.4	273.3	275.3	272.9	269.4	280.0	273.0	272.7	276.2	278.7	274.7	270.6
Chuck roast	285.7	268.1	274.7	277.7	286.2	277.9	273.0	293.1	274.2	283.6	288.7	293.4	286.1	280.0
Round roast	244.4	238.1	241.9	244.5	244.2	242.7	243.4	244.1	240.5	245.1	245.8	244.5	242.1	245.5
Round steak	256.5	247.5	249.8	252.3	254.2	253.5	250.6	253.2	246.2	249.4	250.5	251.1	249.6	250.2
Sirloin steak	259.0	250.8	250.9	251.1	254.3	256.1	256.2	259.3	253.5	253.0	253.0	256.0	257.8	257.5
Other beef and veal (12/77 = 100)	152.8	150.2	151.8	152.2	153.8	153.3	152.4	153.4	149.9	151.9	152.8	153.7	153.1	152.2
Pork	222.2	205.0	206.4	202.8	202.6	197.1	191.8	221.6	205.6	206.8	204.1	203.0	196.7	191.8
Bacon	215.8	193.6	194.5	190.1	187.6	182.1	177.4	216.7	195.8	195.3	193.8	189.4	183.9	177.7
Pork chops	210.1	187.8	192.1	189.7	190.7	187.0	182.4	211.3	189.1	194.8	191.0	190.5	184.7	180.9
Ham other than canned (12/77 = 100)	101.8	102.5	99.1	95.7	95.8	90.6	87.4	99.6	100.9	96.5	95.2	94.7	88.7	85.4
Sausage	276.1	256.5	256.6	255.1	257.6	255.1	250.2	274.2	258.3	260.3	257.0	259.8	258.0	253.9
Canned ham	229.5	218.9	220.8	219.5	219.3	213.5	210.0	229.6	219.1	219.3	218.9	217.4	214.5	213.0
Other pork (12/77 = 100)	127.0	112.6	116.2	114.3	113.6	110.7	107.1	126.5	112.7	116.2	114.6	113.7	110.0	106.5
Other meats	244.0	243.0	243.2	244.7	245.8	243.9	240.2	240.0	239.5	239.3	240.9	241.5	239.0	235.6
Frankfurters	245.2	239.3	239.0	242.7	244.6	240.6	234.8	242.4	238.7	239.5	242.1	242.8	239.3	234.0
Bologna, liverwurst, and salami (12/77 = 100)	134.1	134.4	134.1	135.6	135.5	134.9	133.5	132.2	130.8	130.5	132.3	132.2	131.1	129.5
Other luncheon meats (12/77 = 100)	121.8	121.5	121.2	120.7	121.8	121.9	121.4	118.6	119.4	118.7	118.6	118.8	118.4	117.6
Lamb and organ meats (12/77 = 100)	138.5	140.0	141.6	142.4	142.3	140.1	136.3	140.0	141.7	142.5	143.4	144.3	141.3	138.4
Poultry	188.0	176.2	187.8	182.6	180.7	177.2	176.5	186.2	173.9	184.3	178.1	177.4	176.0	173.8
Fresh whole chicken	185.9	175.2	191.1	183.6	179.5	174.7	172.9	183.9	169.8	183.8	178.9	172.5	170.6	168.0
Fresh and frozen chicken parts (12/77 = 100)	120.4	112.3	120.7	116.8	116.8	114.5	114.4	120.2	111.8	118.7	117.0	116.3	114.7	112.7
Other poultry (12/77 = 100)	125.1	116.9	119.3	118.8	118.2	117.3	117.4	122.9	117.4	120.1	119.4	117.7	118.1	117.4
Fish and seafood	297.2	312.6	316.7	320.4	322.6	325.3	324.5	292.7	309.1	315.4	317.9	320.2	325.1	323.0
Canned fish and seafood (12/77 = 100)	109.8	117.1	118.5	120.3	120.4	122.9	125.4	108.6	116.5	118.4	119.7	119.5	121.8	124.0
Fresh and frozen fish and seafood (12/77 = 100)	115.2	120.2	121.9	123.0	124.3	124.5	122.5	113.2	118.5	121.2	122.0	123.5	125.1	122.4
Eggs	172.9	185.9	178.2	157.2	164.5	161.2	148.4	171.5	186.6	177.0	156.7	164.3	161.5	148.9
Dairy products	203.8	216.9	218.4	219.5	220.3	222.4	226.2	204.3	217.4	218.9	219.8	221.1	223.1	226.9
Fresh milk and cream (12/77 = 100)	114.7	122.7	123.2	123.7	124.1	124.7	127.0	115.2	122.6	123.2	123.6	124.2	124.8	127.2
Fresh whole milk	188.1	201.2	202.3	203.2	204.0	204.9	208.5	188.7	200.9	201.8	202.7	203.8	204.8	208.4
Other fresh milk and cream (12/77 = 100)	114.3	122.0	122.1	122.7	122.7	123.5	125.9	114.9	122.2	122.8	123.0	123.1	124.1	126.8
Processed dairy products (12/77 = 100)	115.8	122.5	123.8	124.5	125.1	127.0	129.1	116.0	123.3	124.5	125.1	126.2	128.0	129.9
Butter	199.4	214.0	216.9	218.3	218.3	219.9	222.2	201.5	216.6	219.8	220.9	220.9	222.7	225.3
Cheese (12/77 = 100)	116.3	122.6	123.5	124.2	124.9	126.2	127.8	116.1	122.7	123.6	124.4	125.5	126.8	128.5
Ice cream and related products (12/77 = 100)	115.2	122.6	124.0	124.6	125.1	128.6	131.9	115.7	124.3	125.6	125.6	127.2	130.4	132.9
Other dairy products (12/77 = 100)	112.7	117.9	119.8	120.9	121.6	124.0	126.1	112.6	118.3	120.4	121.3	121.9	123.6	125.7
Fruits and vegetables	226.8	230.2	229.8	228.3	232.4	240.9	246.6	224.9	228.3	227.2	225.9	230.1	239.8	245.5
Fresh fruits and vegetables	231.0	230.1	227.2	223.1	229.9	245.2	255.1	228.7	228.5	224.9	220.6	227.4	244.8	254.4
Fresh fruits	249.6	234.9	233.6	235.8	245.4	257.0	264.7	245.7	233.3	232.7	234.7	245.4	255.6	263.8
Apples	229.9	221.8	230.4	239.6	250.2	265.5	276.3	224.2	220.2	230.1	237.6	249.0	264.4	277.3
Bananas	212.6	225.2	221.9	238.5	243.9	242.8	249.7	209.1	222.0	219.5	234.6	240.8	243.5	244.5
Oranges	267.1	256.7	236.2	231.1	238.1	240.6	243.9	259.7	249.5	231.3	228.4	240.9	234.3	237.6
Other fresh fruits (12/77 = 100)	135.4	121.1	122.5	121.4	127.4	136.5	140.8	134.7	121.6	122.7	121.3	126.9	135.7	140.9
Fresh vegetables	213.6	225.7	221.2	211.2	215.5	234.2	246.2	213.4	224.2	217.9	207.9	211.3	235.2	246.0
Potatoes	203.9	207.0	203.8	203.3	203.3	201.7	210.1	203.5	199.6	200.9	199.8	200.3	198.2	205.6
Lettuce	194.1	227.5	197.6	198.7	208.3	271.9	279.9	195.1	231.3	193.2	191.7	203.8	281.9	288.6
Tomatoes	219.7	227.9	216.7	184.9	201.4	201.2	230.8	217.9	224.8	213.2	184.3	197.2	197.7	228.4
Other fresh vegetables (12/77 = 100)	122.9	128.0	132.0	125.1	125.4	134.6	140.1	123.0	128.1	130.5	123.9	123.0	135.3	139.7
Processed fruits and vegetables	224.2	232.3	234.7											

### 23. Continued—Consumer Price Index—U.S. city average

[1967=100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1979		1980				1979		1980					
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>FOOD AND BEVERAGES—Continued</b>														
<b>Food—Continued</b>														
Food at home—Continued														
Fruits and vegetables—Continued														
Cut corn and canned beans except lima (12/77=100)	112.2	114.4	114.5	115.2	116.0	115.6	116.0	111.0	113.0	112.7	113.4	115.4	114.3	114.2
Other canned and dried vegetables (12/77=100)	107.4	110.9	112.9	113.9	114.8	114.7	115.1	105.7	109.1	110.4	111.9	112.3	112.7	113.3
Other foods at home	266.0	281.1	283.5	288.0	292.0	295.1	298.1	265.3	279.9	282.6	287.3	290.9	294.6	298.0
Sugar and sweets	276.3	284.6	289.8	297.5	313.5	319.5	326.8	275.6	284.1	289.6	297.1	314.1	320.8	328.0
Candy and chewing gum (12/77=100)	117.1	120.1	121.3	122.4	123.8	126.3	128.9	116.9	119.9	121.2	122.2	123.9	126.5	129.0
Sugar and artificial sweeteners (12/77=100)	115.3	117.2	122.2	131.5	153.0	156.9	161.4	115.4	117.6	122.7	131.6	153.8	158.6	163.3
Other sweets (12/77=100)	111.7	117.5	118.7	119.5	120.4	121.3	123.6	110.4	116.6	117.5	118.5	119.3	120.0	122.2
Fats and oils (12/77=100)	225.3	233.0	233.9	235.9	236.8	238.3	239.5	225.1	233.7	234.9	236.5	236.8	238.3	240.1
Margarine	238.8	247.7	248.3	247.9	248.8	247.9	246.1	236.9	247.8	248.8	247.9	248.3	248.3	248.4
Nondairy substitutes and peanut butter (12/77=100)	112.4	115.7	115.3	116.4	117.9	119.8	121.4	112.1	115.8	116.1	117.2	118.5	120.0	121.6
Other fats, oils, and salad dressings (12/77=100)	117.0	121.1	121.9	123.6	123.7	124.8	125.8	117.4	121.5	122.3	123.8	123.4	124.4	125.5
Nonalcoholic beverages	349.3	375.4	378.5	384.5	387.1	390.3	393.0	348.4	372.3	375.6	383.0	384.4	389.2	392.3
Cola drinks, excluding diet cola	237.4	247.2	249.5	255.9	259.3	261.7	265.4	235.6	243.4	246.5	253.6	255.4	260.1	263.2
Carbonated drinks, including diet cola (12/77=100)	115.1	118.7	119.9	122.3	123.5	125.6	126.2	112.9	116.4	116.4	120.2	121.1	123.4	124.8
Roasted coffee	341.2	440.7	443.2	439.6	437.6	434.0	433.5	340.3	435.3	440.1	436.8	432.3	430.4	430.0
Freeze dried and instant coffee	329.8	374.3	378.2	382.2	381.7	380.2	381.9	328.6	372.9	376.8	380.4	380.3	379.2	380.4
Other noncarbonated drinks (12/77=100)	113.5	116.3	116.8	118.3	118.6	120.7	120.7	112.3	115.5	116.2	117.5	118.1	119.6	120.0
Other prepared foods	206.6	217.4	218.8	221.8	224.1	226.6	229.1	206.5	217.2	219.1	221.7	224.0	226.6	229.6
Canned and packaged soup (12/77=100)	111.4	115.9	116.5	118.1	118.0	120.5	122.0	111.6	116.3	116.8	117.9	117.6	120.6	122.5
Frozen prepared foods (12/77=100)	118.3	125.6	126.0	126.6	128.2	130.4	131.3	117.3	123.9	125.1	125.5	127.1	128.8	131.0
Snacks (12/77=100)	113.1	121.3	121.8	123.4	124.1	124.8	126.1	113.6	122.2	122.8	124.7	125.3	126.0	127.3
Seasonings, olives, pickles, and relish (12/77=100)	114.0	120.1	121.4	123.6	124.9	125.2	125.4	113.6	119.0	121.1	123.1	124.0	124.5	125.5
Other condiments (12/77=100)	113.1	119.5	120.8	123.7	126.0	127.1	127.9	113.9	120.2	121.4	124.6	126.6	128.1	129.2
Miscellaneous prepared foods (12/77=100)	114.5	118.9	119.6	120.7	122.2	124.4	127.6	114.2	118.7	119.7	120.5	122.2	123.7	127.0
Other canned and packaged prepared foods (12/77=100)	114.6	118.6	119.4	121.2	122.2	123.1	124.6	114.2	118.6	119.5	120.3	122.0	123.3	124.3
Food away from home	241.1	253.4	256.1	258.3	260.9	263.0	264.6	242.0	255.1	258.0	260.1	262.7	265.3	267.6
Lunch (12/77=100)	117.7	123.3	124.6	125.9	127.0	127.9	128.5	118.5	124.0	125.7	126.7	127.6	128.9	129.9
Dinner (12/77=100)	116.8	123.4	124.8	125.8	127.0	127.9	128.7	116.8	124.2	125.6	126.8	128.1	129.1	130.5
Other meals and snacks (12/77=100)	115.9	121.4	122.5	123.2	124.9	126.4	127.4	116.6	122.5	123.7	124.4	126.2	127.7	128.6
<b>Alcoholic beverages</b>	171.5	178.0	179.3	180.4	181.7	183.9	185.4	171.9	178.7	179.7	181.1	182.8	185.0	186.9
Alcoholic beverages at home (12/77=100)	111.5	116.0	116.8	117.4	118.2	119.9	120.9	112.4	117.0	117.6	118.3	119.3	120.8	122.0
Beer and ale	169.2	177.8	179.0	179.9	182.0	185.9	187.7	169.2	177.6	178.8	179.9	181.7	185.1	187.5
Whiskey	126.5	130.8	131.6	132.6	132.8	133.4	133.9	127.8	132.0	132.9	133.8	134.4	134.6	135.1
Wine	192.7	199.1	201.6	202.5	204.1	206.6	208.5	195.9	204.0	203.8	206.1	208.4	209.8	212.0
Other alcoholic beverages (12/77=100)	104.7	106.9	107.1	107.3	107.4	108.2	109.0	105.0	106.4	106.4	106.7	107.2	107.8	108.7
Alcoholic beverages away from home (12/77=100)	113.7	116.8	118.0	119.2	120.0	120.5	121.5	111.2	115.2	115.9	117.6	119.1	120.5	121.7
<b>HOUSING</b>	222.4	243.6	247.3	250.5	254.5	257.9	261.7	222.3	243.6	247.3	250.5	254.4	257.8	261.7
<b>Shelter</b>	233.5	259.4	264.0	267.2	271.6	276.0	280.2	234.1	260.4	265.1	268.3	272.7	277.2	281.6
Rent, residential	173.8	182.9	184.1	185.6	186.6	187.0	188.9	173.7	182.7	183.9	185.5	186.4	186.9	188.7
Other rental costs	230.3	244.9	251.1	255.7	258.6	260.7	261.9	229.6	244.4	251.1	255.6	258.6	260.5	261.7
Lodging while out of town	242.1	258.4	267.0	272.8	276.8	279.3	279.9	240.5	256.9	266.1	271.6	275.7	278.0	278.6
Tenants' insurance (12/77=100)	107.2	115.1	116.2	117.8	118.6	119.9	121.2	107.5	115.5	116.8	118.5	119.3	120.1	121.4
Homeownership	254.9	286.9	292.5	296.3	302.0	307.7	312.9	255.9	288.7	294.6	298.4	304.0	310.0	315.4
Home purchase (12/77=100)	217.6	239.9	242.1	243.0	244.0	246.5	249.7	217.6	240.2	242.3	243.0	243.8	246.5	249.8
Financing, taxes, and insurance	297.2	348.3	359.8	367.7	379.9	390.6	399.7	299.2	351.6	363.4	371.6	384.1	395.3	404.9
Property insurance	307.1	323.1	327.7	333.7	335.7	338.9	344.9	306.9	324.5	328.8	335.2	337.4	340.4	346.4
Property taxes	181.2	186.0	186.7	188.2	188.2	188.4	187.6	182.7	187.4	188.2	189.9	189.9	190.1	189.3
Contracted mortgage interest cost	358.4	435.3	452.8	464.0	483.0	499.4	513.6	358.9	436.1	453.7	465.0	484.1	500.9	515.6
Mortgage interest rates	162.0	178.3	183.7	187.5	194.4	199.4	202.4	162.2	178.4	183.8	187.8	194.8	199.8	202.8
Maintenance and repairs	252.4	268.3	270.6	273.7	278.8	282.9	284.9	253.4	268.9	271.9	274.4	278.2	281.7	283.4
Maintenance and repair services	273.2	290.4	293.2	297.1	303.2	307.9	310.1	275.5	292.8	295.9	299.3	303.5	307.7	309.1
Maintenance and repair commodities	203.8	216.6	217.6	218.9	221.4	224.3	225.8	204.0	215.8	218.4	219.5	222.3	224.3	226.5
Paint and wallpaper, supplies, tools, and equipment (12/77=100)	110.7	121.6	122.5	123.5	125.0	126.6	128.7	110.8	120.3	122.2	122.3	123.6	126.0	128.7
Lumber, awnings, glass, and masonry (12/77=100)	112.6	115.4	115.9	115.8	117.6	118.8	118.0	113.3	118.1	118.6	119.3	119.9	119.7	118.4
Plumbing, electrical, heating, and cooling supplies (12/77=100)	108.4	114.7	114.7	115.3	116.4	119.1	119.3	109.5	114.5	117.0	117.9	119.3	120.0	122.0
Miscellaneous supplies and equipment (12/77=100)	110.2	114.3	115.4	116.4	117.0	118.2	118.7	108.6	112.3	113.2	114.5	118.2	119.4	120.1
<b>Fuel and other utilities</b>	232.2	255.1	258.6	263.8	268.0	270.5	275.9	232.5	255.7	259.2	264.4	268.7	271.0	276.4
<b>Fuels</b>	274.6	311.8	318.0	327.1	333.9	337.8	346.4	274.6	311.8	318.0	327.0	333.9	337.6	346.0
Fuel oil, coal, and bottled gas	364.3	488.0	514.0	539.1	553.4	556.4	556.0	364.8	489.0	515.1	540.3	554.1	557.1	557.1
Fuel oil	375.3	507.3	534.4	561.9	577.9	580.7	580.4	375.7	508.1	534.9	562.5	577.9	580.7	580.5
Other fuels (6/78=100)	100.1	126.0	132.7	136.6	138.3	139.6	139.4	100.2	126.6	133.7	137.9	139.5	140.8	141.3
Gas (piped) and electricity	251.6	270.8	273.0	278.8	284.0	288.0	298.2	251.4	270.7	273.0	278.5	283.9	287.6	297.5
Electricity	214.3	224.7	226.6	233.8	237.9	241.5	248.1	214.7	224.9	226.8	233.9	238.1	241.5	248.0
Utility (piped) gas	296.8	332.6	335.1	336.8	343.9	347.9	364.6	295.4	331.1	333.8	335.4	342.6	346.4	362.3

**23. Continued—Consumer Price Index—U.S. city average**

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1979		1980				1979		1980					
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>HOUSING—Continued</b>														
<b>Fuel and other utilities—Continued</b>														
Other utilities and public services	159.0	161.9	161.5	161.3	161.9	162.3	163.1	159.1	161.8	161.5	161.4	161.9	162.3	163.1
Telephone services	132.2	134.3	133.4	132.8	133.2	133.4	134.0	132.2	134.2	133.4	132.8	133.1	133.2	133.9
Local charges (12/77 = 100)	100.6	103.2	102.6	102.7	103.3	103.5	104.3	100.6	103.2	102.6	102.7	103.2	103.3	104.0
Interstate toll calls (12/77 = 100)	98.3	98.4	97.7	97.4	97.4	97.3	97.3	98.3	98.4	97.7	97.5	97.5	97.4	97.4
Intrastate toll calls (12/77 = 100)	100.7	101.5	100.8	98.8	98.7	99.0	99.4	100.6	101.3	100.6	98.7	98.6	98.9	99.3
Water and sewerage maintenance	241.4	247.2	250.0	252.3	253.9	255.2	256.5	241.5	247.3	250.5	253.0	254.7	256.2	257.6
<b>Household furnishings and operations</b>	189.2	195.8	196.9	199.0	201.3	203.0	204.2	188.1	193.9	194.9	196.8	199.2	200.7	201.9
Housefurnishings	162.6	166.9	167.6	169.3	171.5	172.7	173.4	162.4	165.9	166.5	167.9	170.4	171.5	172.2
Textile housefurnishings	173.1	178.6	176.7	182.9	187.2	188.2	187.3	173.1	177.3	175.3	181.2	185.3	186.3	186.1
Household linens (12/77 = 100)	106.1	108.3	105.4	110.1	113.9	114.8	114.4	105.8	107.2	106.0	109.8	113.2	113.8	113.4
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	109.7	114.6	115.1	118.2	119.7	119.9	119.3	110.3	114.4	113.2	116.6	118.2	118.9	119.0
Furniture and bedding	176.9	182.8	184.0	185.2	189.2	190.9	191.9	176.4	182.7	183.6	184.3	187.9	189.4	190.1
Bedroom furniture (12/77 = 100)	112.8	118.3	119.1	120.5	122.5	124.3	125.0	110.8	116.0	116.8	117.5	119.2	120.9	121.7
Sofas (12/77 = 100)	106.2	108.2	108.2	108.5	110.9	111.6	111.4	108.4	111.6	110.6	110.3	112.7	111.8	112.0
Living room chairs and tables (12/77 = 100)	103.7	108.1	108.9	110.0	110.8	110.9	110.8	105.4	109.2	109.4	111.2	111.9	112.6	112.6
Other furniture (12/77 = 100)	114.7	117.1	118.1	118.3	122.6	124.0	125.6	112.9	115.9	117.8	117.5	121.3	123.1	123.5
Appliances including TV and sound equipment	135.6	137.5	137.8	138.3	138.8	139.3	139.9	135.8	136.9	137.2	137.8	139.0	139.7	140.2
Television and sound equipment (12/77 = 100)	104.0	105.3	105.3	105.4	105.7	105.7	105.7	103.8	104.8	104.9	104.9	105.5	105.4	105.4
Television	102.8	103.6	103.7	103.7	104.0	104.0	104.1	102.2	102.2	102.2	102.3	102.9	102.8	102.8
Sound equipment (12/77 = 100)	106.1	107.8	107.8	108.1	108.3	108.3	108.3	106.3	108.0	108.2	108.2	108.7	108.6	108.7
Household appliances	155.4	157.9	158.5	159.4	160.2	161.4	162.6	156.0	157.1	157.7	158.8	160.7	162.3	163.4
Refrigerators and home freezer	152.4	156.7	156.7	156.5	157.9	160.6	162.7	156.9	159.0	159.4	159.7	161.4	163.5	166.0
Laundry equipment (12/77 = 100)	109.8	113.6	114.1	115.0	116.8	117.5	118.2	109.9	112.8	113.8	114.7	116.6	117.8	118.5
Other household appliances (12/77 = 100)	109.7	109.9	110.5	111.3	111.2	111.5	112.1	108.8	108.2	108.6	109.5	110.7	111.6	111.8
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	110.0	108.6	110.0	110.8	110.9	110.0	110.3	109.6	108.1	109.2	110.5	111.1	111.6	111.9
Office machines, small electric appliances, and air conditioners (12/77 = 100)	109.3	111.4	111.1	112.0	111.6	113.1	114.2	108.0	108.3	107.8	108.4	110.2	111.6	111.7
Other household equipment (12/77 = 100)	109.3	113.0	114.6	115.9	117.3	118.4	119.0	109.0	111.8	113.3	114.4	116.0	117.0	117.8
Floor and window coverings, infants' laundry cleaning and outdoor equipment (12/77 = 100)	108.5	111.7	113.1	114.5	116.4	118.2	117.6	104.6	107.4	108.9	109.4	110.8	113.1	113.2
Clocks, lamps, and decor items (12/77 = 100)	105.2	110.1	111.6	112.7	114.9	115.6	117.6	105.9	107.3	109.4	109.8	112.3	112.6	114.4
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	113.0	117.2	119.9	121.4	122.6	123.4	124.1	111.7	115.2	117.3	118.9	120.8	121.4	121.7
Lawn equipment, power tools, and other hardware (12/77 = 100)	107.9	110.3	110.6	111.7	112.2	113.5	114.0	110.1	112.5	113.0	114.2	115.0	115.9	117.4
Housekeeping supplies	220.5	229.2	231.1	235.0	238.0	240.7	243.6	219.4	227.2	228.8	232.8	235.5	238.1	241.2
Soaps and detergents	209.6	221.2	224.1	228.9	232.1	233.2	235.0	208.2	219.7	222.2	226.5	230.0	231.1	232.1
Other laundry and cleaning products (12/77 = 100)	110.1	114.7	116.1	117.2	117.0	117.6	119.8	110.0	114.5	115.6	117.1	116.9	118.1	119.5
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	116.3	120.5	120.6	121.2	123.9	126.2	128.6	117.1	120.9	121.8	123.4	125.8	128.1	130.8
Stationery, stationery supplies, and gift wrap (12/77 = 100)	107.3	111.9	111.6	112.7	113.8	115.6	116.3	106.7	109.3	109.0	112.3	113.6	114.9	116.0
Miscellaneous household products (12/77 = 100)	111.6	116.9	117.7	119.4	120.9	122.0	123.0	110.4	114.7	115.0	116.6	118.3	119.2	120.9
Lawn and garden supplies (12/77 = 100)	111.7	112.5	114.4	119.4	121.4	123.8	125.2	110.0	109.9	111.3	113.3	114.0	116.5	118.9
Housekeeping services	246.2	258.1	260.0	261.6	263.6	266.0	267.6	244.9	257.5	259.2	261.1	262.7	264.3	265.6
Postage	257.3	257.3	257.3	257.3	257.3	257.3	257.3	257.2	257.2	257.2	257.2	257.2	257.3	257.3
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	113.8	121.2	122.9	124.2	125.4	128.3	129.4	114.1	122.3	123.3	124.6	126.1	127.8	128.5
Appliance and furniture repair (12/77 = 100)	108.5	113.4	114.0	114.7	115.8	116.5	117.2	107.6	113.4	114.4	115.5	116.0	116.2	116.7
<b>APPAREL AND UPKEEP</b>	166.1	172.2	171.0	171.9	176.0	177.3	177.5	165.7	171.4	169.8	171.5	175.1	176.1	176.8
<b>Apparel commodities</b>	160.8	166.1	164.3	165.1	169.2	170.2	170.1	160.6	165.7	163.6	165.2	168.7	169.5	169.8
Apparel commodities less footwear	158.4	163.0	161.1	161.8	166.2	167.2	166.9	158.1	162.6	160.2	161.9	165.7	166.3	166.4
Men's and boys'	160.1	165.4	162.8	162.7	165.6	166.9	168.0	160.8	165.0	162.4	162.9	166.0	167.3	168.9
Men's (12/77 = 100)	101.1	104.3	102.6	102.3	104.3	105.0	105.7	101.8	104.2	102.3	102.4	104.4	105.2	106.3
Suits, sport coats, and jackets (12/77 = 100)	98.5	100.9	98.8	98.2	99.9	101.1	101.2	97.2	96.8	94.9	94.4	96.4	97.3	97.1
Coats and jackets (12/77 = 100)	94.8	98.0	95.5	93.6	96.9	96.5	97.3	97.9	99.1	95.6	92.2	96.9	97.0	97.2
Furnishings and special clothing (12/77 = 100)	107.4	112.3	112.2	112.7	115.0	116.6	117.9	106.1	109.9	109.3	111.1	113.2	114.2	116.4
Shirts (12/77 = 100)	103.9	110.5	108.6	109.3	111.9	111.5	112.2	105.0	111.5	108.3	109.4	112.0	111.7	113.7
Dungarees, jeans, and trousers (12/77 = 100)	100.0	100.4	98.2	97.7	98.7	99.4	100.2	102.1	103.4	102.2	102.2	102.7	104.2	105.2
Boys' (12/77 = 100)	102.8	106.6	105.6	106.3	107.5	108.9	109.7	101.9	105.8	104.7	105.9	107.5	108.7	109.6
Coats, jackets, sweaters, and shirts (12/77 = 100)	99.3	102.4	99.3	99.9	102.5	104.4	105.2	98.1	103.1	99.8	101.9	105.0	107.2	107.7
Furnishings (12/77 = 100)	107.1	111.9	111.5	110.9	112.0	113.3	114.3	106.1	110.2	109.7	109.5	110.7	111.6	112.7
Suits, trousers, sport coats, and jackets (12/77 = 100)	103.8	107.8	108.2	109.5	109.8	110.7	111.3	103.2	106.2	106.6	107.7	108.2	108.8	109.9
Women's and girls'	153.2	154.6	151.5	151.1	155.5	155.9	154.1	152.0	153.5	149.9	151.3	154.9	154.7	154.1
Women's (12/77 = 100)	102.4	102.8	100.8	100.8	103.8	103.9	102.4	102.2	103.3	100.1	101.4	103.7	103.3	103.0
Coats and jackets	164.3	170.0	166.4	163.1	167.6	168.3	162.0	173.0	167.9	165.0	162.4	167.0	167.8	162.4
Dresses	170.4	165.3	161.3	160.6	169.3	167.8	163.9	162.0	155.7	150.0	151.2	157.5	154.1	154.5
Separates and sportswear (12/77 = 100)	99.7	98.6	96.1	97.1	99.8	101.1	100.3	98.7	99.5	97.1	99.2	101.0	101.6	101.2
Underwear, nightwear, and hosiery (12/77 = 100)	105.4	108.2	108.6	110.2	111.0	111.5	111.8	106.1	109.3	109.1	110.6	111.5	111.7	112.2
Suits (12/77 = 100)	93.5	95.8	91.0	88.2	91.6	90.4	88.0	95.6	98.1	94.0	96.8	100.2	98.2	98.2
Girls' (12/77 = 100)	99.1	102.8	100.5	98.9	101.8	102.6	102.7	96.3	101.4	97.9	97.3	100.1	101.1	100.5
Coats, jackets, dresses, and suits (12/77 = 100)	98.1	100.3	97.5	95.7	98.9	99.8	99.4	95.8	97.7	91.9	92.6	95.7	96.8	95.3
Separates and sportswear (12/77 = 100)	96.3	102.6	99.9	98.2	100.8	101.4	101.8	92.2	102.9	99.8	98.1	99.8	100.5	99.9
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	105.8	107.3	106.7	105.6	108.4	109.5	110.0	104.3	1					

### 23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1979		1980					1979		1980				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>APPAREL AND UPKEEP—Continued</b>														
<b>Apparel commodities—Continued</b>														
Apparel commodities less footwear—Continued														
Infants' and toddlers' .....	221.2	227.1	224.9	226.6	231.4	234.3	237.4	223.6	230.5	229.1	232.7	237.3	241.1	242.8
Other apparel commodities .....	166.9	180.9	184.4	191.4	199.9	201.9	202.7	167.3	182.9	185.5	191.8	197.8	198.5	197.4
Sewing materials and notions (12/77 = 100) .....	101.2	102.4	103.2	106.3	107.1	107.9	109.1	96.4	100.8	101.2	105.7	107.2	106.9	108.6
Jewelry and luggage (12/77 = 100) .....	110.7	123.1	126.1	131.2	138.6	140.1	140.4	113.5	126.2	128.4	132.3	137.3	138.1	136.3
Footwear .....	175.0	184.3	183.7	184.6	187.0	188.3	189.3	175.2	183.8	183.3	183.9	186.3	188.1	189.3
Men's (12/77 = 100) .....	111.8	117.3	117.8	118.3	119.0	119.7	120.0	112.2	119.4	119.3	119.4	120.9	122.4	122.7
Boys' and girls' (12/77 = 100) .....	109.3	115.8	117.3	117.9	119.5	119.5	121.3	109.8	114.7	116.9	118.0	119.5	119.5	121.5
Womens' (12/77 = 100) .....	108.3	113.8	111.6	112.1	114.2	115.6	115.8	107.7	111.8	109.4	109.5	110.9	112.6	112.9
<b>Apparel services</b> .....	203.1	216.6	220.7	222.9	225.9	230.0	232.2	202.6	213.4	216.9	219.8	223.5	226.0	230.8
Laundry and drycleaning other than coin operated (12/77 = 100) .....	118.4	127.1	129.3	130.6	132.5	135.5	136.9	118.4	126.6	129.0	130.6	132.3	134.1	135.6
Other apparel services (12/77 = 100) .....	111.2	117.0	119.6	120.7	122.1	123.3	124.5	110.9	113.7	115.1	116.9	119.6	120.4	125.0
<b>TRANSPORTATION</b> .....	207.7	227.7	233.5	239.6	243.7	246.8	249.0	208.6	228.3	234.1	240.2	244.3	247.7	249.9
<b>Private</b> .....	208.1	227.5	233.5	239.8	244.0	247.0	249.2	208.8	228.2	234.1	240.4	244.6	248.0	250.1
New cars .....	165.8	171.7	173.9	175.3	175.0	177.0	178.9	165.3	171.7	174.1	175.4	177.7	179.6	179.6
Used cars .....	205.4	198.2	197.2	195.3	195.2	196.7	199.3	205.4	198.3	197.2	195.3	195.2	196.8	199.3
Gasoline .....	247.7	313.9	334.6	357.6	370.9	374.7	375.4	248.5	315.6	335.9	359.0	372.7	376.3	377.1
Automobile maintenance and repair .....	240.1	252.6	255.1	258.2	260.9	264.1	266.1	240.5	253.4	256.2	259.2	261.7	264.3	266.1
Body work (12/77 = 100) .....	114.1	123.3	125.0	126.5	127.3	129.1	130.6	115.2	123.1	124.3	126.1	127.2	128.4	129.7
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100) .....	114.9	120.6	121.8	123.2	124.1	126.1	126.6	115.8	121.8	123.6	124.8	126.1	127.4	127.8
Maintenance and servicing (12/77 = 100) .....	114.3	119.2	120.2	121.3	123.1	124.7	125.9	113.8	119.3	120.4	121.3	122.8	124.2	125.4
Power plant repair (12/77 = 100) .....	113.1	119.2	120.4	122.5	123.5	124.4	125.1	113.3	119.6	120.9	123.1	124.0	124.6	125.4
Other private transportation .....	196.4	207.5	209.8	212.6	216.5	221.3	224.5	196.9	208.4	210.6	213.6	217.1	223.1	226.7
Other private transportation commodities .....	171.0	185.6	188.4	191.2	192.7	194.1	195.3	172.1	186.4	188.0	191.7	193.2	195.8	196.7
Motor oil, coolant, and other products (12/77 = 100) .....	109.9	118.1	120.9	123.9	126.4	129.8	132.2	108.6	119.3	122.4	124.0	126.1	129.1	131.5
Automobile parts and equipment (12/77 = 100) .....	110.6	120.3	121.9	123.5	124.3	124.8	125.4	111.6	120.6	121.4	123.9	124.7	126.2	126.5
Tires .....	151.4	163.8	165.8	168.5	170.1	171.2	172.6	153.8	165.7	166.3	170.6	172.5	174.9	175.6
Other parts and equipment (12/77 = 100) .....	113.0	124.4	126.6	127.3	127.2	127.1	126.5	112.4	122.4	124.0	125.0	124.4	125.1	125.0
Other private transportation services .....	205.1	215.3	217.6	220.4	225.0	230.6	234.5	205.4	216.3	217.5	225.7	225.7	232.6	236.8
Automobile insurance .....	226.5	235.3	237.1	240.2	244.0	245.2	247.1	226.4	235.2	236.8	239.7	243.8	244.9	246.9
Automobile finance charges (12/77 = 100) .....	115.5	127.2	129.9	132.1	137.4	148.6	155.0	114.8	126.5	129.4	131.3	135.2	147.8	153.8
Automobile rental, registration, and other fees (12/77 = 100) .....	106.5	108.5	109.1	109.8	110.8	111.5	112.1	106.8	109.2	109.8	110.9	111.6	112.2	113.1
State registration .....	144.0	144.1	144.2	145.2	145.3	146.4	146.4	143.9	144.0	144.1	145.3	145.5	146.5	146.5
Drivers' license (12/77 = 100) .....	104.5	104.5	104.7	104.8	104.7	104.7	104.7	104.3	104.2	104.5	104.5	104.4	104.4	104.4
Vehicle inspection (12/77 = 100) .....	112.7	117.5	117.5	119.0	119.7	119.7	120.4	113.5	118.3	118.3	119.7	120.2	120.3	121.0
Other vehicle related fees (12/77 = 100) .....	113.0	117.6	118.8	119.6	122.0	122.7	124.0	115.8	122.2	123.8	125.4	127.0	127.8	130.0
<b>Public</b> .....	193.3	223.0	226.8	229.5	232.1	235.9	239.5	194.2	219.1	221.9	223.9	226.1	229.7	232.9
Airline fare .....	193.7	245.5	251.1	255.4	259.9	264.3	270.0	193.2	245.8	251.0	255.2	259.3	263.9	270.0
Intercity bus fare .....	250.1	282.2	284.7	288.5	290.7	291.5	293.6	249.2	282.3	284.8	288.2	290.2	291.0	293.4
Intracity mass transit .....	187.9	196.4	198.5	199.7	200.8	203.0	204.6	188.0	195.7	196.7	197.6	198.6	200.8	202.0
Taxi fare .....	216.2	238.5	243.1	244.0	245.6	256.4	259.9	221.8	243.9	248.9	249.3	251.2	261.6	265.7
Intercity train fare .....	205.2	236.3	237.2	237.2	237.2	237.2	237.2	205.2	236.6	237.1	237.0	237.1	237.2	251.1
<b>MEDICAL CARE</b> .....	236.3	250.7	253.9	257.9	260.2	262.0	263.4	236.3	251.7	254.9	258.7	260.9	263.1	264.9
<b>Medical care commodities</b> .....	152.4	159.2	160.5	162.1	163.5	164.9	166.4	153.3	159.9	161.0	162.7	164.4	166.0	167.2
Prescription drugs .....	140.6	146.4	147.9	149.8	150.9	152.2	153.5	141.5	147.4	148.8	150.7	152.0	153.5	154.6
Anti-infective drugs (12/77 = 100) .....	110.7	114.6	115.8	117.2	117.9	118.5	118.7	111.7	116.8	118.2	119.8	120.1	120.4	120.7
Tranquilizers and sedatives (12/77 = 100) .....	113.3	118.4	119.9	121.3	122.2	122.9	124.1	113.7	118.3	119.7	121.0	122.2	122.7	123.5
Circulatorys and diuretics (12/77 = 100) .....	107.9	111.4	112.4	113.4	113.3	114.2	114.6	108.5	112.3	113.0	114.2	114.7	115.9	116.8
Hormones, diabetic drugs, biologicals, and prescription supplies (12/77 = 100) .....	117.5	123.8	126.0	128.7	130.0	131.3	133.2	117.5	123.1	124.8	127.8	129.6	131.3	132.4
Pain and symptom control drugs (12/77 = 100) .....	111.8	117.8	118.8	119.7	120.5	121.4	122.9	112.9	118.2	119.0	120.1	121.3	122.6	124.2
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100) .....	109.2	112.1	112.6	113.7	115.5	117.1	118.2	110.1	113.7	114.2	115.2	116.5	118.5	119.5
Nonprescription drugs and medical supplies (12/77 = 100) .....	109.4	114.6	115.3	116.3	117.3	118.4	119.5	110.3	115.1	115.6	116.6	118.0	119.2	120.1
Eyeglasses (12/77 = 100) .....	106.7	110.9	111.5	112.9	114.1	115.0	116.5	107.0	110.5	111.4	112.6	114.5	115.3	116.3
Internal and respiratory over-the-counter drugs .....	169.3	177.9	179.1	180.4	182.2	184.4	186.0	170.6	178.5	179.0	180.8	183.0	185.4	186.9
Nonprescription medical equipment and supplies (12/77 = 100) .....	108.1	113.1	113.8	114.6	115.1	115.3	116.5	109.3	114.2	115.0	115.6	116.1	116.3	117.1
<b>Medical care services</b> .....	254.4	270.7	274.4	279.0	281.5	283.4	284.7	254.0	271.8	275.6	279.8	282.2	284.5	286.3
Professional services .....	224.3	235.9	238.9	242.9	245.3	248.2	250.3	225.3	238.3	241.7	245.5	247.8	251.2	253.5
Physicians' services .....	240.7	252.5	256.0	260.2	262.3	264.8	267.5	241.4	256.5	260.3	264.1	266.2	269.7	272.3
Dental services .....	212.4	224.5	227.4	231.5	234.1	237.2	238.8	214.6	226.1	229.5	233.4	235.7	238.9	241.2
Other professional services (12/77 = 100) .....	110.2	115.1	116.6	118.1	119.5	121.7	122.2	109.4	114.8	115.9	117.4	119.3	121.1	121.6
Other medical care services .....	290.9	312.8	317.4	322.7	325.3	325.8	326.3	289.0	313.0	317.3	322.1	324.4	325.3	326.5
Hospital and other medical services (12/77 = 100) .....	115.6	123.8	125.6	127.8	128.8	129.7	130.4	114.7	123.2	124.9	126.8	127.7	128.6	129.7
Hospital room .....	363.9	389.4	395.3	403.4	405.8	408.0	410.1	361.3	388.7	393.9	398.8	401.2	403.6	406.7
Other hospital and medical care services .....	114.7	122.9	124.7	126.5	127.8	128.8	129.5	113.7	122.1	123.8	125.9	126.9	128.0	129.1

**23. Continued—Consumer Price Index—U.S. city average**

[1967=100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1979		1980				1979		1980					
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>ENTERTAINMENT</b> .....	187.8	193.4	195.3	197.8	200.6	202.5	204.0	187.1	192.3	193.9	196.2	199.5	201.3	202.4
<b>Entertainment commodities</b> .....	188.1	195.2	197.6	200.4	203.4	205.7	207.0	186.8	192.4	194.2	196.9	200.3	202.8	203.4
Reading materials (12/77 = 100) .....	109.4	115.1	116.7	117.4	119.4	120.1	121.5	109.1	114.8	116.2	117.0	119.1	119.7	121.1
Newspapers .....	212.2	223.5	226.8	227.7	232.4	234.8	237.2	211.7	223.3	226.4	227.3	232.0	234.3	236.4
Magazines, periodicals, and books (12/77 = 100) .....	111.2	116.8	118.1	119.2	120.8	120.8	122.4	111.0	116.6	117.8	118.9	120.7	120.6	122.3
Sporting goods and equipment (12/77 = 100) .....	109.2	112.2	113.8	115.9	117.2	118.7	118.5	106.4	107.7	108.6	110.8	112.4	114.1	114.0
Sport vehicles (12/77 = 100) .....	110.6	112.9	.....	117.4	118.7	120.6	119.9	107.0	105.8	.....	109.1	110.8	113.0	112.5
Indoor and warm weather sport equipment (12/77 = 100) .....	105.9	107.5	107.6	108.3	109.5	111.3	112.0	102.9	106.3	106.4	107.8	109.3	110.5	110.3
Bicycles .....	158.7	167.1	170.5	174.5	177.2	178.6	179.7	158.1	167.0	170.5	174.9	177.8	179.8	180.9
Other sporting goods and equipment (12/77 = 100) .....	106.8	111.0	111.8	112.4	112.9	113.1	113.7	104.7	111.3	111.9	112.6	113.4	114.0	114.6
Toys, hobbies, and other entertainment (12/77 = 100) .....	108.2	112.1	113.2	115.1	116.9	118.4	119.4	108.6	111.8	112.6	114.3	116.4	118.0	118.1
Toys, hobbies, and music equipment (12/77 = 100) .....	108.9	111.2	112.1	114.1	115.7	117.3	118.5	109.0	109.9	110.9	112.3	114.9	116.5	115.8
Photographic supplies and equipment (12/77 = 100) .....	107.3	109.7	110.8	114.1	118.2	120.1	120.8	107.1	110.1	111.2	114.2	116.9	118.9	120.5
Pet supplies and expense (12/77 = 100) .....	107.5	115.5	116.8	117.6	118.2	119.2	120.1	108.6	116.1	116.7	117.9	119.0	120.0	120.9
<b>Entertainment services</b> .....	187.6	191.1	192.5	194.5	197.0	198.5	200.1	188.5	193.0	194.4	196.0	199.1	199.9	201.8
Fees for participant sports (12/77 = 100) .....	111.6	113.8	114.6	116.0	117.5	119.0	120.2	111.6	115.0	115.6	116.3	118.8	119.3	120.5
Admissions (12/77 = 100) .....	113.2	116.6	117.9	118.3	119.1	118.7	118.8	113.9	117.8	119.4	119.7	120.0	120.1	121.0
Other entertainment services (12/77 = 100) .....	108.1	108.6	109.1	111.4	113.2	114.8	116.4	108.8	109.0	109.3	111.8	113.9	115.1	116.5
<b>OTHER GOODS AND SERVICES</b> .....	193.9	204.0	206.3	208.1	208.9	209.8	211.2	193.8	203.0	206.0	207.7	208.3	209.2	210.6
<b>Tobacco products</b> .....	186.3	192.1	196.7	198.1	198.4	198.8	200.4	186.3	192.1	197.1	198.3	198.6	198.9	200.5
Cigarettes .....	188.6	194.7	199.7	200.9	201.2	201.4	202.9	188.9	194.8	200.3	201.3	201.6	201.6	203.2
Other tobacco products and smoking accessories (12/77 = 100) .....	110.3	113.2	113.9	115.6	116.3	117.6	119.0	109.4	112.7	113.4	114.8	115.7	117.2	118.5
<b>Personal care</b> .....	193.9	203.0	204.2	206.5	208.1	209.7	211.6	193.7	202.3	204.4	206.6	207.7	209.5	210.9
Toilet goods and personal care appliances .....	187.3	195.8	196.4	198.6	200.2	201.8	204.1	187.7	194.5	196.2	198.3	199.6	201.8	203.9
Products for the hair, hairpieces and wigs (12/77 = 100) .....	107.1	113.0	114.2	116.1	116.6	117.9	120.0	107.0	112.4	114.0	114.9	114.9	117.9	120.0
Dental and shaving products (12/77 = 100) .....	111.5	117.3	117.8	118.6	119.2	120.5	121.0	110.7	114.7	115.3	116.8	118.4	119.3	118.8
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100) .....	109.5	113.0	112.9	114.2	115.1	115.7	116.5	108.7	112.1	112.9	114.0	114.8	115.2	116.2
Other toilet goods and small personal care appliances (12/77 = 100) .....	107.1	112.1	112.1	112.9	114.7	115.4	117.4	110.4	113.1	114.0	115.6	116.6	117.2	119.0
Personal care services .....	200.4	210.0	211.6	214.2	215.7	217.2	218.8	199.8	210.2	212.7	215.0	215.8	217.2	218.1
Beauty parlor services for women .....	202.4	212.1	213.3	216.1	217.9	218.6	220.4	202.0	212.0	214.2	216.6	217.8	218.6	219.4
Haircuts and other barber shop services for men (12/77 = 100) .....	111.4	116.8	118.1	119.3	119.7	121.7	122.2	110.7	117.1	118.8	120.0	120.1	121.5	122.0
<b>Personal and educational expenses</b> .....	208.8	224.6	226.3	228.0	228.3	228.7	229.2	209.3	224.8	226.2	227.8	228.2	228.7	229.4
School books and supplies .....	191.6	202.5	206.0	206.5	206.9	207.1	207.1	194.2	206.0	209.8	210.4	210.7	210.9	210.9
Personal and educational services .....	213.2	229.9	231.4	233.3	233.6	234.0	234.7	213.4	229.7	230.6	232.5	232.9	233.4	234.2
Tuition and other school fees .....	108.7	118.1	118.3	118.5	118.6	118.6	118.6	108.6	118.2	118.4	118.6	118.7	118.7	118.7
College tuition (12/77 = 100) .....	108.9	117.3	117.6	117.8	117.9	117.9	117.9	108.9	117.3	117.6	117.8	117.9	117.9	117.9
Elementary and high school tuition (12/77 = 100) .....	107.5	120.9	120.9	120.9	120.9	120.9	120.9	107.4	120.7	120.7	120.7	120.7	120.7	120.7
Personal expenses (12/77 = 100) .....	112.3	117.3	120.1	124.4	125.0	126.1	127.8	112.3	116.3	117.7	121.4	122.1	123.3	125.1
<b>Special indexes:</b>														
Gasoline, motor oil, coolant, and other products .....	245.1	309.7	329.9	352.5	365.5	369.3	370.1	245.8	311.4	331.3	353.8	367.2	370.8	371.6
Insurance and finance .....	264.5	302.1	310.5	316.7	326.3	335.2	342.6	264.4	301.6	310.0	316.2	325.6	335.2	342.8
Utilities and public transportation .....	208.8	223.5	225.0	227.9	230.9	233.4	238.9	209.3	223.0	224.4	227.2	230.2	232.6	237.9
Housekeeping and home maintenance services .....	267.1	282.2	284.7	287.6	292.0	295.7	297.6	267.8	283.4	286.0	288.7	292.0	295.1	296.5



**24. Consumer Price Index for All Urban Consumers: Cross classification of region and population size class by expenditure category and commodity and service group**

[December 1977 = 100]

Category and group	Size class A (1.25 million or more)			Size class B (385,000 - 1.250 million)			Size class C (75,000 - 385,000)			Size class D (75,000 or less)		
	1979		1980	1979		1980	1979		1980	1979		1980
	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.
<b>Northeast</b>												
<b>EXPENDITURE CATEGORY</b>												
All items	119.0	122.1	125.0	122.2	125.6	129.0	125.7	129.1	132.7	121.8	124.2	127.4
Food and beverages	120.6	122.1	124.5	121.9	124.3	127.1	123.2	126.0	128.8	121.2	123.4	125.2
Housing	119.8	122.9	126.1	123.7	126.7	130.0	132.1	135.5	140.2	123.2	124.8	127.9
Apparel and upkeep	108.9	109.5	112.5	109.0	107.1	111.1	118.5	107.3	112.7	109.8	106.8	113.0
Transportation	123.7	129.9	133.8	127.6	135.0	140.8	127.0	133.1	136.2	127.3	133.5	138.1
Medical care	117.3	120.6	122.4	120.0	121.6	122.4	118.9	121.3	122.5	119.0	121.4	122.7
Entertainment	111.5	114.4	116.7	113.5	115.7	117.9	109.8	112.2	115.7	115.1	118.9	121.5
Other goods and services	112.7	114.4	114.7	114.3	116.5	117.5	116.3	119.2	119.6	113.1	114.8	116.0
<b>COMMODITY AND SERVICE GROUP</b>												
Commodities	120.5	124.1	126.5	123.7	127.5	130.8	125.1	128.5	131.6	122.5	125.6	128.0
Commodities less food and beverages	120.4	125.3	127.8	124.6	129.1	132.5	129.7	132.9	132.2	126.6	129.3	
Services	117.2	119.5	122.9	119.9	122.5	126.3	126.6	129.9	134.5	120.7	122.2	126.5
<b>North Central</b>												
<b>EXPENDITURE CATEGORY</b>												
All items	126.3	129.6	133.2	124.6	127.2	130.9	123.7	126.4	128.9	123.0	125.8	128.7
Food and beverages	123.2	124.9	126.8	120.2	122.6	124.9	123.4	124.8	127.0	124.8	126.9	128.9
Housing	133.1	136.7	141.1	129.3	131.5	135.8	125.9	127.6	130.4	123.6	125.9	129.1
Apparel and upkeep	105.6	105.2	109.2	110.9	107.1	111.2	109.0	109.0	110.7	111.9	110.4	113.6
Transportation	127.9	133.5	138.1	127.5	133.4	137.6	129.1	135.8	139.3	127.3	132.6	137.4
Medical care	119.6	123.2	125.3	119.3	122.2	125.0	119.7	124.5	125.7	121.8	126.8	127.4
Entertainment	113.9	116.9	118.9	111.0	111.5	114.0	114.4	116.2	118.7	113.8	115.9	116.1
Other goods and services	113.6	115.4	116.2	117.7	119.4	121.5	114.0	115.5	116.7	116.1	119.1	119.8
<b>COMMODITY AND SERVICE GROUP</b>												
Commodities	125.4	128.1	130.9	122.5	124.5	127.9	123.7	125.9	128.1	122.5	124.3	126.0
Commodities less food and beverages	126.4	129.6	132.8	123.5	125.2	129.2	123.6	126.4	128.5	121.6	123.1	124.8
Services	127.7	131.8	136.6	128.0	131.6	135.6	124.1	127.1	130.3	123.8	128.2	132.9
<b>South</b>												
<b>EXPENDITURE CATEGORY</b>												
All items	123.1	127.1	130.7	124.6	128.0	131.7	14.3	127.9	131.3	122.5	125.9	128.3
Food and beverages	123.5	125.0	126.4	122.9	124.4	127.0	123.9	126.0	127.8	122.5	124.0	126.2
Housing	125.0	129.1	133.9	128.4	131.9	136.7	128.4	131.8	136.6	123.9	127.7	129.7
Apparel and upkeep	112.2	112.5	116.4	110.3	109.6	112.9	105.7	105.5	108.2	104.8	100.9	104.7
Transportation	127.6	135.7	139.7	127.8	134.7	138.4	126.4	133.7	137.2	126.3	133.1	136.5
Medical care	117.7	119.7	121.9	118.3	121.6	123.3	120.7	124.8	126.4	124.9	129.0	131.2
Entertainment	109.5	114.5	115.7	113.9	115.4	119.8	113.8	115.9	118.3	119.4	121.6	124.4
Other goods and services	115.8	118.5	119.3	115.1	117.7	118.1	115.5	117.5	118.8	118.3	121.5	121.9
<b>COMMODITY AND SERVICE GROUP</b>												
Commodities	122.6	126.7	129.3	123.1	125.9	129.0	122.7	126.4	128.7	121.9	124.7	127.2
Commodities less food and beverages	122.2	127.5	130.6	123.2	126.6	129.8	122.2	126.5	129.1	121.6	125.0	127.7
Services	123.8	127.7	132.6	126.8	131.1	135.8	126.7	130.2	135.3	123.5	127.7	129.8
<b>West</b>												
<b>EXPENDITURE CATEGORY</b>												
All items	124.8	129.6	132.8	126.6	130.6	134.1	124.5	128.1	131.4	124.3	127.1	130.4
Food and beverages	123.4	124.2	126.5	125.8	126.9	128.8	122.9	123.8	125.7	123.7	125.7	128.0
Housing	127.0	132.9	136.3	130.2	134.6	139.1	127.8	131.0	134.8	125.4	127.1	129.7
Apparel and upkeep	110.0	113.6	115.7	111.5	112.4	115.8	104.4	104.2	107.7	114.9	114.7	121.8
Transportation	129.9	137.4	141.2	128.8	135.8	139.2	129.0	137.1	141.2	128.2	134.8	139.6
Medical care	121.9	125.6	128.8	121.3	124.8	126.9	119.9	124.6	126.7	122.7	126.2	128.9
Entertainment	111.1	113.5	117.8	115.9	118.6	123.1	114.9	117.8	121.0	119.2	123.6	127.5
Other goods and services	115.5	119.2	121.2	116.5	120.3	121.5	113.6	116.3	117.7	116.4	119.7	122.5
<b>COMMODITY AND SERVICE GROUP</b>												
Commodities	123.1	127.0	129.5	125.3	128.8	131.5	123.6	126.7	129.0	123.0	126.7	129.8
Commodities less food and beverage	123.0	128.1	130.8	125.1	129.6	132.7	123.8	127.8	130.4	122.7	127.2	130.6
Services	126.9	133.2	137.2	128.4	133.0	137.7	125.9	130.0	134.8	126.3	127.6	131.2

**25. Consumer Price Index—U.S. city average, and selected areas**

[1967 = 100 unless otherwise specified]

Area <sup>1</sup>	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1979		1980					1979		1980				
	May	Dec.	Jan.	Feb.	Mar.	Apr.	May	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
U.S. city average <sup>2</sup> .....	214.1	229.9	233.2	236.4	239.8	242.5	244.9	214.3	230.0	233.3	236.5	239.9	242.6	245.1
Anchorage, Alaska (10/67=100) .....	203.5	...	218.2	...	223.5	...	226.5	202.5	...	215.9	...	220.2	...	223.1
Atlanta, Ga. ....	...	223.3	...	230.3	...	235.3	...	...	227.0	...	233.5	...	239.3	...
Baltimore, Md. ....	215.3	...	234.4	...	245.0	...	249.1	216.0	...	234.5	...	243.9	...	247.8
Boston, Mass. ....	209.5	...	227.3	...	234.2	...	236.9	208.7	...	226.9	...	234.2	...	236.8
Buffalo, N.Y. ....	...	221.2	...	227.9	...	233.7	...	...	220.7	...	227.9	...	233.3	...
Chicago, Ill.-Northwestern Ind. ....	210.1	228.4	230.3	232.7	235.5	240.1	243.1	209.6	227.8	229.9	232.5	235.2	239.8	243.0
Cincinnati, Ohio-Ky.-Ind. ....	221.5	...	239.5	...	247.8	...	251.6	223.1	...	241.0	...	249.7	...	252.9
Cleveland, Ohio ....	...	232.5	...	243.5	...	247.3	...	...	233.2	...	244.1	...	248.4	...
Dallas-Ft. Worth, Tex. ....	...	234.1	...	241.7	...	251.4	...	...	233.3	...	240.9	...	249.6	...
Denver-Boulder, Colo. ....	231.1	...	247.3	...	255.2	...	258.0	233.2	...	250.9	...	259.4	...	262.4
Detroit, Mich. ....	213.9	233.2	237.2	240.4	242.9	248.2	248.4	214.1	232.2	236.4	239.9	242.4	248.0	248.9
Honolulu, Hawaii ....	...	214.8	...	220.9	...	227.4	...	...	215.5	...	221.3	...	228.4	...
Houston, Tex. ....	...	248.7	...	255.9	...	260.8	...	...	246.0	...	251.9	...	257.3	...
Kansas City, Mo.-Kansas ....	...	233.7	...	238.7	...	243.8	...	...	232.4	...	236.6	...	242.2	...
Los Angeles-Long Beach, Anaheim, Calif. ....	211.0	228.0	232.6	237.6	241.3	244.6	249.1	212.4	229.9	235.0	240.0	243.9	247.8	252.6
Miami, Fla. (11/77=100) ....	112.5	...	123.3	...	127.7	...	129.7	113.8	...	124.9	...	128.8	...	130.9
Milwaukee, Wis. ....	217.1	...	236.4	...	242.7	...	250.3	219.5	...	240.8	...	247.8	...	255.2
Minneapolis-St. Paul, Minn.-Wis. ....	...	234.0	...	237.9	...	244.3	...	...	234.8	...	239.6	...	245.7	...
New York, N.Y.-Northeastern N.J. ....	210.5	222.9	226.1	228.0	231.2	233.1	234.5	210.3	222.4	225.5	227.7	230.8	232.4	234.1
Northeast, Pa. (Scranton) ....	207.3	...	224.4	...	229.0	...	232.5	209.6	...	225.8	...	231.3	...	235.8
Philadelphia, Pa.-N.J. ....	210.6	223.7	227.2	231.1	234.6	237.4	239.4	211.4	224.6	228.0	231.6	235.1	237.9	239.9
Pittsburgh, Pa. ....	...	229.2	...	235.5	...	240.9	...	...	229.7	...	235.9	...	242.2	...
Portland, Ore.-Wash. ....	220.7	...	244.6	...	253.6	...	257.3	221.9	...	243.5	...	251.7	...	255.9
St. Louis, Mo.-Ill. ....	211.1	...	232.7	...	238.1	...	241.8	210.3	...	233.5	...	238.5	...	242.6
San Diego, Calif. ....	228.3	...	254.0	...	258.3	...	269.7	226.1	...	251.0	...	255.6	...	264.8
San Francisco-Oakland, Calif. ....	...	230.2	...	240.7	...	243.5	...	...	229.0	...	240.0	...	242.8	...
Seattle-Everett, Wash. ....	212.4	...	236.0	...	243.8	...	249.6	210.9	...	233.8	...	241.3	...	246.8
Washington, D.C.-Md.-Va. ....	216.0	...	231.9	...	238.8	...	241.2	217.8	...	233.0	...	239.2	...	242.0

<sup>1</sup>The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated Area is used for New York and Chicago.

<sup>2</sup>Average of 85 cities.

## 26. Producer Price Indexes, by stage of processing

[1967=100]

Commodity grouping	Annual average 1978	1979							1980					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June
<b>FINISHED GOODS</b>														
Finished goods .....	194.6	213.7	216.2	217.3	220.7	224.2	226.3	228.1	232.4	235.7	238.2	240.0	241.0	242.6
Finished consumer goods .....	192.6	212.7	215.6	217.5	221.7	224.7	227.1	229.1	233.5	237.6	240.6	241.6	242.8	244.5
Finished consumer foods .....	206.7	223.6	224.9	223.5	228.1	226.7	230.5	232.1	231.4	231.6	233.0	228.7	230.0	231.0
Crude .....	215.5	227.1	224.9	231.7	214.0	215.5	228.1	227.9	226.0	220.1	230.8	222.2	227.7	223.4
Processed .....	204.1	221.3	222.8	220.7	227.0	225.5	228.6	230.3	229.7	230.4	231.0	227.1	228.1	229.4
Nondurable goods less foods .....	195.4	221.7	227.1	233.4	239.0	243.3	245.5	247.9	254.7	262.7	270.8	276.5	279.1	280.3
Durable goods .....	165.8	180.4	181.6	181.6	182.9	189.0	190.0	191.8	199.1	202.1	199.7	200.3	199.7	202.7
Capital equipment .....	199.1	215.8	217.2	216.5	217.8	222.8	223.9	225.3	229.3	230.5	231.8	235.8	236.0	237.5
<b>INTERMEDIATE MATERIALS</b>														
Intermediate materials, supplies, and components .....	215.5	240.3	244.6	247.5	251.0	255.0	256.3	258.7	265.9	271.6	273.2	274.5	275.8	277.7
Materials and components for manufacturing .....	208.3	232.1	236.0	238.0	240.7	244.3	245.5	247.8	255.5	259.8	259.0	259.7	261.8	263.9
Materials for food manufacturing .....	202.3	222.3	226.7	225.1	228.9	225.5	227.8	230.4	226.0	245.6	239.8	238.7	255.4	260.2
Materials for nondurable manufacturing .....	195.8	218.1	222.5	225.3	227.6	231.4	233.4	235.3	241.1	244.0	246.6	251.8	254.9	256.0
Materials for durable manufacturing .....	237.2	268.9	273.3	275.2	278.8	284.7	284.6	287.8	303.7	306.5	301.1	296.2	295.1	298.3
Components for manufacturing .....	189.1	205.3	207.7	209.3	211.3	213.2	214.8	216.3	219.2	223.2	225.2	227.4	228.0	229.6
Materials and components for construction .....	224.4	245.6	247.4	249.2	252.5	254.7	254.0	253.7	257.7	262.1	265.1	265.3	265.3	267.3
Processed fuels and lubricants .....	296.4	349.5	364.8	384.6	399.4	410.6	416.5	424.6	444.0	464.0	481.1	486.7	488.3	489.6
Manufacturing industries .....	270.4	293.8	304.0	311.2	317.2	322.5	325.2	332.2	340.5	351.4	357.4	358.4	363.6	368.2
Nonmanufacturing industries .....	320.0	404.9	425.5	458.8	483.0	500.6	510.0	519.1	550.3	579.9	608.9	619.5	617.0	614.7
Containers .....	212.5	234.9	235.4	237.6	237.9	242.6	243.8	247.1	250.9	251.6	253.3	262.5	263.7	265.3
Supplies .....	196.9	216.1	219.6	219.6	221.2	224.9	226.4	229.2	232.5	239.0	239.9	240.7	240.8	242.3
Manufacturing industries .....	183.6	202.7	204.2	208.6	209.4	212.2	213.7	216.3	220.9	222.5	223.3	226.8	228.4	230.2
Nonmanufacturing industries .....	204.0	223.2	227.8	225.4	227.5	231.7	233.3	236.1	238.7	247.8	248.7	248.1	247.5	248.8
Feeds .....	200.2	226.2	241.3	220.8	224.0	228.9	226.9	230.4	224.4	223.3	219.1	207.1	210.6	208.1
Other supplies .....	201.9	219.2	221.5	223.1	224.9	228.9	231.2	233.9	238.3	249.6	251.6	253.5	251.9	254.1
<b>CRUDE MATERIALS</b>														
Crude materials for further processing .....	240.1	283.0	287.1	281.7	288.3	289.5	290.8	296.2	296.8	308.4	303.3	296.9	300.7	299.5
Foodstuffs and feedstuffs .....	215.3	248.2	254.1	243.7	248.7	247.5	246.4	249.7	243.0	252.6	245.9	235.5	242.4	242.5
Nonfood materials .....	286.7	348.7	349.3	353.6	363.1	368.9	374.9	384.2	398.9	414.3	412.2	413.5	410.4	407.9
Nonfood materials except fuel .....	235.4	286.6	285.2	286.1	293.3	298.1	304.6	311.6	330.1	341.7	339.4	336.9	393.8	389.8
Manufacturing industries .....	240.8	295.9	294.0	294.9	302.8	307.8	314.9	322.5	342.1	354.9	352.1	349.0	340.2	334.6
Construction .....	185.7	205.4	207.2	208.6	209.9	212.6	214.8	216.6	226.0	228.7	229.7	232.4	232.9	234.2
Crude fuel .....	463.7	563.1	570.7	586.2	604.0	612.9	617.4	634.5	636.3	664.8	663.3	677.4	690.4	695.5
Manufacturing industries .....	481.9	601.3	610.4	629.2	651.8	662.5	667.8	688.3	690.3	725.7	723.5	740.8	756.7	762.6
Nonmanufacturing industries .....	459.6	544.3	550.7	563.6	577.8	585.5	589.3	603.9	605.7	628.8	627.9	639.8	650.6	655.1
<b>SPECIAL GROUPINGS</b>														
Finished goods excluding foods .....	188.9	208.5	211.4	213.2	216.2	221.3	222.8	224.6	230.5	234.6	237.4	241.2	242.0	243.8
Finished consumer goods excluding foods .....	183.7	205.2	208.4	212.3	216.3	220.6	223.1	225.3	232.3	238.3	242.0	245.5	246.8	248.8
Intermediate materials less foods and feeds .....	216.4	241.3	245.4	249.0	252.5	256.8	258.1	260.5	268.4	273.7	275.7	277.4	278.0	279.9
Intermediate foods and feeds .....	201.0	223.0	231.0	223.1	226.6	226.0	226.9	229.8	224.8	237.5	232.3	227.5	239.7	242.1
Crude materials less agricultural products .....	316.6	389.5	391.7	396.9	408.6	417.0	424.1	435.0	452.9	469.3	468.4	469.4	464.6	463.7

<sup>1</sup> Data for February 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

**27. Producer Price Indexes, by commodity groupings**

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1978	1979						1980						
			June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. 1	Mar.	Apr.	May	June
	<b>All commodities</b> .....	209.3	233.5	236.9	238.3	242.0	245.6	247.2	249.7	254.9	260.2	261.5	262.3	263.7	265.2
	<b>All commodities (1957-59 = 100)</b> .....	222.1	247.7	251.4	252.8	256.7	260.6	262.3	267.3	270.2	275.6	277.5	278.3	279.7	282.5
	<b>Farm products and processed foods and feeds</b> .....	206.6	229.0	232.2	227.5	231.8	230.6	232.3	234.6	231.9	237.0	234.9	229.2	233.9	234.2
	<b>Industrial commodities</b> .....	209.4	234.0	237.5	240.6	244.2	249.0	250.6	253.1	260.6	265.9	268.2	270.7	271.2	273.0
	<b>FARM PRODUCTS AND PROCESSED FOODS AND FEEDS</b>														
01	Farm products .....	212.5	242.8	246.8	238.5	241.0	239.6	240.2	242.5	236.4	242.3	239.3	228.9	233.6	233.4
01-1	Fresh and dried fruits and vegetables .....	216.5	226.4	226.7	241.7	208.3	218.0	216.5	210.7	219.0	220.6	218.3	223.0	243.8	233.4
01-2	Grains .....	182.5	218.7	247.4	229.1	224.4	229.0	226.6	227.9	214.6	223.3	217.9	210.8	219.0	215.3
01-3	Livestock .....	220.1	264.0	256.0	240.2	256.4	251.7	248.3	252.5	247.8	257.2	251.8	230.5	233.3	240.0
01-4	Live poultry .....	199.8	182.9	183.8	171.9	173.5	162.0	195.5	194.7	195.2	184.6	180.1	171.9	171.3	166.6
01-5	Plant and animal fibers .....	193.4	219.5	207.6	207.9	211.3	212.9	215.4	222.0	239.0	269.5	254.9	266.9	272.7	247.0
01-6	Fluid milk .....	219.7	243.8	247.6	250.0	258.5	260.8	262.5	264.0	262.3	263.8	263.1	265.4	265.4	265.5
01-7	Eggs .....	158.6	170.7	167.6	166.8	175.4	155.9	178.7	198.4	165.6	150.4	184.2	153.3	145.7	146.8
01-8	Hay, hayseeds, and oilseeds .....	215.8	258.4	260.1	251.9	240.9	235.6	229.8	230.3	218.1	224.7	215.9	205.1	206.7	207.4
01-9	Other farm products .....	274.9	281.0	311.9	310.8	315.9	313.6	318.3	319.4	301.1	304.7	311.5	304.8	311.0	309.4
02	Processed foods and feeds .....	202.6	220.6	223.3	220.5	225.8	224.8	227.1	229.3	228.5	233.1	231.5	228.5	233.1	233.8
02-1	Cereal and bakery products .....	190.3	206.3	212.4	216.0	218.7	219.8	222.5	223.6	225.4	229.9	231.3	231.5	233.5	233.1
02-2	Meats, poultry, and fish .....	217.1	241.4	237.7	225.5	239.9	234.2	239.3	242.8	239.6	239.6	239.2	226.0	224.8	226.6
02-3	Dairy products .....	188.4	208.4	209.0	215.2	218.3	218.1	219.3	219.9	221.0	220.8	223.3	227.8	228.9	229.9
02-4	Processed fruits and vegetables .....	202.6	221.5	223.6	224.6	225.1	223.4	222.4	222.6	222.9	223.3	223.6	224.5	225.2	227.3
02-5	Sugar and confectionery .....	197.8	211.1	215.7	218.3	212.1	218.9	222.9	234.4	235.0	287.5	263.6	274.8	327.4	324.7
02-6	Beverages and beverage materials .....	200.0	208.5	214.1	216.5	217.9	218.9	221.2	221.6	224.0	224.8	226.0	227.9	231.4	233.6
02-7	Fats and oils .....	225.3	243.6	253.2	251.7	253.3	246.0	241.9	235.6	225.1	226.4	222.4	214.7	212.1	213.0
02-8	Miscellaneous processed foods .....	199.0	211.1	212.7	217.6	219.0	220.8	222.2	223.1	225.4	223.5	224.7	225.1	223.2	223.0
02-9	Manufactured animal feeds .....	197.4	220.5	234.9	216.2	219.2	224.0	222.4	224.9	219.7	219.8	216.8	205.4	207.3	205.4
	<b>INDUSTRIAL COMMODITIES</b>														
03	Textile products and apparel .....	159.8	168.4	169.3	170.5	171.3	172.0	172.8	173.1	175.2	176.5	178.9	180.6	181.5	182.4
03-1	Synthetic fibers (12/75 = 100) .....	109.6	118.5	119.5	120.6	123.6	124.7	124.2	124.7	127.0	127.2	129.4	130.7	133.5	134.8
03-2	Processed yarns and threads (12/75 = 100) .....	102.4	108.6	109.5	110.6	111.7	112.1	112.5	112.7	114.6	118.0	118.9	122.1	123.5	124.4
03-3	Gray fabrics (12/75 = 100) .....	118.6	125.4	128.3	128.7	128.7	129.7	130.7	132.3	132.7	133.3	133.7	136.1	135.3	133.7
03-4	Finished fabrics (12/75 = 100) .....	103.8	107.6	108.2	109.0	109.1	108.9	109.7	109.9	110.5	111.1	113.1	114.5	115.2	115.5
03-81	Apparel .....	152.4	160.2	160.3	161.4	161.6	162.2	163.1	162.6	165.5	166.8	168.3	169.1	169.7	172.0
03-82	Textile housefurnishings .....	178.6	189.3	189.9	190.5	193.9	196.3	196.5	197.1	199.0	199.7	201.2	201.6	202.6	202.7
04	Hides, skins, leather, and related products .....	200.0	268.0	261.9	257.9	251.1	253.9	248.9	249.2	255.7	250.9	246.8	243.6	240.7	241.0
04-1	Hides and skins .....	360.5	611.0	566.5	511.9	465.3	478.8	447.6	443.9	468.8	404.8	348.7	328.6	289.7	315.7
04-2	Leather .....	238.6	414.6	385.2	365.9	330.0	343.6	319.8	324.8	347.6	340.3	311.0	297.6	290.4	284.4
04-3	Footwear .....	183.0	221.1	221.8	225.4	226.9	227.5	227.9	227.9	229.1	228.0	231.8	231.9	231.9	232.1
04-4	Other leather and related products .....	177.0	212.3	212.1	210.9	210.1	209.7	208.4	208.0	213.1	214.8	217.9	216.3	217.5	216.0
05	Fuels and related products and power .....	322.5	393.7	411.8	432.8	454.8	468.5	476.9	487.9	508.0	532.7	553.5	566.3	571.9	574.8
05-1	Coal .....	430.0	452.0	452.5	454.2	452.5	454.6	455.1	458.6	459.3	459.6	460.7	463.3	464.8	466.9
05-2	Coke .....	411.8	430.6	430.6	430.6	430.6	431.2	431.2	431.2	430.6	430.6	430.6	430.6	430.6	430.6
05-3	Gas fuels <sup>2</sup> .....	428.7	522.3	548.4	572.4	603.4	619.9	637.0	662.4	677.5	716.6	720.3	730.2	744.8	750.1
05-4	Electric power .....	250.6	269.9	274.8	278.8	280.5	283.5	281.9	287.0	290.5	299.3	305.7	310.4	316.4	320.5
05-61	Crude petroleum <sup>3</sup> .....	300.1	356.4	370.6	385.7	422.1	436.7	450.4	470.8	513.6	515.1	522.8	533.9	540.1	549.0
05-7	Petroleum products, refined <sup>4</sup> .....	321.0	423.6	449.8	482.8	513.7	533.7	545.4	555.2	583.3	620.4	657.9	677.3	680.6	681.1
06	Chemicals and allied products .....	198.8	219.2	225.0	228.5	230.8	234.2	236.0	238.2	246.0	248.7	251.6	258.1	261.1	261.7
06-1	Industrial chemicals <sup>5</sup> .....	225.6	259.3	270.4	277.1	280.0	285.7	288.4	292.3	302.9	307.9	310.7	316.8	324.8	327.3
06-21	Prepared paint .....	192.3	201.3	205.3	205.3	206.0	206.7	209.4	210.7	223.3	223.3	223.3	231.5	236.8	236.8
06-22	Paint materials .....	212.7	239.5	246.7	247.9	252.0	253.6	256.6	256.8	259.9	263.4	266.2	271.1	272.9	274.0
06-3	Drugs and pharmaceuticals .....	148.1	159.0	159.2	159.6	161.0	162.8	163.0	164.4	166.5	167.6	168.9	172.8	171.8	173.0
06-4	Fats and oils, inedible .....	315.8	374.1	381.6	376.4	379.9	366.9	344.3	327.1	325.6	302.2	299.9	298.2	294.7	255.8
06-5	Agricultural chemicals and chemical products .....	198.4	209.2	211.2	215.3	219.4	224.3	229.5	232.9	241.9	248.0	256.0	258.3	258.3	257.7
06-6	Plastic resins and materials .....	199.8	230.1	244.5	250.1	252.0	260.0	261.4	262.5	270.4	272.1	273.9	285.6	287.8	287.9
06-7	Other chemicals and allied products .....	181.8	190.5	191.8	194.4	195.8	197.0	198.8	201.4	209.4	211.3	214.5	223.3	225.0	226.3
07	Rubber and plastic products .....	174.8	193.1	195.5	198.8	200.7	203.0	204.9	205.9	207.8	210.7	212.7	214.6	215.1	217.1
07-1	Rubber and rubber products .....	185.3	204.8	209.5	214.6	217.1	220.3	223.7	224.3	226.1	231.5	232.3	234.6	235.3	237.6
07-11	Crude rubber .....	187.2	222.0	226.1	233.0	232.2	236.5	237.2	240.2	252.7	263.9	254.9	263.8	263.0	263.2
07-12	Tires and tubes .....	179.2	198.9	206.2	211.6	215.0	218.3	223.1	223.1	225.1	231.6	231.2	231.3	231.8	234.6
07-13	Miscellaneous rubber products .....	189.6	203.5	205.4	209.4	211.9	214.7	217.1	217.7	215.9	267.8	223.4	225.9	227.5	229.7
07-2	Plastic products (6/78 = 100) .....	111.0	111.2	112.2	113.0	114.0	114.3	115.2	116.3	116.7	118.6	119.5	119.6	120.8	
08	Lumber and wood products .....	276.0	299.8	300.1	304.7	309.7	308.8	298.9	290.1	290.0	294.7	295.7	275.2	271.6	279.8
08-1	Lumber .....	322.4	354.8	355.0	365.3	373.9	370.3	355.6	339.5	336.3	341.4	340.6	310.1	301.3	313.0
08-2	Millwork .....	235.4	258.9	252.5	249.6	250.9	255.6	252.3	250.3	254.1	258.0	264.7	256.6	250.9	253.0
08-3	Plywood .....	235.6	238.6	249.7	254.3	257.9	254.0	242.2	237.9	238.2	243.4	240.0	219.2	229.9	241.6
08-4	Other wood products .....	211.8	238.5	237.6	237.4	238.0	237.7	239.9	240.5	242.2	243.1	243.1	241.7	240.7	238.7

See footnotes at end of table.

27. Continued — Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1978	1979						1980						
			June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June
<b>INDUSTRIAL COMMODITIES — Continued</b>															
09	Pulp, paper, and allied products	195.6	216.6	218.3	222.2	223.0	227.5	229.5	231.7	237.4	239.2	241.6	246.5	248.9	251.3
09-1	Pulp, paper, and products, excluding building paper and board	195.6	217.8	219.6	223.6	224.3	229.0	231.1	233.4	239.2	240.8	243.1	248.0	250.3	252.7
09-11	Woodpulp	266.5	308.3	320.3	320.6	320.6	337.5	338.0	338.0	356.6	356.4	359.0	386.8	388.0	388.0
09-12	Wastepaper	191.2	207.2	207.9	206.6	206.7	206.7	220.0	221.2	222.9	223.4	224.9	242.5	242.5	206.6
09-13	Paper	206.1	227.5	228.2	229.5	230.3	238.7	241.8	242.7	245.5	247.2	250.5	253.6	256.5	258.3
09-14	Paperboard	179.6	199.8	201.7	206.4	209.6	211.3	212.8	215.4	221.8	223.7	225.9	230.2	239.2	242.7
09-15	Converted paper and paperboard products	185.6	207.6	209.0	214.4	214.6	217.3	219.0	221.9	227.7	229.5	231.3	234.6	236.1	239.3
09-2	Building paper and board	187.4	180.8	178.0	179.1	182.6	183.5	183.6	184.6	186.2	191.7	198.7	201.3	206.8	208.9
10	Metals and metal products	227.1	258.2	260.8	261.8	263.7	269.6	271.1	273.6	284.6	288.9	286.3	284.6	281.9	282.4
10-1	Iron and steel	253.6	283.2	286.8	286.1	285.5	289.2	292.0	292.8	297.4	300.3	301.6	307.0	304.7	303.1
10-13	Steel mill products	254.5	277.3	284.6	284.7	284.8	288.3	288.8	289.3	293.6	294.2	295.6	304.1	305.5	305.8
10-2	Nonferrous metals	207.8	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7
10-3	Metal containers	243.4	267.3	267.2	268.4	268.7	279.9	280.9	280.9	283.3	284.4	287.8	301.1	302.7	302.7
10-4	Hardware	200.4	217.1	218.5	220.1	221.5	224.0	225.5	226.2	228.2	230.4	230.5	236.9	238.2	239.7
10-5	Plumbing fixtures and brass fittings	199.1	217.0	219.6	222.4	223.0	223.5	225.4	226.5	232.8	236.7	242.4	243.7	247.4	248.5
10-6	Heating equipment	174.4	185.2	186.0	188.1	191.3	192.2	193.1	195.6	199.5	202.6	202.0	204.2	204.0	205.1
10-7	Fabricated structural metal products	226.4	248.2	250.5	252.2	253.7	256.3	256.7	257.7	258.9	259.7	262.9	268.2	269.4	270.0
10-8	Miscellaneous metal products	212.0	230.1	231.8	235.6	236.7	238.5	238.6	239.1	240.6	241.6	245.1	247.1	247.7	251.4
11	Machinery and equipment	196.1	212.4	214.8	216.0	217.7	220.0	221.3	223.4	227.6	230.2	231.9	235.8	237.0	238.8
11-1	Agricultural machinery and equipment	213.1	229.4	231.2	233.3	237.4	240.0	243.4	244.2	248.4	249.9	250.4	252.8	254.9	255.7
11-2	Construction machinery and equipment	232.9	254.0	257.0	258.5	258.9	263.9	265.4	268.8	276.0	278.3	278.4	282.9	284.2	286.8
11-3	Metalworking machinery and equipment	217.0	239.1	241.4	243.5	246.4	249.6	252.2	254.6	258.9	261.8	264.1	269.9	272.6	275.4
11-4	General purpose machinery and equipment	216.6	235.1	237.1	238.3	240.2	242.8	244.2	247.6	251.0	253.3	255.7	260.0	262.3	264.3
11-6	Special industry machinery and equipment	223.0	246.1	249.8	251.0	251.2	253.8	254.9	256.1	260.6	263.2	265.6	271.9	273.1	274.5
11-7	Electrical machinery and equipment	164.9	177.6	179.9	181.2	182.5	184.3	184.9	186.6	190.6	194.3	195.9	198.7	199.2	201.2
11-9	Miscellaneous machinery	194.7	209.4	209.7	212.0	213.6	214.9	216.3	220.3	221.1	222.7	226.8	229.9	228.7	228.8
12	Furniture and household durables	160.4	170.2	170.7	171.5	172.7	175.1	176.4	177.9	183.4	185.6	184.6	183.1	184.1	185.3
12-1	Household furniture	173.5	185.3	185.8	186.2	188.5	190.1	193.0	194.8	197.4	198.5	196.9	198.9	200.3	202.0
12-2	Commercial furniture	201.5	221.8	222.7	222.7	222.7	223.3	223.3	225.1	226.9	231.4	232.8	233.5	233.8	235.5
12-3	Floor coverings	141.6	146.5	149.1	150.0	150.4	152.1	152.8	152.9	159.0	158.5	160.7	161.7	163.6	162.2
12-4	Household appliances	153.0	160.0	161.1	162.2	162.7	163.2	164.5	165.3	166.5	168.9	169.7	170.2	172.1	174.7
12-5	Home electronic equipment	90.2	92.8	90.2	90.2	90.3	90.3	90.3	90.5	91.0	91.2	88.8	88.9	89.1	89.3
12-6	Other household durable goods	203.1	220.6	223.7	226.6	231.0	245.6	248.2	254.4	287.4	295.3	287.6	266.8	265.2	266.1
13	Nonmetallic mineral products	222.8	246.9	249.5	249.9	254.6	256.2	257.4	259.6	268.4	274.0	276.1	282.8	282.9	283.2
13-11	Flat glass	172.8	184.0	184.1	184.1	184.5	184.7	185.4	186.4	191.0	191.0	191.4	191.4	191.4	193.6
13-2	Concrete ingredients	217.7	243.3	245.1	245.9	246.7	248.3	249.6	251.0	265.0	266.6	266.0	270.5	271.1	271.9
13-3	Concrete products	214.0	243.7	245.2	246.3	248.7	250.1	250.6	253.2	265.4	266.7	268.6	273.0	275.0	275.9
13-4	Structural clay products excluding refractories	197.2	216.5	220.3	222.3	223.7	221.1	221.8	226.7	229.6	231.0	231.5	234.4	229.5	230.2
13-5	Refractories	216.5	232.6	240.8	241.7	242.4	244.6	247.4	248.0	248.5	251.1	254.8	262.6	265.2	266.7
13-6	Asphalt roofing	292.0	323.0	328.4	329.9	333.0	337.5	347.4	346.5	356.6	372.5	387.6	404.7	398.2	400.7
13-7	Gypsum products	229.1	251.3	251.8	252.3	254.9	255.3	256.2	255.0	255.4	262.2	267.6	264.0	256.5	257.1
13-8	Glass containers	244.4	265.2	265.2	265.2	265.2	265.2	274.2	274.3	274.3	274.6	294.6	294.6	294.6	294.6
13-9	Other nonmetallic minerals	275.6	302.0	310.5	309.9	336.0	341.2	342.2	342.2	351.8	381.7	386.9	399.5	399.5	394.5
14	Transportation equipment (12/68 = 100)	173.5	187.5	188.4	185.9	186.6	194.2	194.8	195.6	198.7	198.2	198.8	202.6	201.1	202.2
14-1	Motor vehicles and equipment	176.0	190.1	190.8	187.8	188.6	197.1	197.4	198.2	200.7	200.1	200.8	204.9	203.1	204.4
14-4	Railroad equipment	252.8	274.7	280.6	280.9	281.6	286.3	288.2	289.0	297.5	299.3	301.3	303.9	304.6	306.2
15	Miscellaneous products	184.3	205.2	207.0	208.9	213.1	218.9	221.4	227.4	242.9	262.9	256.2	252.2	250.9	257.4
15-1	Toys, sporting goods, small arms, ammunition	163.2	174.7	176.9	177.6	179.8	181.1	181.2	183.0	190.9	193.5	194.2	195.3	196.4	197.2
15-2	Tobacco products	198.5	214.4	214.8	221.3	221.9	222.1	222.2	226.6	236.6	237.2	237.1	237.6	244.6	245.1
15-3	Notions	182.0	190.6	192.0	191.9	191.9	195.7	195.8	196.8	203.1	203.2	207.2	216.8	217.0	217.0
15-4	Photographic equipment and supplies	145.7	151.6	152.0	152.2	154.3	157.4	161.2	164.3	165.9	218.6	219.4	212.6	200.0	203.4
15-51	Mobile homes (12/74 = 100)	126.4	137.9	138.2	139.5	140.7	142.9	144.0	144.1	144.7	146.8	146.6	148.9	149.9	150.6
15-9	Other miscellaneous products	210.6	255.8	261.4	261.4	272.5	288.3	293.3	308.8	351.6	378.3	352.3	339.2	339.1	358.8

<sup>1</sup> Data for February 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.  
<sup>2</sup> Prices for natural gas are lagged 1 month.

<sup>3</sup> Includes only domestic production.

<sup>4</sup> Most prices for refined petroleum products are lagged 1 month.

<sup>5</sup> Some prices for industrial chemicals are lagged 1 month.

**28. Producer Price Indexes, for special commodity groupings**

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1978	1979								1980					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June	
All commodities — less farm products	208.4	232.0	235.4	237.5	241.4	245.3	247.0	249.5	255.7	260.9	262.6	264.3	265.4	267.0	
All foods	206.4	223.8	225.4	224.7	228.5	226.9	230.0	232.2	231.2	235.8	234.7	231.7	237.4	237.7	
Processed foods	206.7	224.7	226.4	224.8	230.8	228.9	231.8	234.2	233.3	238.6	236.8	234.0	239.0	239.9	
Industrial commodities less fuels	197.2	217.0	219.0	220.3	222.0	225.9	226.9	228.5	234.7	238.0	238.4	239.9	239.9	241.6	
Selected textile mill products (Dec. 1975 = 100)	108.8	113.5	114.0	115.1	115.8	116.4	117.0	117.2	118.9	119.3	121.1	122.1	123.1	123.5	
Hosiery	106.3	112.7	114.1	113.0	112.7	113.3	114.6	115.3	119.2	119.4	119.9	120.7	121.5	122.2	
Underwear and nightwear	158.9	168.3	168.5	170.8	170.8	171.2	171.6	172.9	175.3	177.4	181.8	182.0	182.8	187.4	
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns	190.5	209.5	215.0	218.6	220.9	224.3	226.3	228.7	236.3	239.2	242.1	248.4	251.6	252.8	
Pharmaceutical preparations	140.6	151.7	151.7	152.0	153.6	155.6	155.4	156.9	159.2	160.3	161.7	165.9	164.7	166.1	
Lumber and wood products, excluding millwork and other wood products	298.3	321.7	325.3	333.9	341.0	337.3	323.3	310.8	308.6	313.9	312.2	284.5	281.7	293.5	
Special metals and metal products	209.6	233.7	235.5	234.9	236.4	243.4	244.5	246.3	253.7	256.0	254.8	255.6	254.2	254.2	
Fabricated metal products	216.2	235.7	237.4	238.8	241.1	244.0	244.6	245.3	247.2	248.4	251.3	256.0	257.0	258.9	
Copper and copper products	155.6	193.0	191.9	197.1	200.5	212.2	213.8	217.1	227.7	260.7	240.9	224.7	212.3	208.7	
Machinery and motive products	190.4	206.0	207.7	207.2	208.5	213.4	213.9	215.9	219.7	220.9	222.2	226.1	226.1	227.7	
Machinery and equipment, except electrical	214.3	232.6	235.1	236.2	238.2	240.8	242.5	244.8	249.1	251.1	252.9	257.5	259.0	260.8	
Agricultural machinery, including tractors	216.3	233.8	235.8	238.4	243.6	246.3	250.8	251.5	256.1	257.2	257.7	259.7	261.7	262.5	
Metalworking machinery	228.8	256.8	260.1	261.7	265.6	269.5	272.7	276.0	281.9	284.4	288.1	294.3	296.8	299.9	
Numerically controlled machine tools (Dec. 1971 = 100)	179.1	195.8	202.2	204.2	206.5	208.5	208.8	211.2	213.1	215.4	216.8	223.9	227.0	228.7	
Total tractors	228.7	248.2	251.2	253.8	256.0	261.2	262.5	266.2	273.0	275.1	274.3	278.4	280.0	281.8	
Agricultural machinery and equipment less parts	212.7	229.5	231.4	233.7	238.4	241.0	244.9	245.8	250.0	251.5	252.1	254.2	256.1	256.8	
Farm and garden tractors less parts	216.1	231.8	233.9	237.6	244.1	247.6	250.5	251.1	256.0	257.5	258.8	261.0	262.0	262.7	
Agricultural machinery excluding tractors less parts	216.7	235.7	237.6	239.2	243.5	245.4	251.3	252.0	256.4	257.3	257.0	259.0	261.7	262.6	
Industrial valves	232.3	255.8	257.0	258.2	260.1	261.8	263.1	266.1	271.0	273.5	276.1	283.5	286.6	288.6	
Industrial fittings	232.7	260.4	260.8	262.3	264.3	272.6	276.8	276.8	280.4	282.8	284.0	289.9	291.5	295.9	
Abrasive grinding wheels	208.1	222.8	222.8	224.6	224.6	239.0	239.0	239.0	239.0	244.0	244.0	258.4	261.3	261.3	
Construction materials	228.3	250.3	252.3	254.3	256.6	258.5	256.7	255.4	259.3	262.6	264.6	262.1	261.4	264.1	

<sup>1</sup> Data for February 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

**29. Producer Price Indexes, by durability of product**

[1967 = 100]

Commodity grouping	Annual average 1978	1979								1980					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June	
Total durable goods	204.9	225.8	227.6	228.0	230.1	234.6	235.3	237.0	243.8	247.1	246.6	247.2	246.4	248.3	
Total nondurable goods	211.9	238.8	243.7	245.8	251.1	253.7	256.2	259.3	263.2	270.2	273.1	274.0	277.3	278.4	
Total manufactures	204.2	226.5	229.8	231.7	235.2	239.0	240.6	242.6	248.4	253.2	254.8	255.5	257.8	259.4	
Durable	204.7	224.6	226.6	227.2	229.4	234.0	234.6	236.2	242.9	245.7	245.2	246.2	245.9	248.2	
Nondurable	203.0	227.8	232.5	235.9	241.0	244.0	246.6	249.0	253.9	260.8	264.7	267.3	270.3	271.3	
Total raw or slightly processed goods	234.6	269.7	274.3	272.1	276.9	278.7	281.0	285.9	287.6	295.9	295.6	290.4	292.7	293.0	
Durable	209.6	272.8	265.4	259.8	255.7	259.2	265.8	267.8	282.8	305.3	302.5	286.0	262.2	249.9	
Nondurable	235.6	268.5	274.0	272.0	277.5	279.2	281.2	286.3	286.9	294.2	294.0	289.7	294.0	295.3	

<sup>1</sup> Data for February 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

**30. Producer Price Indexes for the output of selected SIC industries**

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1978	1979								1980					
			June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June	
<b>MINING</b>																
1011	Iron ores (12/75 = 100)	121.9	136.0	136.0	138.8	138.1	140.2	140.2	142.0	142.0	147.3	147.3	152.6	152.6	152.6	
1092	Mercury ores (12/75 = 100)	126.6	277.0	270.8	245.8	252.1	275.0	252.1	300.0	308.3	335.4	330.0	337.5	337.5	332.9	
1211	Bituminous coal and lignite	430.2	452.5	453.1	454.8	452.9	455.1	455.5	458.9	459.2	459.6	460.7	462.9	464.4	463.3	
1311	Crude petroleum and natural gas	358.2	444.1	457.5	476.0	508.4	522.1	533.9	551.3	582.7	598.0	600.6	612.3	620.2	631.3	
1442	Construction sand and gravel	194.6	217.0	219.3	220.1	221.0	224.0	224.7	225.6	238.8	243.2	243.6	248.4	249.4	250.1	
1455	Kaolin and ball clay (6/76 = 100)	111.8	125.5	125.5	125.5	125.5	126.7	124.2	129.3	136.6	136.6	123.4	136.6	136.6	136.6	
<b>MANUFACTURING</b>																
2011	Meat packing plants	216.7	249.1	243.8	229.3	247.2	238.9	241.5	243.9	240.8	240.1	238.9	225.6	227.4	229.9	
2013	Sausages and other prepared meats	215.2	217.1	214.7	203.4	211.7	211.9	213.4	220.0	211.9	207.8	209.1	197.7	194.7	190.6	
2016	Poultry dressing plants	192.5	177.8	178.4	169.6	171.2	163.1	188.3	188.5	186.1	178.2	173.5	164.5	164.7	164.2	
2021	Creamery butter	205.2	225.3	227.5	237.9	240.6	240.1	241.7	243.1	241.8	242.8	243.4	252.8	253.7	255.7	

See footnotes at end of table.

30. Continued— Producer Price Indexes for the output of selected SIC industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1978	1979							1980					
			June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June
<b>MANUFACTURING—Continued</b>															
2022	Cheese natural and processed (12/72 = 100)	169.6	185.6	186.3	195.4	200.8	196.8	193.6	193.9	195.4	192.9	197.4	203.6	203.6	204.2
2024	Ice cream and frozen desserts (12/72 = 100)	154.8	171.5	171.5	175.0	176.1	177.5	179.9	180.1	180.9	181.5	185.0	191.4	192.1	195.2
2033	Canned fruits and vegetables	193.2	207.5	209.9	210.5	212.0	212.9	212.2	212.2	213.4	213.6	214.8	216.3	217.4	220.1
2034	Dehydrated food products (12/73 = 100)	131.3	181.0	182.0	180.7	170.0	158.2	156.2	157.3	157.6	159.0	156.4	157.5	156.4	156.3
2041	Flour mills (12/71 = 100)	147.0	174.6	190.9	176.9	183.5	184.2	184.4	184.1	181.7	183.6	182.6	175.9	183.3	181.8
2044	Rice milling	207.6	206.8	206.8	218.7	223.5	227.3	231.8	218.1	217.5	233.0	258.0	260.4	254.5	236.0
2048	Prepared foods, n.e.c. (12/75 = 100)	107.3	118.9	128.1	119.4	120.9	123.6	124.3	125.0	122.0	122.6	121.8	116.8	117.2	116.6
2061	Raw cane sugar	190.7	207.0	209.0	216.8	216.7	224.3	223.3	248.4	260.5	374.9	276.0	320.2	456.1	402.4
2063	Beet sugar	188.5	199.7	202.0	199.4	200.0	204.7	210.6	223.2	224.6	293.2	303.1	295.4	338.0	343.9
2067	Chewing gum	218.0	242.2	242.9	242.9	242.9	242.9	262.3	262.3	262.3	262.3	281.9	281.9	282.0	282.0
2074	Cottonseed oil mills	183.1	210.4	224.5	214.1	217.9	214.9	204.7	205.6	182.4	184.4	170.4	154.8	150.5	155.1
2075	Soybean oil mills	225.6	251.1	262.8	250.0	248.6	244.7	242.4	241.9	235.1	230.4	219.3	212.6	212.5	209.1
2077	Animal and marine fats and oils	287.9	335.3	352.0	321.4	333.8	333.7	315.2	300.7	298.1	292.6	293.7	274.0	263.0	238.3
2083	Malt	181.5	201.4	201.4	201.4	214.9	214.9	228.2	228.2	244.1	244.1	244.1	244.1	244.1	244.1
2085	Distilled liquor, except brandy (12/75 = 100)	106.7	113.6	113.6	115.7	117.1	117.1	118.1	118.1	118.6	118.7	118.7	118.7	118.9	118.9
2091	Canned and cured seafoods (12/73 = 100)	136.4	142.1	148.5	148.2	154.0	154.3	155.6	159.8	160.9	164.0	165.7	170.2	173.2	175.3
2092	Fresh or frozen packaged fish	303.8	397.6	403.7	391.5	389.2	400.1	391.4	388.4	389.7	385.5	392.6	371.5	361.6	362.8
2095	Roasted coffee (12/72 = 100)	262.3	244.2	271.0	279.2	279.2	280.0	287.5	287.5	281.3	273.9	274.0	273.9	273.9	283.1
2098	Macaroni and spaghetti	176.9	188.6	203.5	210.4	210.4	210.4	221.5	227.7	227.7	227.7	227.7	230.5	230.5	230.5
2111	Cigarettes	204.6	221.4	221.5	228.9	229.1	229.2	229.2	234.3	245.8	245.9	245.9	246.1	254.2	254.3
2121	Cigars	141.4	145.3	149.8	150.1	150.1	149.8	150.4	150.4	151.2	154.2	151.8	152.7	152.7	157.1
2131	Chewing and smoking tobacco	222.0	245.9	246.4	246.4	255.8	260.4	260.8	260.8	260.9	265.1	267.3	274.3	274.6	274.7
2211	Weaving mills, cotton (12/72 = 100)	181.1	194.3	196.1	196.5	198.7	201.1	201.6	201.9	204.4	206.9	209.1	210.9	211.6	211.9
2221	Weaving mills, synthetic (12/77 = 100)	109.0	114.1	116.2	116.3	116.2	116.8	117.3	117.2	118.1	118.3	119.6	122.4	121.8	120.4
2251	Women's hosiery, except socks (12/75 = 100)	91.5	97.6	99.6	98.1	97.5	98.2	100.3	100.2	103.3	103.3	103.7	104.4	105.4	105.4
2254	Knit underwear mills	164.1	173.3	172.9	174.0	174.0	174.3	174.6	178.3	182.5	184.1	186.2	186.4	187.1	190.5
2257	Circular knit fabric mills (6/76 = 100)	98.5	95.8	96.1	96.4	96.2	96.9	98.4	98.6	99.3	100.4	103.1	103.6	104.1	104.7
2261	Finishing plants, cotton (6/76 = 100)	111.0	120.9	122.5	123.2	124.0	126.1	126.3	126.6	128.7	129.6	131.7	131.9	133.2	133.7
2262	Finishing plants, synthetics, silk (6/76 = 100)	101.4	107.0	107.5	108.2	108.3	109.3	109.7	109.8	110.3	109.4	110.3	111.3	112.1	111.5
2271	Woven carpets and rugs (12/75 = 100)	114.7	117.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
2272	Tufted carpets and rugs	125.3	128.1	127.6	128.6	129.0	129.8	130.1	130.1	134.7	134.5	137.5	135.9	138.7	137.5
2281	Yarn mills, except wool (12/71 = 100)	167.4	175.7	177.5	177.4	179.4	181.2	183.0	183.7	188.0	197.8	199.3	203.8	204.5	202.9
2282	Throwing and winding mills (6/76 = 100)	99.2	107.5	108.5	109.7	111.2	110.4	109.6	109.2	110.1	110.6	111.3	114.8	116.3	114.8
2284	Thread mills (6/76 = 100)	114.6	120.4	120.5	128.1	128.1	128.4	128.4	128.6	128.7	129.2	129.3	133.9	142.2	142.1
2298	Cordage and twine (12/77 = 100)	99.3	105.4	105.4	113.5	115.1	114.9	114.9	114.9	115.0	117.2	118.5	123.6	123.8	125.0
2311	Men's and boys' suits and coats	194.3	204.5	208.8	206.5	206.5	206.6	206.8	206.7	209.0	208.1	209.7	205.7	207.0	207.4
2321	Men's and boys' shirts and nightwear	180.8	193.5	194.7	195.9	196.0	196.1	196.6	196.3	197.7	196.2	197.3	202.9	203.5	204.9
2322	Men's and boys' underwear	180.6	188.7	188.7	190.0	190.0	190.0	190.0	194.0	199.8	202.0	204.0	204.2	204.3	208.5
2323	Men's and boys' neckwear (12/75 = 100)	102.3	103.4	103.4	110.9	110.9	110.9	110.9	110.9	112.4	112.4	112.4	106.3	106.3	106.3
2327	Men's and boys' separate trousers	152.7	162.5	162.5	162.7	162.7	162.9	163.4	163.5	164.2	174.2	174.4	174.8	174.9	175.1
2328	Men's and boys' work clothing	195.2	209.0	208.9	210.7	210.9	213.4	219.1	219.6	225.1	233.6	235.4	240.9	241.7	242.5
2331	Women's and misses' blouses and waists (6/78 = 100)	( <sup>2</sup> )	100.5	102.6	102.7	102.8	103.0	105.9	106.8	107.1	106.6	107.2	107.6	107.7	107.8
2335	Women's and misses' dresses (12/77 = 100)	100.7	105.9	106.4	108.3	108.3	108.7	108.8	108.8	112.9	113.8	113.9	113.9	113.9	114.0
2341	Women's and children's underwear (12/72 = 100)	132.1	143.3	144.2	145.3	145.3	146.7	147.4	147.7	149.4	150.0	152.4	152.4	153.2	155.2
2342	Brassieres and allied garments (12/75 = 100)	111.7	117.5	117.5	117.8	117.8	117.8	117.8	118.8	119.7	122.9	124.9	125.4	125.4	127.0
2361	Children's dresses and blouses (12/77 = 100)	( <sup>2</sup> )	102.1	102.4	102.4	103.7	105.7	105.7	105.6	105.3	105.3	106.0	106.0	106.0	106.7
2381	Fabric dress and work gloves	214.4	243.9	245.4	245.4	245.4	245.4	246.9	246.9	257.7	261.7	264.8	267.5	271.1	271.1
2394	Canvas and related products (12/77 = 100)	99.6	106.9	108.4	111.0	111.4	112.3	112.1	120.1	122.1	122.8	123.4	123.4	123.4	123.4
2396	Automotive and apparel trimmings (12/77 = 100)	106.3	114.3	114.3	114.3	114.3	114.3	114.3	114.3	114.3	114.3	122.3	122.3	122.3	122.3
2421	Sawmills and planing mills (12/71 = 100)	228.9	250.9	251.3	259.1	265.6	262.2	250.2	237.9	234.8	239.3	239.1	215.7	209.3	218.1
2436	Softwood veneer and plywood (12/75 = 100)	150.1	140.7	148.1	153.4	156.0	153.1	142.9	138.9	138.5	143.7	139.8	121.4	129.6	140.5
2439	Structural wood members, n.e.c. (12/75 = 100)	136.2	150.0	150.0	149.9	150.8	158.2	158.2	158.2	158.2	158.2	158.3	158.2	152.1	152.1
2448	Wood pallets and skids (12/75 = 100)	149.4	167.0	166.9	166.8	167.9	167.9	171.0	170.5	169.8	167.0	166.3	164.6	162.8	159.7
2451	Mobile homes (12/74 = 100)	126.5	138.0	138.2	139.6	140.7	143.0	144.0	144.1	144.8	146.9	146.7	149.0	150.0	150.6
2492	Particleboard (12/75 = 100)	159.7	137.4	134.3	134.7	138.5	139.5	136.8	134.5	136.9	150.7	158.9	161.9	167.3	171.7
2511	Wood household furniture (12/71 = 100)	152.4	164.0	164.5	164.6	168.0	169.3	172.3	174.5	177.5	178.2	177.6	179.7	180.8	182.4
2512	Upholstered household furniture (12/71 = 100)	143.1	149.4	150.0	150.2	151.6	151.8	153.8	155.7	155.9	158.7	156.6	158.7	158.9	160.3
2515	Mattresses and bedsprings	156.3	164.1	164.5	165.8	165.8	168.9	172.3	172.3	169.9	170.5	169.7	171.5	174.8	174.8
2521	Wood office furniture	194.4	214.2	216.8	216.8	216.8	217.6	217.6	221.9	226.2	233.8	233.8	233.9	233.9	233.9
2611	Pulp mills (12/73 = 100)	178.5	196.6	205.4	205.7	205.8	213.5	213.9	213.9	225.2	225.1	227.4	244.9	246.0	246.0
2621	Paper mills, except building (12/74 = 100)	115.7	129.5	130.2	131.0	131.4	135.1	136.5	136.8	139.0	139.8	142.7	145.1	146.1	146.6
2631	Paperboard mills (12/74 = 100)	106.4	118.5	119.7	121.9	123.4	125.4	126.3	127.6	131.3	132.3	134.1	137.0	141.5	143.1
2647	Sanitary paper products	251.4	271.9	276.4	285.9	285.4	286.3	288.4	290.9	295.8	303.9	311.6	312.2	318.1	321.1
2654	Sanitary food containers	170.8	189.1	189.6	189.6	191.8	195.8	198.2	199.9	202.6	204.8	207.			

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30. Continued—Producer Price Indexes for the output of selected SIC industries

[1967=100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1978	1979								1980					
			June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb. <sup>1</sup>	Mar.	Apr.	May	June	
3021	Rubber and plastic footwear (12/71 = 100)	158.7	169.6	171.0	173.4	173.4	173.5	173.5	173.5	173.5	173.5	173.8	173.8	173.8	173.8	173.9
3031	Reclaimed rubber (12/73 = 100)	154.3	169.1	169.2	169.2	177.7	178.8	179.2	179.5	179.7	180.0	182.7	183.7	184.3	184.3	184.3
3079	Miscellaneous plastic products (6/78 = 100)		110.7	111.4	112.3	113.1	114.3	114.6	115.6	116.6	117.0	118.7	120.1	120.3	121.6	121.6
3111	Leather tanning and finishing (12/77 = 100)	119.1	195.8	181.8	172.9	155.2	161.9	150.8	153.5	164.3	160.8	146.7	140.8	137.9	134.6	134.6
3142	House slippers (12/75 = 100)	122.5	142.0	135.0	135.0	135.8	135.8	135.9	135.9	143.5	145.4	146.7	146.8	146.8	146.8	146.8
3143	Men's footwear, except athletic (12/75 = 100)	127.1	155.4	155.4	158.2	160.1	160.4	160.3	160.3	160.3	157.9	158.4	158.4	158.4	158.6	158.6
3144	Women's footwear, except athletic	164.1	195.4	198.7	201.5	201.6	202.3	204.0	204.0	205.6	206.3	213.5	213.8	213.8	213.8	213.8
3171	Women's handbags and purses (12/75 = 100)	111.4	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.9	131.9	132.1	132.1	140.8	140.9
3211	Flat glass (12/71 = 100)	142.7	151.8	151.9	151.9	152.3	152.6	153.3	153.9	157.6	157.6	157.9	157.9	157.9	158.9	158.9
3221	Glass containers	244.3	265.2	265.2	265.2	265.2	265.2	265.2	274.2	274.3	274.3	274.5	294.5	294.5	294.5	294.5
3241	Cement, hydraulic	251.2	283.7	285.4	285.4	285.4	285.4	285.5	286.2	305.7	305.9	303.2	309.8	310.7	310.8	310.8
3251	Brick and structural clay tile	230.8	259.7	261.0	263.3	265.9	261.3	261.3	262.7	268.3	270.4	271.9	276.4	278.5	278.5	278.5
3253	Ceramic wall and floor tile (12/75 = 100)	107.7	113.0	120.2	120.2	120.2	120.2	120.2	130.3	130.4	130.4	130.4	130.4	117.6	117.6	117.6
3255	Clay refractories	221.4	236.9	246.5	246.7	247.1	251.0	252.9	254.0	255.1	259.4	265.3	275.4	277.1	277.5	277.5
3259	Structural clay products, n.e.c.	176.3	187.8	188.2	192.1	192.1	192.8	192.3	196.5	196.3	198.1	196.7	200.6	201.6	204.9	204.9
3261	Vitreous plumbing fixtures	189.7	206.4	210.1	212.4	213.1	214.5	215.7	217.3	219.2	224.6	226.7	227.6	236.1	235.8	235.8
3262	Vitreous china food utensils	268.8	290.6	297.5	297.5	298.0	298.0	305.4	308.2	308.2	308.2	308.2	313.4	313.4	318.6	318.6
3263	Fine earthenware food utensils	228.1	236.4	238.8	238.8	246.0	246.0	248.4	294.3	294.3	294.0	294.8	293.6	293.6	294.4	294.4
3269	Pottery products, n.e.c. (12/75 = 100)	122.2	129.0	131.0	131.0	133.3	133.3	135.5	150.1	150.1	150.1	150.0	151.3	151.4	152.6	152.6
3271	Concrete block and brick	202.0	232.7	232.7	235.7	237.8	240.0	240.0	240.2	249.5	250.6	252.3	259.3	259.4	259.4	259.4
3273	Ready-mixed concrete	217.6	247.5	249.6	250.5	252.4	254.0	254.6	257.0	270.8	272.6	274.9	278.9	281.6	282.5	282.5
3274	Lime (12/75 = 100)	129.5	140.1	141.8	142.9	144.2	144.6	144.3	144.6	149.5	153.5	155.5	156.7	156.9	157.4	157.4
3275	Gypsum products	229.5	251.9	252.3	252.8	255.4	255.9	256.8	255.6	255.9	262.8	268.1	264.6	257.0	257.5	257.5
3291	Abrasive products (12/71 = 100)	172.3	185.8	187.7	188.6	190.4	195.1	195.3	196.5	199.4	203.3	203.9	210.1	211.9	213.5	213.5
3297	Nonclay refractories (12/74 = 100)	133.6	143.9	148.1	149.1	149.7	150.1	152.3	152.3	152.6	153.3	154.2	157.4	159.7	161.2	161.2
3312	Blast furnaces and steel mills	262.3	285.8	292.8	293.0	293.2	296.4	297.1	297.7	302.4	302.9	304.1	311.9	313.2	313.4	313.4
3313	Electrometallurgical products (12/75 = 100)	94.8	112.3	116.5	116.5	116.0	116.2	117.5	117.6	117.8	117.8	118.0	118.7	118.5	118.7	118.7
3316	Cold finishing of steel shapes	241.0	261.3	270.6	270.8	270.9	271.7	273.4	273.9	274.1	277.1	277.2	285.9	288.1	288.2	288.2
3317	Steel pipes and tubes	255.2	264.5	271.9	271.3	271.3	273.1	273.2	280.5	281.0	283.6	286.9	286.9	286.9	290.5	290.5
3321	Gray iron foundries (12/68 = 100)	233.5	254.5	253.9	253.8	254.8	267.1	269.6	269.7	273.7	276.9	275.7	278.4	279.0	279.9	279.9
3333	Primary zinc	223.2	275.2	281.4	265.5	264.2	265.2	257.8	265.7	266.1	272.4	279.6	274.2	268.2	268.6	268.6
3334	Primary aluminum	217.4	238.5	244.9	247.4	248.2	256.0	263.2	266.6	267.0	267.0	267.8	276.0	287.0	288.6	288.6
3351	Copper rolling and drawing	170.2	211.7	211.2	213.6	216.7	226.3	222.6	225.0	231.0	253.1	238.7	230.1	222.9	220.4	220.4
3353	Aluminum sheet plate and foil (12/75 = 100)	137.6	148.8	149.6	149.8	150.0	150.7	151.3	151.7	153.2	153.5	155.5	158.0	157.6	157.7	157.7
3354	Aluminum extruded products (12/75 = 100)	134.3	147.6	150.3	151.9	151.9	155.2	157.4	158.0	158.8	158.9	160.8	167.6	167.7	167.7	167.7
3355	Aluminum rolling, drawing, n.e.c. (12/75 = 100)	119.7	131.6	132.7	133.1	133.5	136.9	139.9	140.5	140.7	141.0	141.2	143.8	145.2	146.5	146.5
3411	Metal cans	238.5	262.2	262.2	262.9	263.5	273.8	274.6	274.7	276.6	277.1	279.5	295.1	295.2	294.9	294.9
3425	Hand saws and saw blades (12/72 = 100)	147.9	162.5	162.8	166.3	166.4	167.1	169.5	169.8	173.1	174.6	175.4	177.8	181.3	181.7	181.7
3431	Metal sanitary ware	209.1	224.1	226.4	228.9	229.2	230.1	231.7	232.9	237.8	242.1	243.1	245.5	249.7	249.9	249.9
3465	Automotive stampings (12/75 = 100)	118.8	127.1	127.8	130.9	131.6	132.4	132.4	132.4	132.4	132.4	133.0	133.8	134.1	138.1	138.1
3482	Small arms ammunition (12/75 = 100)	119.5	131.4	134.0	134.0	134.0	133.2	133.6	143.2	143.2	143.2	147.3	146.3	147.1	150.2	150.2
3493	Steel springs, except wire	204.6	220.5	221.6	222.1	222.8	223.7	224.1	225.6	226.1	226.6	228.4	228.9	228.9	230.1	230.1
3494	Valves and pipe fittings (12/71 = 100)	185.5	204.2	205.3	206.2	207.5	210.4	212.5	214.3	216.9	219.6	221.3	227.3	229.1	231.2	231.2
3498	Fabricated pipe and fittings	265.5	290.7	294.8	294.8	294.9	297.3	297.4	297.4	301.7	301.8	303.5	306.8	306.9	313.8	313.8
3519	Internal combustion engines, n.e.c.	220.1	239.2	242.3	245.7	251.8	254.2	254.9	254.9	260.5	261.8	264.2	269.2	270.2	270.3	270.3
3531	Construction machinery (12/76 = 100)	114.0	124.0	125.6	126.3	126.5	128.9	129.4	130.9	134.6	135.7	135.8	138.0	138.7	140.0	140.0
3532	Mining machinery (12/72 = 100)	209.5	226.4	231.2	231.5	232.7	233.1	235.4	236.4	245.8	247.1	244.8	254.1	256.2	257.1	257.1
3533	Oilfield machinery and equipment	246.2	290.0	292.0	293.3	296.8	300.5	302.8	308.1	314.2	316.2	319.0	329.5	332.9	337.4	337.4
3534	Elevators and moving stairways	204.2	214.2	215.4	214.6	219.1	219.4	220.6	220.9	225.6	226.1	228.8	232.6	234.1	242.5	242.5
3542	Machine tools, metal forming types (12/71 = 100)	213.6	240.6	244.6	245.1	247.9	249.8	253.7	256.7	266.1	268.1	271.2	276.1	275.7	279.8	279.8
3546	Power driven hand tools (12/76 = 100)	111.1	118.7	119.2	120.2	120.4	122.0	122.8	124.4	126.3	126.6	127.3	128.6	130.4	130.6	130.6
3552	Textile machinery (12/69 = 100)	179.9	192.6	195.0	197.5	198.2	199.3	200.6	200.6	202.6	205.2	207.0	212.5	213.0	217.0	217.0
3553	Woodworking machinery (12/72 = 100)	168.1	184.5	185.9	187.7	190.0	192.6	192.7	192.9	201.2	201.6	205.5	212.7	212.5	214.0	214.0
3576	Scales and balances, excluding laboratory	179.7	193.7	194.8	195.4	195.4	195.7	199.5	201.0	204.2	205.8	204.1	205.1	208.2	208.6	208.6
3592	Carburetors, pistons, rings, valves (6/76 = 100)	129.2	138.7	139.2	139.6	140.7	142.8	145.1	145.3	147.5	147.8	148.5	152.5	152.8	153.2	153.2
3612	Transformers	158.3	168.5	167.9	167.6	168.4	171.2	174.0	171.6	172.9	176.6	177.4	180.0	181.7	183.2	183.2
3623	Welding apparatus, electric (12/72 = 100)	178.1	191.9	193.5	194.1	195.1	196.9	198.6	200.3	201.3	203.3	205.3	207.3	209.8	211.0	211.0
3631	Household cooking equipment (12/75 = 100)	114.8	120.9	122.0	123.4	124.3	124.4	125.9	126.3	128.7	129.3	129.3	129.6	132.5	133.4	133.4
3632	Household refrigerators, freezers (6/76 = 100)	109.6	112.6	113.6	114.3	115.1	115.1	115.7	116.3	117.0	118.5	118.2	119.0	119.0	121.5	121.5
3633	Household laundry equipment (12/73 = 100)	141.0	147.2	148.8	149.9	150.6	150.9	152.3	153.5	154.0	156.6	158.2	159.0	159.7	162.8	162.8
3635	Household vacuum cleaners	135.5	141.5	141.6	141.7	141.9	144.5	144.7	145.8	146.1	149.7	149.9	150.2	149.2	149.6	149.6
3636	Sewing machines (12/75 = 100)	111.2	121.1	121.8	122.2	122.2	122.6	122.6	122.6	122.6	129.2	128.6	128.6	128.6	128.6	128.6
3641	Electric lamps	214.7	229.7	240.8	244.3	242.7	244.8	238.7	240.8	248.5	252.4	251.8	252.4	252.3	260.0	260.0
3644	Noncurrent-carrying wiring devices (12/72 = 100)	185.8	203.0	203.3	207.7	209.1	210.5	211.9	215.0	212.9	215.2	217.5	219.7	220.3	222.5	222.5
3646	Commercial lighting fixtures (12/75 = 100)	112.7	127.4	127.9	127.9	130.5	131.4	131.6	131.9	133.4	134.3	136.6	138.4	138.9	139.6	139.6
3648	Lighting equipment, n.e.c. (12/75 = 100)	114.6	124.6	127.6	128.2	128.5	129.6	129.8	130.5	133.0	133.2	134.5	138.6	139.4	140.4	140.4
3671	Electron tubes receiving type	200.9	226.4	226.5	226.6	227.2	227.2	227.4	227.7	229.1	229.4	229.9	253.9			



## PRODUCTIVITY DATA

**PRODUCTIVITY DATA** are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and output supplied by the U.S. Department of Commerce and the Federal Reserve Board.

### Definitions

**Output** is the constant dollar gross domestic product produced in a given period. Indexes of **output per hour of labor input**, or labor productivity, measure the value of goods and services produced per hour of labor. **Compensation per hour** includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed. **Real compensation per hour** is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers.

**Unit labor cost** measures the labor compensation cost required to produce one unit of output and is derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from the current dollar gross domestic product and dividing by output. In these tables, **Unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits. **Unit profits** include corporate profits and inventory valuation adjustments per unit of output.

The **implicit price deflator** is derived by dividing the current dollar estimate of gross product by the constant dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

The use of the term "man-hours" to identify the labor component of productivity and costs, in tables 31 through 34, has been discontinued. **Hours of all persons** is now used to describe the labor input of payroll workers, self-employed persons, and unpaid family workers. **Output per all-employee hour** is now used to describe labor productivity in nonfinancial corporations where there are no self-employed.

### Notes on the data

In the private business sector and the nonfarm business sector, the basis for the output measure employed in the computation of output per hour is Gross Domestic Product rather than Gross National Product. Computation of hours includes estimates of nonfarm and farm proprietor hours.

Output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics.

Beginning with the September 1976 issue of the *Review*, tables 31-34 were revised to reflect changeover to the new series—private business sector and nonfarm business sector—which differ from the previously published total private economy and nonfarm sector in that output imputed for owner-occupied dwellings and the household and institutions sectors, as well as the statistical discrepancy, are omitted. For a detailed explanation, see J. R. Norsworthy and L. J. Fulco, "New sector definitions for productivity series," *Monthly Labor Review*, October 1976, pages 40-42.

**31. Annual indexes of productivity, hourly compensation, unit costs, and prices, 1950-79**

[1967=100]

Item	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979
<b>Private business sector:</b>													
Output per hour of all persons	61.2	70.6	79.0	95.1	104.4	111.5	113.6	110.2	112.6	116.6	118.7	119.3	118.3
Compensation per hour	42.6	56.1	72.2	88.7	123.3	139.8	151.3	165.2	181.7	197.6	213.3	231.5	253.2
Real compensation per hour	59.2	69.9	81.4	93.9	106.0	111.6	113.6	111.8	112.7	115.9	117.5	118.5	116.4
Unit labor cost	69.6	79.4	91.4	93.3	118.2	125.4	133.2	149.8	161.3	169.5	179.7	194.0	214.0
Unit nonlabor payments	73.1	80.4	85.4	95.9	105.8	118.9	124.9	130.3	150.3	157.9	165.5	174.3	184.4
Implicit price deflator	70.8	79.8	89.3	94.2	113.9	123.2	130.3	143.1	157.5	165.5	174.8	187.2	203.8
<b>Nonfarm business sector:</b>													
Output per hour of all persons	67.2	74.6	81.2	96.0	103.2	110.1	112.0	108.6	110.7	114.6	116.4	117.0	115.7
Compensation per hour	45.6	59.0	74.5	89.4	121.9	138.4	149.2	163.0	179.3	194.2	209.6	227.6	248.0
Real compensation per hour	63.3	73.6	84.1	94.6	104.8	110.5	112.1	110.4	111.2	113.9	115.5	116.5	114.1
Unit labor cost	68.0	79.1	91.7	93.2	118.1	125.7	133.2	150.1	161.9	169.5	180.1	194.6	214.4
Unit nonlabor payments	71.4	80.1	84.4	95.8	106.0	117.4	117.8	124.7	145.9	156.0	163.8	169.9	178.6
Implicit price deflator	69.1	79.4	89.2	94.1	114.0	122.9	127.9	141.4	156.4	164.8	174.5	186.1	202.1
<b>Nonfinancial corporations:</b>													
Output per hour of all employees	( <sup>1</sup> )	( <sup>1</sup> )	80.6	96.9	103.7	110.6	112.9	108.7	112.2	115.8	117.0	118.1	117.7
Compensation per hour	( <sup>1</sup> )	( <sup>1</sup> )	76.0	90.1	121.8	136.7	147.6	161.7	177.9	192.7	208.0	225.2	245.2
Real compensation per hour	( <sup>1</sup> )	( <sup>1</sup> )	85.7	95.3	104.7	109.1	110.9	109.5	110.4	113.0	114.6	115.3	112.8
Unit labor cost	( <sup>1</sup> )	( <sup>1</sup> )	94.3	93.0	117.4	123.7	130.7	148.8	158.6	166.4	177.7	190.6	208.4
Unit nonlabor payments	( <sup>1</sup> )	( <sup>1</sup> )	90.8	100.1	103.5	114.8	116.8	124.8	148.1	156.8	164.4	170.6	179.5
Implicit price deflator	( <sup>1</sup> )	( <sup>1</sup> )	93.1	95.5	112.5	120.5	125.8	140.2	154.9	163.0	173.0	183.5	198.1
<b>Manufacturing:</b>													
Output per hour of all persons	65.8	75.0	79.8	98.4	105.0	115.7	118.9	113.0	118.8	124.0	127.7	128.3	129.5
Compensation per hour	45.6	61.2	78.0	91.1	122.3	136.6	146.5	161.7	181.1	196.1	212.7	230.2	251.3
Real compensation per hour	63.3	76.3	88.0	96.4	105.1	109.0	110.1	109.5	112.3	115.0	117.2	117.8	115.6
Unit labor cost	69.4	81.6	97.7	92.6	116.5	118.1	123.2	143.1	152.4	158.2	166.6	179.4	194.1
Unit nonlabor payments	82.3	88.6	92.3	103.3	96.2	107.4	106.4	105.6	128.4	139.6	147.4	152.4	( <sup>1</sup> )
Implicit price deflator	73.3	83.8	96.1	95.9	110.3	114.8	118.0	131.6	145.1	152.5	160.7	171.1	( <sup>1</sup> )

<sup>1</sup> Not available.

**32. Annual changes in productivity, hourly compensation, unit costs, and prices, 1969-79**

Item	Year											Annual rate of change	
	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1950-79	1960-79
<b>Private business sector:</b>													
Output per hour of all persons	0.2	0.7	3.3	3.4	1.9	-3.0	2.1	3.5	1.8	0.5	-0.9	2.5	2.1
Compensation per hour	6.9	7.2	6.7	6.2	8.2	9.2	10.0	8.8	8.0	8.5	9.3	5.9	6.9
Real compensation per hour	1.4	1.2	2.3	2.8	1.9	-1.6	.8	2.8	1.4	0.8	-1.7	2.5	2.0
Unit labor cost	6.6	6.4	3.3	2.8	6.2	12.5	7.7	5.0	6.0	8.0	10.3	3.3	4.7
Unit nonlabor payments	1.0	1.2	6.8	5.3	5.0	4.4	15.3	5.1	4.8	5.3	5.8	3.0	4.2
Implicit price deflator	4.7	4.7	4.4	3.6	5.8	9.8	10.1	5.0	5.6	7.1	8.9	3.2	4.5
<b>Nonfarm business sector:</b>													
Output per hour of all persons	-2	.2	3.0	3.6	1.7	-3.1	2.0	3.5	1.5	.5	-1.1	2.1	1.9
Compensation per hour	6.4	6.8	6.7	6.4	7.8	9.2	10.0	8.3	7.9	8.6	8.9	5.6	6.7
Real compensation per hour	1.0	.8	2.3	3.0	1.5	-1.6	.8	2.4	1.4	.9	-2.1	2.2	1.7
Unit labor cost	6.7	6.5	3.5	2.7	6.0	12.7	7.9	4.7	6.3	8.0	10.2	3.4	4.7
Unit nonlabor payments	.4	1.6	6.7	3.8	.3	5.9	17.0	6.9	5.0	3.7	5.1	2.9	4.0
Implicit price deflator	4.5	4.9	4.5	3.1	4.1	10.5	10.6	5.4	5.9	6.6	8.6	3.3	4.5
<b>Nonfinancial corporations:</b>													
Output per hour of all employees	.4	-0	3.3	3.1	2.1	-3.7	3.2	3.2	1.1	1.0	-4	( <sup>1</sup> )	1.9
Compensation per hour	6.8	6.8	6.2	5.7	7.9	9.6	10.0	8.3	7.9	8.3	8.9	( <sup>1</sup> )	6.5
Real compensation per hour	1.3	.8	1.8	2.4	1.6	-1.3	.8	2.4	1.4	.6	-2.1	( <sup>1</sup> )	1.6
Unit labor cost	6.3	6.8	2.7	2.5	5.7	13.8	6.6	4.9	6.8	7.3	9.3	( <sup>1</sup> )	4.5
Unit nonlabor payments	0	.5	7.3	3.3	1.8	6.8	18.7	5.8	4.9	3.8	5.2	( <sup>1</sup> )	3.6
Implicit price deflator	4.1	4.6	4.2	2.8	4.4	11.5	10.5	5.2	6.1	6.1	7.9	( <sup>1</sup> )	4.2
<b>Manufacturing:</b>													
Output per hour of all persons	1.3	-1	5.2	4.8	2.8	-5.0	5.1	4.4	3.0	.5	0.9	2.5	2.5
Compensation per hour	6.6	7.1	6.2	5.2	7.2	10.4	12.0	8.3	8.5	8.2	9.2	5.5	6.5
Real compensation per hour	1.2	1.1	1.9	1.8	.9	-5	2.6	2.4	1.9	.5	-1.9	2.1	1.6
Unit labor cost	5.2	7.2	.9	.4	4.3	16.1	6.6	3.8	5.3	7.7	8.2	2.9	3.9
Unit nonlabor payments	-4.4	-3.2	9.2	2.3	-1.0	-7	21.6	8.8	5.5	3.4	( <sup>1</sup> )	2.5	2.5
Implicit price deflator	2.3	4.2	3.1	1.0	2.8	11.5	10.2	5.1	5.4	6.5	( <sup>1</sup> )	2.6	3.5

<sup>1</sup> Not available.

**33. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted**

[1967 = 100]

Item	Annual average		Quarterly indexes										
			1977		1978				1979				1980
	1978	1979	III	IV	I	II	III	IV	I	II	III	IV	I
<b>Private business sector:</b>													
Output per hour of all persons	119.3	118.3	119.6	119.0	118.5	119.1	119.8	119.9	119.0	118.4	118.0	117.9	117.6
Compensation per hour	231.5	253.2	215.6	218.8	224.5	228.8	233.9	238.7	245.1	250.6	256.0	260.6	267.6
Real compensation per hour	118.5	116.4	117.8	117.9	118.8	118.3	118.3	118.1	118.0	117.1	115.9	114.3	112.9
Unit labor cost	194.0	214.0	180.2	183.9	189.4	192.1	195.2	199.0	205.9	211.7	217.0	221.1	227.5
Unit nonlabor payments	174.3	184.4	167.9	168.5	164.8	173.9	177.0	181.2	180.8	183.6	185.5	188.2	189.8
Implicit price deflator	187.2	203.8	176.0	178.6	180.9	185.8	188.9	192.9	197.2	202.0	206.1	209.7	214.5
<b>Nonfarm business sector:</b>													
Output per hour of all persons	117.0	115.7	116.9	116.4	116.1	116.7	117.5	117.7	116.8	115.5	115.1	115.4	114.9
Compensation per hour	227.6	248.0	211.5	215.1	220.9	225.0	229.8	234.7	240.5	245.1	250.2	255.9	262.2
Real compensation per hour	116.5	114.1	115.6	115.9	116.9	116.3	116.2	116.1	115.8	114.6	113.3	112.3	110.6
Unit labor cost	194.6	214.4	181.0	184.8	190.2	192.8	195.6	199.4	206.0	212.2	217.3	221.8	228.1
Unit nonlabor payments	169.9	178.6	167.1	165.9	161.1	169.1	173.0	176.0	174.3	177.6	180.4	182.5	185.5
Implicit price deflator	186.1	202.1	176.2	178.3	180.2	184.7	187.8	191.4	195.1	200.3	204.7	208.4	213.5
<b>Nonfinancial corporations:</b>													
Output per hour of all employees	118.1	117.7	117.7	116.9	116.9	118.1	118.7	119.0	118.4	117.5	117.4	117.3	117.1
Compensation per hour	225.2	245.2	209.9	213.2	218.9	222.8	227.3	231.7	237.9	242.5	247.6	252.6	258.9
Real compensation per hour	115.3	112.8	114.7	114.9	115.8	115.2	115.0	114.6	114.6	113.3	112.1	110.8	109.2
Total unit costs	193.3	210.4	182.4	186.3	190.8	191.6	194.0	196.8	202.3	208.0	213.2	218.0	224.6
Unit labor cost	190.6	208.4	178.4	182.3	187.3	188.7	191.5	194.8	201.0	206.4	210.8	215.3	221.1
Unit nonlabor costs	201.8	216.6	194.8	198.7	201.5	200.8	201.6	203.1	206.5	213.2	220.5	226.1	235.4
Unit profits	127.2	127.8	130.9	122.2	107.1	129.2	132.7	138.7	130.3	129.2	127.5	124.0	118.6
Implicit price deflator	183.5	198.1	174.7	176.8	178.3	182.3	184.9	188.2	191.6	196.3	200.4	204.0	208.8
<b>Manufacturing:</b>													
Output per hour of all persons	128.3	129.5	128.9	128.3	126.3	127.8	129.5	129.9	128.7	129.2	130.1	129.6	128.9
Compensation per hour	230.2	251.3	214.8	218.3	223.8	227.3	232.0	237.2	243.2	248.9	253.7	259.0	265.1
Real compensation per hour	117.8	115.6	117.4	117.6	118.4	117.5	117.4	117.3	117.1	116.3	114.9	113.6	111.8
Unit labor cost	179.4	194.1	166.7	170.1	177.2	177.9	179.1	182.7	189.0	192.6	195.0	199.8	205.8

**34. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate**

[1967=100]

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	III 1978 to IV 1978	IV 1978 to I 1979	I 1979 to II 1979	II 1979 to III 1979	III 1979 to IV 1979	IV 1979 to I 1980 <sup>P</sup>	IV 1977 to IV 1978	I 1978 to I 1979	II 1978 to II 1979	III 1978 to III 1979	IV 1978 to IV 1979	I 1979 to I 1980 <sup>P</sup>
<b>Private business sector:</b>												
Output per hour of all persons	0.3	-3.0	-2.2	-1.4	-0.3	-0.7	0.8	0.4	-0.6	-1.6	-1.7	-1.2
Compensation per hour	8.5	11.1	9.3	8.8	7.4	11.2	9.1	9.2	9.5	9.4	9.2	9.2
Real compensation per hour	-9	-1	-3.1	-4.0	-5.4	-4.9	.1	-6	-1.0	-2.0	-3.2	-4.4
Unit labor cost	8.1	14.6	11.8	10.3	7.8	12.0	8.3	8.7	10.2	11.2	11.1	10.5
Unit nonlabor payments	9.9	-1.0	6.6	4.2	6.0	3.4	7.5	9.7	5.6	4.8	3.9	5.0
Implicit price deflator	8.7	9.3	10.1	8.3	7.2	9.3	8.0	9.0	8.7	9.1	8.7	8.7
<b>Nonfarm business sector:</b>												
Output per hour of all persons	.8	-3.2	-4.1	-1.4	.7	-1.4	1.1	.5	-1.0	-2.0	-2.0	-1.5
Compensation per hour	8.8	10.4	7.9	8.5	9.4	10.2	9.1	8.9	9.0	8.9	9.0	9.0
Real compensation per hour	-6	-7	-4.4	-4.3	-3.7	-5.8	.1	-9	-1.5	-2.5	-3.3	-4.5
Unit labor cost	8.0	14.0	12.5	10.1	8.6	11.8	7.9	8.3	10.1	11.1	11.3	10.7
Unit nonlabor payments	7.3	-3.9	7.8	6.6	4.6	6.8	6.1	8.2	5.0	4.3	3.7	6.5
Implicit price deflator	7.8	8.1	11.0	9.0	7.4	10.3	7.3	8.3	8.5	9.0	8.9	9.4
<b>Nonfinancial corporations:</b>												
Output per hour of all employees	1.1	-2.1	-2.9	-0.2	-0.5	0.7	1.8	1.3	-5	-1.0	-1.4	-1.1
Compensation per hour	8.1	11.0	8.0	8.6	8.3	10.4	8.7	8.7	8.9	8.9	9.0	8.8
Real compensation per hour	-1.3	-1	-4.3	-4.3	-4.6	-5.6	-2	-1.1	-1.6	-2.5	-3.3	-4.7
Total unit costs	5.9	11.7	11.8	10.2	9.3	12.7	5.6	6.1	8.6	9.9	10.8	11.0
Unit labor costs	6.9	13.4	11.2	8.8	8.9	11.1	6.8	7.3	9.4	10.1	10.6	10.0
Unit nonlabor costs	2.9	6.8	13.5	14.6	10.6	17.3	2.2	2.5	6.2	9.4	11.3	14.0
Unit profits	19.5	-22.1	-3.4	-5.3	-10.4	-16.3	13.6	21.7	0	-3.9	-10.6	-9.0
Implicit price deflator	7.3	7.6	10.2	8.6	7.3	9.8	6.4	7.5	7.7	8.4	8.4	9.0
<b>Manufacturing:</b>												
Output per hour of all persons	1.0	-3.6	1.8	2.7	-1.5	-2.3	1.2	1.9	1.2	0.4	0.2	0.1
Compensation per hour	9.3	10.4	9.8	8.0	8.6	9.8	8.7	8.6	9.5	9.3	9.2	9.0
Real compensation per hour	-2	-7	-2.7	-4.8	-4.4	-6.1	-3	-1.1	-1.1	-2.1	-3.2	-4.5
Unit labor cost	8.2	14.5	7.9	5.2	10.3	12.4	7.4	6.6	8.2	8.9	9.4	8.9

## LABOR-MANAGEMENT DATA

MAJOR COLLECTIVE BARGAINING DATA are obtained from contracts on file at the Bureau of Labor Statistics, direct contact with the parties, and from secondary sources. Additional detail is published in *Current Wage Developments*, a monthly periodical of the Bureau. Data on work stoppages are based on confidential responses to questionnaires mailed by the Bureau of Labor Statistics to parties involved in work stoppages. Stoppages initially come to the attention of the Bureau from reports of Federal and State mediation agencies, newspapers, and union and industry publications.

### Definitions

Data on wage changes apply to private nonfarm industry agreements covering 1,000 workers or more. Data on wage and benefit changes *combined* apply only to those agreements covering 5,000 workers or more. **First-year wage settlements** refer to pay changes going into effect within the first 12 months after the effective date of

the agreement. **Changes over the life of the agreement** refer to total agreed upon settlements (exclusive of potential cost-of-living escalator adjustments) expressed at an average annual rate. **Wage-rate changes** are expressed as a percent of straight-time hourly earnings, while **wage and benefit changes** are expressed as a percent of total compensation.

**Effective wage-rate adjustments** going into effect in major bargaining units measure changes actually placed into effect during the reference period, whether the result of a newly negotiated increase, a deferred increase negotiated in an earlier year, or as a result of a cost-of-living escalator adjustment. Average adjustments are affected by workers receiving no adjustment, as well as by those receiving increases or decreases.

**Work stoppages** include all known strikes or lockouts involving six workers or more and lasting a full shift or longer. Data cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.

### 35. Wage and benefit settlements in major collective bargaining units, 1975 to date

[In percent]

Sector and measure	Annual average					Quarterly average						
	1975	1976	1977	1978	1979	1978		1979				1980 <sup>P</sup>
						III	IV	I	II	III	IV	
Wage and benefit settlements, all industries:												
First-year settlements .....	11.4	8.5	9.6	8.3	9.0	7.2	6.1	2.8	10.5	9.0	8.5	8.6
Annual rate over life of contract .....	8.1	6.6	6.2	6.3	6.6	5.9	5.2	5.3	7.8	6.1	6.0	6.4
Wage rate settlements, all industries:												
First-year settlements .....	10.2	8.4	7.8	7.6	7.4	7.5	7.4	5.7	8.9	6.8	6.3	7.8
Annual rate over life of contract .....	7.8	6.4	5.8	6.4	6.0	6.4	5.9	6.6	7.2	5.1	5.3	6.3
Manufacturing:												
First-year settlements .....	9.8	8.9	8.4	8.3	6.9	8.4	9.5	8.7	9.7	6.3	5.6	7.0
Annual rate over life of contract .....	8.0	6.0	5.5	6.6	5.4	7.2	7.4	7.7	8.1	4.7	4.2	5.6
Nonmanufacturing (excluding construction):												
First-year settlements .....	11.9	8.6	8.0	8.0	7.6	7.4	6.4	3.2	8.5	9.4	7.8	9.1
Annual rate over life of contract .....	8.0	7.2	5.9	6.5	6.2	5.9	5.1	5.6	5.8	6.5	7.4	7.1
Construction:												
First-year settlements .....	8.0	6.1	6.3	6.5	8.8	7.0	8.4	9.7	8.7	9.7	7.5	9.6
Annual rate over life of contract .....	7.5	6.2	6.3	6.2	8.3	7.2	7.1	8.2	8.3	8.5	7.6	9.3

### 36. Effective wage adjustments going into effect in major collective bargaining units, 1975 to date

[In percent]

Sector and measure	Average annual changes					Average quarterly changes								
	1975	1976	1977	1978	1979	1978				1979				1980 P
						I	II	III	IV	I	II	III	IV	
Total effective wage rate adjustment, all industries .....	8.7	8.1	8.0	8.2	9.1	1.3	2.6	2.7	1.4	1.4	2.6	3.3	1.6	1.3
Change resulting from —														
Current settlement .....	2.8	3.2	3.0	2.0	3.0	.5	.6	.5	.4	.2	1.1	1.0	.5	.3
Prior settlement .....	3.7	3.2	3.2	3.7	3.0	.6	1.4	1.2	.5	.6	1.0	1.0	.4	.5
Escalator provision .....	2.2	1.6	1.7	2.4	3.1	.3	.6	1.0	.5	.6	.5	1.2	.7	.6
Manufacturing .....	8.5	8.5	8.4	8.6	9.6	1.4	2.2	2.9	1.9	1.5	2.3	3.2	2.4	1.6
Nonmanufacturing .....	8.9	7.7	7.6	7.9	8.8	1.3	2.9	2.5	1.1	1.4	2.8	3.4	1.0	1.1

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

### 37. Work stoppages, 1947 to date

Month and year	Number of stoppages		Workers involved		Days idle	
	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
1947 .....	3,693	.....	2,170	.....	34,600	.30
1948 .....	3,419	.....	1,960	.....	34,100	.28
1949 .....	3,606	.....	3,030	.....	50,500	.44
1950 .....	4,843	.....	2,410	.....	38,800	.33
1951 .....	4,737	.....	2,220	.....	22,900	.18
1952 .....	5,117	.....	3,540	.....	59,100	.48
1953 .....	5,091	.....	2,400	.....	28,300	.22
1954 .....	3,468	.....	1,530	.....	22,600	.18
1955 .....	4,320	.....	2,650	.....	28,200	.22
1956 .....	3,825	.....	1,900	.....	33,100	.24
1957 .....	3,673	.....	1,390	.....	16,500	.12
1958 .....	3,694	.....	2,060	.....	23,900	.18
1959 .....	3,708	.....	1,880	.....	69,000	.50
1960 .....	3,333	.....	1,320	.....	19,100	.14
1961 .....	3,367	.....	1,450	.....	16,300	.11
1962 .....	3,614	.....	1,230	.....	18,600	.13
1963 .....	3,362	.....	941	.....	16,100	.11
1964 .....	3,655	.....	1,640	.....	22,900	.15
1965 .....	3,963	.....	1,550	.....	23,300	.15
1966 .....	4,405	.....	1,960	.....	25,400	.15
1967 .....	4,595	.....	2,870	.....	42,100	.25
1968 .....	5,045	.....	2,649	.....	49,018	.28
1969 .....	5,700	.....	2,481	.....	42,869	.24
1970 .....	5,716	.....	3,305	.....	66,414	.37
1971 .....	5,138	.....	3,280	.....	47,589	.26
1972 .....	5,010	.....	1,714	.....	27,066	.15
1973 .....	5,353	.....	2,251	.....	27,948	.14
1974 .....	6,074	.....	2,778	.....	47,991	.24
1975 .....	5,031	.....	1,746	.....	31,237	.16
1976 .....	5,648	.....	2,420	.....	37,859	.19
1977 .....	5,506	.....	2,040	.....	35,822	.17
1978 .....	4,230	.....	1,623	.....	36,922	.17
1979: May .....	556	.....	132	.....	3,682	.19
June .....	536	.....	137	.....	2,989	.16
July .....	471	.....	168	.....	3,001	.16
August .....	463	.....	119	.....	3,152	.15
September .....	464	.....	135	.....	2,319	.13
October .....	443	.....	230	.....	2,968	.15
November .....	257	.....	91	.....	2,720	.15
December .....	134	.....	42	.....	1,976	.11
1980: January P .....	352	441	207	292	3,142	.16
February P .....	354	590	114	332	3,025	.17
March P .....	396	631	123	310	2,705	.14
April .....	425	663	116	231	2,786	.14
May .....	505	752	139	214	2,464	.13

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