



MONTHLY LABOR REVIEW

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July 1983



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July cover:

"Bridge Traffic 1883," an ink drawing appearing in *Harper's Weekly*, May 26, 1883. "It so happens," wrote Montgomery Schuyler in *Harper's* on the occasion of the opening of traffic of the great Brooklyn Bridge, "that the work which is likely to be our most durable monument and which is likely to convey some knowledge of us to the most remote posterity, is a work of bare utility; not a shrine, not a fortress, not a palace, but a bridge."

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Henry Lowenstern, Editor-in-Chief
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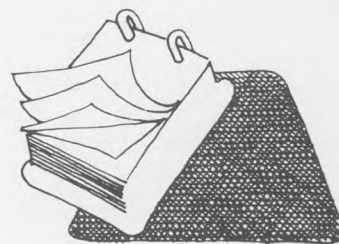
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Labor Month In Review



EMPLOYEE BENEFITS. Dental insurance is a rapidly growing area of employee benefits. About two-thirds of the workers in medium and large firms had insurance for dental expenses in 1982, up from less than half in 1979 according to surveys of employee benefits conducted by the Bureau of Labor Statistics.

The fourth annual survey provides representative data for 21 million full-time employees in a cross section of the Nation's private industries in 1982. The survey's scope generally was limited to establishments employing at least 100 or 250 workers, depending upon the industry. Here are some highlights:

Health insurance. Employees' health insurance plans virtually always paid participants' expenses for surgery, hospital-related services, and nonhospital diagnostic X-rays and laboratory exams. The vast majority of participants also were covered for private duty nursing, visits to the doctor's office, and prescription drugs and mental health care outside the hospital. Other benefits were less frequently provided: dental care covered 68 percent of the workers and extended care 62 percent; treatment for alcohol, 50 percent, and drug abuse, 37 percent; vision care, 22 percent; and hearing care 9 percent. One participant in four was covered for a second surgical opinion.

Ninety percent of health plan participants were covered for expenses either wholly or partly through major medical insurance. This benefit usually places a ceiling on coverage and requires the employee to share expenses through deductibles and coinsurance. (For an analysis of trends in major medical coverage see the article beginning on p. 11.)

Life insurance. Coverage for 64 percent of the insured was based on earnings, while 33 percent had a flat amount of coverage. About half of the production worker participants were covered by flat amounts, which seldom exceeded \$20,000 and often were \$10,000 or less. Earnings-based formulas, typically paying one or two times earnings, applied to about four-fifths of the professional-administrative and technical-clerical workers.

Retirement pension plans. Nearly seven-eighths of the workers were covered by retirement pension plans. Sixty-seven percent of the participants have plans with payment formulas based on earnings, while 30 percent would receive benefits based on a specified dollar amount for each year of service. The most common earnings formula used the final years of employment (terminal earnings formula) in the calculations.

Forty-two percent of all private pension plan participants could not retire with full benefits until age 65; but, by then, there was usually no length of service requirement. Thirty-one percent could retire from age 60 to 64, often with a requirement of 10 or 15 years of service; and 5 percent could retire from

age 55 to 59, usually after 20 or 30 years. However, 13 percent of all participants could retire at any age if they had 30 years of service. The remaining 8 percent had plans that require a specific sum of age and service for normal retirement.

Paid time off. Noncumulative sick leave plans that were not coordinated with sickness and accident insurance on the average allowed 26.4 days off per year with full pay after 1 year of service, 57.0 days after 10 years, and 71.7 days after 20 years. Plans that are similar, except that they allow year-to-year carry-over of unused sick leave, averaged 9.3 days after 1 year, 12.3 days after 10 years, and 14.8 days after 20 years. When days off are specified per disability, the numbers are 46.6 days after 1 year, 87.2 days after 10 years, and 129.0 days after 20 years.

Among the other types of time off with pay discussed by the survey are: paid holidays and vacations, personal leave, paid lunch periods, and paid rest time.

Detailed tabulations of the benefit provisions studied will be published in a bulletin, *Employee Benefits in Medium and Large Firms, 1982*. □

Norwood begins second term

Secretary of Labor Raymond J. Donovan last month administered the oath of office to Janet L. Norwood for a new term as Commissioner of Labor Statistics. The 4-year term runs to June 13, 1987. Norwood is the 10th Commissioner in the history of the Bureau which has existed since June 27, 1884, when President Chester Arthur signed the bill creating the agency. The Bureau's first budget was \$25,000.

Japan's low unemployment: economic miracle or statistical artifact?

Japanese workers statistically move from employment to out of the labor force, bypassing unemployment; their rates are still low even when the data are adjusted using U.S. concepts of unemployment

KOJI TAIRA

If official statistics on employment and unemployment are any guide to the degree of labor market efficiency, the performance of the Japanese labor market is almost miraculous.

In the late 1960's, the official unemployment rate averaged 1.1 percent. Even after the challenge of the OPEC oil embargo in 1973 which halved Japan's economic growth rate and brought about drastic structural changes, the unemployment rate has rarely risen above 2.5 percent. However, some people emphasize the *doubling* of the unemployment rate within a few years after 1973. In fact, during much of the 1950's when no one thought that Japan was in full employment, the official unemployment rate was similar to the rate after the OPEC embargo, slightly above 2 percent.

Today, people readily discount the problem of unemployment: thanks to the rise in individual incomes and the progress in social insurances, the same rate of unemployment today means much less hardship than before. But if the rate of unemployment indicates the degree to which an economy's labor force is underutilized, anyone who remembers the poor state of labor force underutilization during the 1950's would consider today's similar unemployment rate alarming. The mystery of Japan's unemployment sta-

tistics is that they do not seem to reflect this alarming situation.

In this article, we propose to shed some light on this mystery by examining the ways in which unemployment is defined and counted in Japan. Also included are brief discussions on male and female unemployment, unemployment by age, and labor redundancy.

In recent years, the Japanese have become increasingly aware of possible inadequacies in the measurement techniques that have produced the low, official unemployment rate. The monthly conventional labor force survey, although modeled after that of the United States, has acquired characteristics that seem to understate the extent of unemployment. The Japanese survey techniques are simpler than those of the United States and are almost deliberately blunted on the edges of questions that should be more direct for eliciting answers which serve as the basis for unemployment statistics. Workers "statistically" move between employment and out of the labor force, bypassing unemployment. Several recent studies in Japan have concluded that the statistically hidden unemployment of Japan would double the "official" unemployment rate to more than 4 percent.¹

The Japanese Government responded to the demand for more reliable statistics on employment and unemployment by initiating a new survey called the "Special Survey of

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the Labor Force Survey" (referred to as the Special Labor Force Survey hereafter), undertaken annually at the end of March since 1977.² Detailed questions in this survey yield information which can be used for recalculating Japan's unemployment rates by internationally comparable concepts. Unemployed workers may be found among the employed and the persons not in the labor force. At the same time, some of the unemployed may have to be excluded as "non-unemployed" (a concept we shall explore). The American labor force criteria and methods are used in conjunction with data from the Special Labor Force Survey. The conceptual gaps between the United States and Japan are discussed briefly by explaining attitudinal or cultural differences between the two countries. This experiment can be conducted only for 1977-80, because beginning in 1981, published survey data no longer contained the necessary information.

Distinct labor force concepts

Table 1 presents selected data from the Special Labor Force Survey. As will be seen in the following discussion, a few of the groups in the "employed" or "out of the labor force" categories should be included in the "unemployed" category, and some of the "unemployed" groups should be moved "out of the labor force."

Layoffs. Workers on layoff and self-employed business people who have temporarily closed down for economic reasons are considered employed and are categorized as "with a job but not at work." Although their number is very small, they represent the tip of a gigantic sociocultural iceberg. That these workers are not included in the unemployed is grounded in the Japanese philosophy of unemployment. Employment to the Japanese is a relationship between employer and employee; so long as that relationship is maintained, even though the employee does not report for work, he or she is considered employed. This concept is informal, not contractual. But sociologically, the maintenance of the employment relationship is so important to the Japanese, even when there is nothing to do but to wait at home, that the first public employment policy in the wake of the 1973 recession was that of subsidizing hard-pressed employers so they could keep paying their laid-off employees. This policy made it easier for declining or cyclically sensitive industries to unload redundant workers (those who are no longer needed because of a decrease in the demand for labor—defined more rigorously later) with a minimum of socially undesirable side effects, that is, avoiding the impression that they were throwing unwanted workers out on the street—a traditional image of unemployment much feared and hated everywhere. Furthermore, by calling the otherwise unemployed workers employed, statistics help prevent the status deprivation of the jobless. It is also in conformity with this line of social philosophy that some of the jobless who would be included in the unemployed in

other countries are statistically kept out of the labor force in Japan.

Family workers. In the conventional labor force statistics, unpaid family workers are counted as employed if they worked 1 hour or more during the survey week. Fortunately, in the Special Labor Force Survey, information is available on the family workers who worked fewer than 15 hours a week. Many of these under-employed family workers may be looking for work, and can conceptually be reclassified as unemployed. We excluded them from the employed category in the adjustment, and because of the lack of relevant information we did not attempt to reclassify them.

Workers with jobs to report to. Those who have jobs to report to at a later date are not in the labor force according to the conventional labor force survey. These include an interesting group: recent graduates. Japan's academic year ends in March, perhaps causing the total of persons in this category during March to be atypically high in contrast to other months. As table 1 shows, this group makes up roughly two-thirds of the total in March. By March 31, all students (barring a small number of failures) have earned their diplomas and have had their proper graduation ceremonies. Long before graduation, they were interviewing for jobs. During this time, the prospective graduates secured informal (and conditional) offers (*naitei*) from specified employers on jobs to report to after graduation. As a consequence, they are statistically "unemployed" on March 31 for our adjustment. They are neither keeping house nor going to school. They are interested in work and preparing for it, but not working yet. In the United States, future jobs are not so definite because there is always the possibility that those who think they have a job will find, when the time comes, that employers have changed their minds. It therefore seems justified to treat a future job as a present equivalent of joblessness. In Japan, informal promises may be much firmer than those in the United States, although withdrawn offers are not unknown.³ Especially after the OPEC embargo, there was a high risk that the promises could not be kept. In any case, the graduates with jobs to report to in the future are technically no different from the jobless who are waiting for the results of past jobseeking activities. However, Japan treats the former as not in the labor force, and the latter as unemployed.

Availability for work. Current availability for work distinguishes jobseekers who are unemployed from jobseekers who are not included in the unemployed. In the conventional labor force survey of Japan, availability was assumed for jobseekers, but no test was made for validity of this assumption. However, the Special Labor Force Survey makes the issue explicit. After "Do you want work?" is asked of those who were neither working nor looking for work during the survey week (and therefore are not in the conventional

Table 1. Selected data from the Japanese labor force survey, 1977-80

[Numbers in thousands]

Category	1977	1978	1979	1980
Total working-age population	85,870	86,790	87,790	88,480
Total labor force	53,430	54,240	54,770	55,370
Employed	52,160	52,830	53,420	54,130
With a job, but not at work	1,340	1,760	1,390	940
Layoff or closed down	100	140	140	(2)
For less than 1 month	60	60	60	(2)
For more than 1 month	40	80	80	(2)
Family workers ¹	400	580	490	760
Unemployed	1,270	1,410	1,350	1,240
Non-unemployed	330	420	370	310
Total not in labor force	32,190	32,250	32,800	33,110
With a job to report to	830	1,070	1,020	860
Within 1 month	740	880	880	740
(Recent graduates)	(2)	(520)	(560)	(550)
After 1 month	100	190	150	120
Job sought in March	1,060	1,080	1,090	960
Currently available	510	560	490	430
Not currently available	550	520	600	530
Did not job search in March	6,520	7,910	8,260	1,470
Discouraged ³	1,850	2,220	2,220	1,880
Currently available	490	610	610	560

¹Family workers working less than 15 hours a week.

²Not available.

³Those not in the labor force who do not look for work because they do not think they can find work.

NOTE: All numbers are rounded to the nearest 10,000; rounding errors exist at this level.

SOURCE: The Prime Minister's Office, Bureau of Statistics, *Rodoryoku chōsa tokubetsu chōsa hōkoku* (Report on the Special Survey of the Labour Force Survey), 1977-80.

labor force), the survey asks, "Do you intend to work immediately if a job is found?" One of three answers should be chosen: "immediately," "not immediately," or "do not know." Answers can be cross-classified with answers to the next question: "Why are you not seeking work now (meaning the reference week) despite your intention to work?" After this, another important question is asked: "For the purpose of finding work, have you, during March, visited the public employment service, applied for jobs somewhere, asked your friends to find work for you, or done other things of similar nature?" Those who answered this question "yes" and who also were currently (immediately) available for work (as the result of a previous question) can now be considered "unemployed," although they are not so considered in the conventional labor force survey. This leaves out those who looked for work during March but who did not say that they were immediately available. Why they should not be considered unemployed is a question of priority in the structure of judgment: that is, which is more important or overriding, jobseeking or current availability?⁴

In the U.S. labor force concepts, those who meet the criteria for being considered unemployed but who are not currently available for work because of "temporary illness" are still unemployed. In the Japanese Special Labor Force Survey, "temporary illness" is introduced at a different juncture. In the conventional labor force survey, the temporarily ill are considered "out of the labor force" because

they were not looking for work. In the Special Labor Force Survey, temporary illness is one of the answers to the question "why are you not looking for work . . . ?" Temporary illness is a legitimate reason for not looking for work during the reference week and, therefore, technically staying out of the labor force. Thus, there are those who looked for work in March, but not during the reference week because of temporary illness. This means that those who looked for work during March and are currently available for work (and so are considered "unemployed") may include some of those who were unable to look for work during the reference week because of temporary illness. Thus, in Japan, temporary illness is not an exception to the current availability rule. The Japanese cannot stand the thought that a person should suffer double misfortunes: unemployment and illness. By classifying the temporarily ill as not in the labor force, the Japanese spare them the shame of having to be designated as unemployed. The logic is that "unemployment" should be the last description of joblessness.

Discouraged workers. Persons not in the labor force who do not look for work believing that they cannot find work because of discouraging economic conditions are "discouraged" workers. According to table 1, there are large numbers of them, easily surpassing the conventional ranks of unemployed. But not all of them are "currently available" for work. In fact, most do not seem to be seriously interested in working. If they do not intend to work, it seems clear that they have decided either to withdraw from, or not participate in the labor force.

The Special Labor Force Survey has generated information on attitude toward work that indicates different types and degrees of interest in work. These attitudinal dimensions require expertise in Japanese social psychology for proper ordering and interpretation. For example, the "yes" answer to "do you want work?" can be either "yes, any kind of work" or "yes, if the terms are right." When these different yeses are cross-tabulated with information on "current (immediate) availability for work," it is a good question whether the reservation implied in "yes, if terms are right" may not overshadow "current availability" and actually turn it into "not currently available." Here one suffers from an *embarras de richesses* of information. Why people are discouraged from looking for work is also related to several situations such as local labor markets, seasons, business cycles, and so forth. It is again a good question whether a person who does not look for work believing that there is no job in the local labor market is just as "discouraged" as a person who does not look for work believing that the season is bad for jobseeking. These different perceptions and attitudes await further analysis.

Adjusted unemployment

The conventional Japanese philosophy of employment is disregarded for this experiment and the American criteria

are used to see how the Japanese unemployment rate is affected. In the adjustment, only the clearest cases are included in the unemployed: those laid off; those self-employed who have temporarily closed down; those having jobs to report to within 1 month; and, most importantly, those who looked for work in March (including recent graduates who are said to have obtained informal job offers⁵), but not during the reference week, and who were currently (immediately) available for work. These workers nearly double the official unemployment rate.

The adjusted unemployment in table 2 is the closest approximation one can make to the coverage of the unemployed used in the United States. Thus, from the standpoint of comparability in concepts and coverage, the results of this adjustment may be compared with the unemployment rates of the United States (noted at the bottom of table 2). The U.S. rates are still higher than the adjusted Japanese rates, but the difference is much smaller than that between the U.S. rates and the conventional Japanese rates.

A closer look at jobseekers

So far the discussion has focused on people who are not considered unemployed in Japan, but might be so considered by American criteria. But are those considered unemployed in Japan also considered unemployed in the United States? Before the publication of data from the Special Labor Force Survey, it was assumed that the unemployed in Japanese official statistics were just as unemployed as in American statistics and all that was needed to make the Japanese official unemployment statistics comparable to those in the United States was to add to them the groups in the categories "employed" or "not in the labor force" who would have been unemployed by American criteria. But, according to Japan's Labor Ministry, Japanese unemployment includes those who would not be considered unemployed by U.S. criteria.⁶ This is an interesting byproduct of the debate on the reliability of the conventional unemployment figures. We now recount the unemployed taking this view into account.

The questionnaire used for the Special Labor Force Survey asks "Did you do any work at all during the last week in March?" This divides the respondents broadly into those who worked, even an hour, and those who did not work at all during the survey week. The latter responses are then classified into (1) temporarily absent from work, (2) seeking a job, (3) keeping house or going to school, and (4) other. Those seeking a job are persons currently available for work and who are making specific efforts to find a job or waiting for the results of past jobseeking activity. In the conventional labor force survey, those who marked "seeking a job" are considered "unemployed." But the Special Labor Force Survey turns up an unusual group of jobseekers: persons who are classified as "jobseekers" under this definition, but who obviously did not seek a job during the survey week because they were waiting for the results of past jobseeking

Table 2. The Japanese labor force adjusted to approximate U.S. concepts of unemployment, 1977-80

[Numbers in thousands]

Category	1977	1978	1979	1980
Labor force, adjusted	53,950	54,680	55,280	55,490
Employed (from table 1)	52,160	52,830	53,420	54,130
Layoffs, self employed but closed down excluded	100	140	140	(¹)
Family workers excluded ²	400	580	490	760
Employed, adjusted	51,660	52,110	52,790	53,390
Unemployed (from table 1)	1,270	1,410	1,350	1,240
Non-unemployed excluded	330	420	370	310
Layoffs, employed but closed down	100	140	140	(¹)
With a job to report to within 1 month	740	880	880	740
Job search in March and currently available for work	510	560	490	430
Unemployed, adjusted	2,290	2,570	2,490	2,100
Unemployment rates (in percent)				
Japan:				
Conventional	2.38	2.60	2.46	2.24
Adjustment	4.24	4.70	4.50	3.79
United States	7.1	6.1	5.8	7.1

¹Not available.

²Family workers working fewer than 15 hours a week.

SOURCE: The Prime Minister's Office, Bureau of Statistics, *Rodoryoku chosa tokubetsu chōsa hōkoku* (Report on the Special Survey of the Survey), 1977-80.

activities undertaken more than a month earlier.⁷

In the Special Labor Force Survey, "jobseekers" are asked a number of questions about their job-search activities. The first is "what kind of methods are you taking for seeking a job?" Six answers are provided and the respondent is asked to circle any number of them and to circle the principal method twice. A subquestion asks "when did you do the last request or application?" (referring to the employment exchange service, the prospective employer's personnel department, or the school placement service). Three choices are offered: (1) during the last week of March (survey week), (2) during March, and (3) during February or earlier. For 1980, for example, more than 40 percent of the jobseekers chose "February or earlier." The Labor Ministry points out that these jobseekers would be considered "out of the labor force" in other countries and that they should be excluded from Japan's unemployment in the interest of better international comparability.⁸ It assumes that those who made their last request or application in February or earlier did not look for work during March. However, they could still be actively seeking work during the survey week or during March by "collecting (want) ads," "consulting with acquaintances," "preparing to start a business" (which cannot be neglected in Japan, where self-employment is fairly extensive), or in "other" ways.

The waiting game. The cross-tabulation of answers to the question on jobseeking methods and answers to the question on the timing of some of those methods, such as making a request or application, must be interpreted carefully. For example, if those who answered the question on jobseeking methods by saying that they applied for a job at the Public Employment Office also answered that they applied in Feb-

ruary or earlier, it may be legitimate to suspect (provided no other answers were given to the multiple choice question on jobseeking methods) that they may not have done anything during March except wait for the results. Although they were not looking for work during March or the survey week, they considered themselves as jobseekers, because the Japanese definition of jobseeking includes "waiting" without seeking. To say that one is doing something without actually doing it sounds inconsistent. But the fact that one can actually say so by defining "doing" as inclusive of "not doing" is one of the flexible properties of the Japanese language. While jobseeking is a prime test of unemployment, the U.S. labor force survey does count as unemployed some people who are not actively seeking a job. They are: "persons waiting to start a new job within 30 days, and workers waiting to be recalled from layoff."⁹ The first group of persons also exists in the Japanese labor force statistics as persons "not in the labor force." The second group would probably be considered as persons "with a job but not at work" and thus, included in the employed category.

In contrast to the American usage, the Japanese use of "waiting" occurs with respect to the results of past jobseeking activities. Why do some jobless persons perceive themselves as in the state of waiting? Are they waiting to be notified by their agencies or prospective employers? If so, do they have valid reasons to expect such notifications? Did they perhaps form favorable impressions about the chances for landing a job at the time of request or application? Waiting for notification on jobs in this way, is very close to waiting to be called in for work and, therefore, is very similar to the American concept of waiting as an exception to the jobseeking rule for unemployment.

How long should one wait in order to be counted as unemployed rather than "out of the labor force?" In the case of a job to report to, the waiting period is 30 days in the United States, and there is no specific limitation on the waiting period for a recall from layoff. Likewise, the Japanese idea of open-ended waiting for the results of jobseeking may be defensible. In Japan, in any area of life, more generous time is customarily allowed for responses to a request than in other countries. From this point of view, the Labor Ministry's unemployment suggestion seems unusually strict because it excludes all the jobless who were waiting for results of their last request or application made in February or earlier.

The structure and wording of the Japanese labor force questionnaire are unfortunately too ambiguous to permit a clearcut adjustment with respect to genuine waiting for the results of past jobseeking. The Labor Ministry restricts waiting during the survey week (the last week of March) to the results of jobseeking between March 1 and the survey week. But if the reference period for jobseeking is expanded to 1 month from the conventional 1 week, anyone who looked for work during March, regardless of whether they were waiting for the results of those activities during the last week

of March, would be categorized as unemployed. Thus, waiting becomes an unnecessary concept in this case. It is also a good question whether the expansion of the reference period for jobseeking to 1 month inevitably nullifies the need for the concept of waiting for the results of still earlier jobseeking activities (for example, waiting during March for the results of jobseeking undertaken in February or earlier). The use of waiting in the American labor force concepts seems to suggest that there may also be room for it in Japanese measurement of the labor force.

The "non-unemployed." The cross-tabulations of the answers to the question of jobseeking methods and the answers to the question on the last request or application suggest some way out of the waiting issue. Table 3 presents these cross-tabulations with special reference to the "February or earlier" answers. The first three items refer to persons whose principal methods of jobseeking involved some kind of request or application and who made their last request or application in February or earlier. From this, one may doubt that these persons were seeking a job seriously during March. The original data suggest that some of those who used "application at the Public Employment Office" as their principal jobseeking method also resorted to secondary methods which did not involve requests or applications. This blunts the factoring-out process, but we disregard that for now and assume that they fail the 30-day jobseeking test. Thus, they can be excluded from unemployed as "non-unemployed." By contrast, jobseekers who made their last request or application in February or earlier and whose principal jobsearch methods during the survey week were studying want ads or checking with friends, in no way discredit their status as jobseekers. Therefore, they are counted as unemployed. By similar reasoning, those preparing to start a business and all other jobseekers are also counted as unemployed.

Table 3. Japanese unemployed who made their last request or application for a job in February or earlier, 1977-80

[Numbers in thousands]				
Category	1977	1978	1979	1980
Total	520	640	600	540
Principal jobseeking methods:				
Application at public employment office	180	230	210	150
Application at prospective employers	10	50	40	40
Request with schools or acquaintances	140	140	120	120
Studying want ads or consulting with acquaintances	140	160	190	170
Preparing to start a business	10	30	20	10
Other	40	30	1	30
Non-unemployed ²	330	420	370	310

¹Not available.

²Non-unemployed = jobseekers who left applications at Public Employment Office + applications at prospective employers + requests with schools or acquaintances.

SOURCE: The Special Labor Force Survey.

The women's problem

The conventional unemployment rates tend to be lower for women than for men, but this tendency is reversed after adjustment. For example, in 1977, the unemployment rates for men were 2.44 percent and for women, 2.26 percent. When adjusted, the unemployment rates rose to 2.95 percent for men and 6.25 percent for women. The lower reported unemployment rates for Japanese women appear rather peculiar in view of the widely observed fact that women usually suffer from higher unemployment rates than men (see U.S. figures in table 4). However, the expansion of the job-search period to 1 month and other adjustments made Japanese female unemployment rates higher than those of males. This may suggest that the labor market disadvantages of women are at least similar in nature among Japan and other countries. The failure of the conventional unemployment rates to reflect this universal tendency is another reason to suspect the deficiencies of the conventional labor force survey.

Quantitatively, the male-to-female differentials in unemployment rates are much greater in Japan than in the United States. Generally, this would be considered substantial evidence of labor market discrimination against women, though in Japan there is no active concept of discrimination in this sense—men and women simply accept their different roles in society and make no fuss about it. Why women's unemployment rates tend to be lower than men's in the official data owes much to the structure of questions in the survey questionnaire.¹⁰

A triennial employment survey

Although the unemployment rate based on the labor force survey is the one that Japan presents to the rest of the world, very few Japanese take the labor force survey seriously. It is viewed as based on alien concepts of work that they find hard to understand. Thus, the Japanese government conducts another employment survey every 3 years based on more popular concepts; that is, the Employment Status Survey. In this survey, a person 15 years or older is either "usually employed" (for pay or on own account) or "usually not-employed." Although no one can be "usually unemployed" (because they would sooner or later drop out of the labor force), the persons "usually not-employed" are

questioned about their interest in employment. Thus, they can be classified into those interested in work and those not interested. The interested persons are then asked whether they are looking (or have looked) for work, and if they are immediately available for work if work is found. Persons "usually not-employed" who are interested in work, looking for work, and can start working if work is found may be considered unemployed. Hence, this survey also minimizes use of the word "unemployed."

Naohiro Yashiro estimates "unemployment rates" for men and women from the Employment Status Survey of 1977.¹¹ He first identifies persons "usually not employed" who are interested in work and have looked or are looking for work as a percentage of the sum of these persons and those "usually employed." This yields 3.2 percent unemployed for men and 12.9 percent for women. But when the current availability condition is added, the male unemployment rate comes down to 2.0 percent and the female, 6.34 percent. The male unemployment rate from the Employment Status Survey is quite similar to that from the conventional labor force survey, but the female unemployment rate here is much larger.

Although the "usual unemployment rate" is not extraordinarily high, it suggests that Japan's "true" unemployment may be higher than the "official" rate announced to the rest of the world on the basis of the conventional labor force survey. It also indicates that Japan's unemployment is largely the women's problem. In Japan, however, "equal employment opportunity" has not yet arrived on the agenda for serious discussion.¹² It is also commonly admitted by men and women alike that Japanese women, if discriminated against in the labor market, enjoy compensating advantages in other areas of life, for example, the family and household where the wife, or mother is said to be an unchallenged ruler for whom the husband, or father is little more than a "working bee" (*hataraki bachi*, which can also be humorously rendered into "punishment at hard labor").

Unemployment among the young and old

Age is another personal factor that produces labor market disadvantages. In Japan, there is a greater willingness to admit the existence of age discrimination, which is partially indicated by higher unemployment rates among older persons. Table 5 shows male unemployment rates by age groups. These are "official" or conventional rates. As our recounting previously showed, the adjusted unemployment figures for men are not greatly different from the conventional ones. For example, in table 4, men's unemployment rose from conventional 2.44 percent to adjusted 2.95 percent for 1977, while women's rates rose markedly from conventional 2.26 percent to adjusted 6.25 percent. The modest difference between the male conventional and adjusted unemployment rates enables us to make use of the readily available "official" disaggregation of men's unemployment by age as shown in table 5, reasonably confident that the broad char-

Table 4. Japanese and American unemployment rates for men and women, 1977-80

Category	1977		1978		1979		1980	
	Men	Women	Men	Women	Men	Women	Men	Women
Japan:								
Conventional	2.44	2.26	2.74	2.44	2.50	2.40	2.19	2.32
Adjusted	2.95	6.25	3.57	6.58	3.26	8.86	2.75	5.20
United States	6.3	8.2	5.3	7.2	5.1	6.8	6.9	7.4

SOURCE: The Special Labor Force Survey.

Table 5. Unemployment rates among Japanese men by age, 1976-1980

[In percent]

Age	1976	1977	1978	1979	1980
Average	2.2	2.1	2.4	2.2	2.0
15-19	5.5	5.6	6.8	5.4	5.5
20-24	3.2	3.6	3.8	3.2	3.6
25-29	2.3	2.1	2.4	2.4	2.0
30-34	1.5	1.5	1.7	1.6	1.7
35-39	1.5	1.4	1.6	1.3	1.3
40-44	1.5	1.3	1.7	1.2	1.0
45-49	1.5	1.3	1.6	1.3	1.3
50-54	1.8	1.6	1.9	1.8	1.5
55-59	3.3	3.3	3.5	3.7	3.1
60-64	4.4	4.6	5.3	5.4	4.6
65 and over	2.4	2.2	2.3	2.3	2.2

SOURCE: Ministry of Labor, *Rodo tokei yoran [A Handbook of Labor Statistics]*, 1981, pp. 34-35.

acteristics would not change much after adjustment.

It is generally observed everywhere that the unemployment rates among young workers are higher than the national average. Japan should be an exception if the much touted lifetime employment hypothesis were true; young men would become employed immediately after graduation, giving them no time to be unemployed. However, table 5 implies that young men are vulnerable to fairly high unemployment upon entering the labor force or in the course of job changes. Japanese men begin to settle down with long-term jobs at around age 30 and stay with them until their 50's. After age 50, unemployment rises to rates far above the national average. The middle-age bulge in unemployment rates is widely regarded as extraordinary by international standards.¹³ It reflects the unique Japanese practice of *teinen*, which means termination of employment for reasons of age. The prevailing age was 55 until recently. The proportion of firms using 60 as *teinen* has since increased. At the same time, firms are increasingly encouraging their employees to retire (quit) early. Thus, the formal extension obviously encourages management to find ways to bypass the formal rules. The net effect is that Japan fails to offer job security to workers age 55 years or older. Although the unemployment rates among men below 30 are caused in large part by their attempts to enter the labor force and their voluntary job changes, the unemployment of workers 50 and over is due more to involuntary job terminations and subsequent difficulties in finding new jobs.

Age also affects earnings inversely. Men's regular base pay reaches its peak, on average, by age 45 to 49 and decreases to about 70 percent of the peak by 60 to 64 years, according to wage statistics for 1979.¹⁴ It appears that sharper decreases in wages are needed to prevent middle-aged unemployment from rising because it is during this life stage that unemployment among men is seen to rise. Also, if continued regular employment until age 65 is desired, earlier pay raises (before age 45) would have to be moderated to prevent wages from decreasing in later years (45-65). The

present pay system, linking increases with the length of service, (the so-called *nenko* wage system) was originally fashioned with the *teinen* of 55 in mind. Therefore, employers have for some time argued that raising this age limit would require a new (lower) earnings profile that will continue to increase over the longer employment period. This argument implies that men below age 50 would be worse off under an extended retirement age system than at present. Thus, a conflict of interest between generations is a powerful restraint on revising the retirement system.

Absorption of labor redundancy

In addition to the officially reported unemployment, the possibility of labor redundancies in Japanese firms was also a popular topic in the late 1970's.¹⁵ Labor redundancy is defined as the excess of actual employment over optimal employment which is estimated from the level of output and labor productivity. Various formulae with different degrees of sophistication are employed for the purpose. The estimated full-time equivalent redundancies for 1977 as percentages of the labor force ranged from a low of 4.4 percent to a high of 7.2 percent. Although the "official" unemployment rate for 1977 was slightly over 2 percent (our adjusted rate was somewhat above 4 percent), the Japanese economy was obviously holding a surprising amount of excess labor at the expense of productivity, but workers' apparent willingness to forgo wage increases or even to take wage cuts helped employers reduce the costs of labor redundancies.

To summarize, the underutilization of Japan's labor force after 1973 has been extensive. One might roundly put it at 10 percent or so for the late 1970's. But this was estimated at 6 percent for redundant employment and 4 percent for adjusted unemployment. The deficiencies of the conventional labor force survey also have helped soften the shock of discovery of the worsened labor market conditions by understating the extent of open unemployment. If the "true" unemployment rates can be said to be double the official rates, Japan's unemployment of the late 1970's was roughly comparable to Western Europe's, though somewhat lower than America's. Even so, the fact that the excess labor amounting to 10 percent of the labor force produced an open unemployment rate of 4 percent is an interesting economic phenomenon. As demonstrated elsewhere, large enterprises unloaded their redundant labor rather efficiently, and labor absorption occurred in smaller firms and in the service sector. The factor that made this possible was the collapse of worker militancy and the moderation of real wage increases. There even was a decrease in average real wages in 1980. Workers were cowed by a great fear of joblessness, it seems.¹⁶ In other words, high open unemployment was avoided by the willingness of chastened workers to take any jobs for any wages. All this of course indicates that Japanese labor markets worked with remarkable efficiency. □

—FOOTNOTES—

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¹ See *Special Research Report No. 22* (Mitsubishi Bank Research Institute, August 1981); Akira Ono, *Nihon no rodo shijo [Japanese Labor Markets]* (Tokyo, Tokyo Keizai Shinposha, 1981), Chapter 2. The Mitsubishi report generated a political minicrisis in the summer of 1981. The Cabinet Council of Ministers of State ordered a study of government statistics to dispel suspicions that the government was deceiving the nation by faulty statistics. In its wake, a spate of articles by government officials appeared in journals and newspapers in defense of the existing government statistics. See also Eiji Shiraishi, "International Comparison in Unemployment Conception," *Monthly Labour Statistics and Research Bulletin*, March 1982, pp. 13–20.

² Prime Minister's Office, Bureau of Statistics, *Rōdōryoku chōsa tokubetsu chōsa hōkoku [Report on the Special Survey of the Labour Force Survey]*, March 1977 onward.

³ There have even been litigations concerning the employer action revoking the "informal" offer of employment. See "Informal Offer of Employment," *Japan Labor Bulletin*, January 1983, pp. 5–8.

⁴ On this point, see *How the Government Measures Unemployment*, Report 418 (Washington, Bureau of Labor Statistics, 1973), pp. 6–7.

⁵ The Special Labor Force Survey does not describe how firm these informal offers are or how new graduates with informal offers differ from other workers with jobs to report to. At least, their respective numbers are known. Better information may enable us to differentiate them in terms of labor force status. At the present stage of information, we are satisfied with treating them as the Special Labor Force Survey does under the common heading of workers with jobs to report to.

⁶ Shiraishi, "International Comparison in Unemployment Conception."

⁷ For an earlier discussion of this issue, see Ryohei Magota and Hideshi Honda, *Koyō to chingin [Employment and Wages]* (Tokyo, Ichiryusha, 1974), Chapter 3.

⁸ Shiraishi, "International Comparison."

⁹ U.S. Bureau of Labor Statistics, *How the Government Measures Unemployment*, p. 4.

¹⁰ Yoko Sano, *Chingin to koyō no keizaigaku [Economics of Wages and Employment]* (Tokyo, Chuo Keizaisha, 1981), Chapter 5.

¹¹ Naohiro Yashiro, "Wagakuni ni okeru shitsugyō gainen no saikentō" [A Reexamination of Our Country's Concept of Unemployment], *Monthly Journal of the Japan Institute of Labour*, February 1981, pp. 15–25.

¹² Eiko Shinotsuka laments the absence of real debate on this issue in her *Nihon no joshi rōdō [Japanese Women Workers]* (Tokyo, Tōyō Keizai Shinposha, 1982), p. 72.

¹³ Haruo Shimada, "The Japanese Labor Market After the Oil Crisis: A Factual Report" (I and II), *Keio Economic Studies*, Vol. 14, Nos. 1, 2.

¹⁴ See, for example, Ministry of Labor, *Rōdō tōkei yōran [A Handbook of Labor Statistics]*, 1981, p. 104.

¹⁵ Several well-known banks and research institutes announced their estimates of labor redundancies in the Japanese economy. A few examples were picked up by the Ministry of Labor and published in its *Labor White Paper* (1978).

¹⁶ What is somewhat puzzling is why workers, if only for purposes of strategic maneuvers, did not seize upon the government's insistence on the good performances of the Japanese economy based in part on the low "official" unemployment rates and mount a strong offensive for wage increases appropriate to the advertised good economic conditions. One answer to this question is that workers are sympathetic toward the government's efforts for putting up a good "face" for the rest of the world, despite the really bad conditions at home.

Blue Pencil Awards

The *Monthly Labor Review's* special issue on earnings (April 1982) won first place among one-color technical magazines in the 1982 Blue Pencil Publications Contest of the National Association of Government Communicators. The Association's judges called the *Review* a "handsome publication that invites the reader to browse . . . offers the researcher excellent research sources . . . gives the impression that it is designed to inform (rather than impress)."

Another Bureau of Labor Statistics publication, the *Occupational Outlook Quarterly*, Spring 1982, won second place among two- and three-color technical magazines.

More than 400 publications of Federal, State, and local government organizations were entered in the contest.

Trends in major medical coverage during a period of rising costs

Major medical benefits improved markedly in a cohort of employee health insurance plans during 1974–81; coinsurance rates remained largely unchanged, but more plans included a ceiling on charges to employees while providing higher levels of coverage

DOUGLAS HEDGER AND DONALD SCHMITT

Since their inception in 1949, major medical insurance plans have grown rapidly in popularity, and now cover more than 150 million individuals. These plans offer protection against the large expenses resulting from a major injury or serious illness, paying a substantial portion of hospital and physicians' charges after a deductible amount has been paid by the insured person. While the coinsurance rate applicable to the insured has remained relatively constant in recent years, major medical protection has been enhanced by liberalization of other policy provisions, such as increases in maximum benefits and incorporation of curbs on expenses borne by insured individuals.

Rapid increases in the cost of medical care probably have provided the main impetus for adjustments in major medical coverage. Between 1974 and 1981, yearly per capita national health expenditures more than doubled from \$535 to \$1,225.¹ During this period, the medical care component of the Consumer Price Index for Urban Wage Earners and Clerical Workers increased at an average 10.1-percent annual rate.² Increases in health care expenditures also resulted from costly new treatments generated by advances in medical technology. Improvements in health insurance provi-

sions also mirrored a general liberalization of supplementary benefits as parts of employee compensation during this period. Finally, more attractive major medical benefits offered by insurance carriers may stem from the keen competition which has occurred among individual insurance companies and between the traditional insurance industry and alternative approaches to health care financing, such as self-funding by employers and Health Maintenance Organizations.³

This article focuses on changes in major medical coverage over the 1974–81 period among a group of 166 employee health insurance plans either fully or partially paid for by employers. These plans covered approximately 5 million workers in 1979, the last year for which relatively complete employment counts are available. They comprise all plans included in both of two Bureau of Labor Statistics sample surveys: (1) a 1974 study of employment-related health plans with at least 26 participants, whose administrators reported to the U.S. Department of Labor, as required by the Welfare and Pension Plans Disclosure Act of 1958, as amended; and (2) a 1981 study of the incidence and characteristics of employee benefit plans in medium and large firms.⁴

The health insurance plans available for this analysis are mainly those of large employers; 87 percent of the plans covered 5,000 workers or more in 1979, with 31 percent covering at least 25,000 workers. They obviously are not a

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representative sample of all health insurance plans; however, because they cover a substantial number of workers, both union and nonunion, they do offer insight into trends in major medical coverage during the 1974–81 period. Of the 166 plans studied, 147 included major medical provisions in 1974. Eleven plans added such coverage within the next 7 years, while one dropped it, resulting in the total of 157 plans with major medical benefits in 1981 (table 1).

Major medical insurance

Major medical coverage is a relatively recent concept, introduced in 1949 by the Liberty Mutual Insurance Co.⁵ Previously, health insurance plans usually consisted of separate coverages for hospital, surgical, and medical (doctors' charges) expenses. The emphasis in these "basic" plans was on "first-dollar" coverage; that is, an insured individual was not required to make an initial payment for care before insurance benefits were forthcoming. However, benefits generally were geared toward short-term care in a hospital with little, if any, coverage of expenses incurred elsewhere. In addition, basic plans typically contained internal limits on either eligible charges or duration of coverage for each type of expense or procedure. Benefits as a rule were inadequate to meet the costs of a chronic disability.

Major medical coverage has altered the focus of health insurance plans. Major medical plans—geared toward protection against the cost of catastrophic illness or injury—typically have maximum payment limits substantially higher than those of basic benefit plans. To hold down insurance premiums, major medical plans eliminate first-dollar coverage and call for cost-sharing by the employee through deductible and coinsurance provisions. The deductible is a specified amount that the insured individual must pay toward medical expenses before any charges are paid by the plan. Medical expenses in excess of the deductible are shared by

Exhibit 1. Expenses typically covered by major medical plans

- Hospital room and board
- Hospital—miscellaneous services
- Physicians' services—in hospital, office, or home
- Surgery and anesthesia
- Private-duty nursing

- Mental health care
- Laboratory tests
- Diagnostic X-rays
- Drugs and medicines
- Medical equipment—artificial limbs, crutches, braces

- Rental of wheelchair or hospital bed
- Physiotherapy
- Radiation therapy
- Treatment in outpatient department of hospital
- Local professional ambulance service

the insured individual and the plan through a predetermined coinsurance formula; plans typically pay 80 percent of the covered charges while the insured pays the remaining 20 percent. Major medical plans, therefore, are consistent with traditional insurance goals: protection against infrequent and unpredictable large financial risks.⁶

As indicated in exhibit 1, major medical plans cover in one policy a wide range of medical expenses, subject to a single overall set of payment limitations. (As described later in this article, separate internal limits on benefits may apply to a few categories of health care, such as outpatient mental health care.)

Non-accident related dental care, vision care, and care in a convalescent facility are more often covered through basic plans (table 2).⁷ Other expenses commonly excluded from major medical coverage pertain to eyeglasses, hearing aids, routine physical examinations, cosmetic surgery unless necessitated by an accident, employment-related injuries and injuries caused by war, and expenses due to an injury or illness which occurred immediately prior to joining a plan. (The "pre-existing condition" clause normally expires after a 3-month period during which no expenses are incurred because of the condition, or 1 year after joining the plan, whichever comes first.)

Major medical plans have caught on rapidly in the three decades of their existence. In 1951, 100,000 people in the United States—insured individuals and their covered dependents—were under major medical policies.⁸ By the end of 1960, the total topped 32 million, and by the end of 1980 it reached 154 million.⁹

Nevertheless, the growing popularity of major medical insurance has not ended interest in basic benefits. Both types of insurance commonly are found within the same health care package (table 1). Of the 166 plans studied, only nine provided coverage solely through basic benefits in 1981. (Provisions of these nine plans are examined at the end of

Table 1. Types of major medical coverage in a cohort of employee health insurance plans, 1974 and 1981

Type of coverage	1974		1981	
	Number	Percent	Number	Percent
All plans	166	100	166	100
With major medical coverage	147	89	157	95
Supplemental plan ¹	110	66	113	68
Comprehensive plan ²	37	22	44	27
Pure form	10	6	15	9
Modified form	27	16	29	17
With basic coverage only	19	11	39	5

¹Supplemental plans, as the name indicates, supplement basic plans. They cover expenses that exceed the limits specified by the basic plans and cover some expenses that are not covered by the basic plans.

²Comprehensive plans stand alone, without basic coverage, and cover a wide range of medical expenses in a single package. In a pure comprehensive plan, all benefits are subject to the deductible and coinsurance provisions. In a modified comprehensive plan, some expenses (most commonly hospital charges) are covered without deductible or coinsurance requirements.

³Includes one plan which replaced major medical coverage with extensive basic coverage between 1974 and 1981.

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

this article). The remaining 157 plans usually included major medical benefits as a supplement to basic benefits. Table 2 shows the frequency of basic and major medical coverages in the 166 plans by type of health care.

Supplemental and comprehensive plans

Major medical insurance is of two types—supplemental and comprehensive. The first type supplements basic plans that normally provide coverage for hospital, surgical, and in-hospital physicians' care up to specified dollar amounts or days of treatment. Supplemental plans customarily cover expenses that exceed the limits in these basic plans; in addition, they provide protection against types of expenses not covered by the basic benefits, such as for private duty nursing and prescription drugs. After exhaustion of basic benefits, an insured individual is responsible for charges up to the amount of the deductible; additional expenses are then paid by the supplemental major medical plan on a coinsurance basis.

The second type of major medical plan stands alone and covers a wide range of medical expenses in a single package—hence the term “comprehensive.” In the “pure” form, all covered expenses are subject to deductible and coinsurance provisions. “Modified” forms, in contrast, cover some initial expenses—especially hospital-related—without deductible or coinsurance requirements. For example, a plan might cover in full the first \$5,000 of hospital expenses and 80 percent of additional hospital charges. All other types of expenses, however, would not be covered until after the specified deductible was met, at which time the plan would begin to pay 80 percent.¹⁰

As shown in table 1, about three-fourths of the major medical plans in 1974 and 1981 were supplemental plans.¹¹ The 11 plans that initiated major medical protection between 1974 and 1981 all added supplemental coverage to existing basic plans. At the same time, a net increase of seven comprehensive plans occurred within existing major medical packages. The “pure” form constituted a minority of the comprehensive plans in both 1974 and 1981, but did increase its share of the total over the 7-year period.

Although supplemental plans outnumbered comprehensive plans in this study, the trend may be toward the latter. The Health Insurance Institute has reported that, during the first three months of 1981, three-fourths of the new group major medical policies issued by insurance carriers were comprehensive rather than supplemental.¹²

Cost-sharing provisions

As noted earlier, major medical plans are characterized by deductible and coinsurance provisions. The former hold down insurance premiums by eliminating numerous small claims, while both cost-sharing features may indirectly curb insurance costs by discouraging overuse of benefit provisions.

Deductibles. All of the major medical plans in this study specified deductibles. These deductibles are normally a uniform dollar amount for insured individuals or a variable amount based on employees' earnings. Deductibles usually must be met once per calendar year by each covered individual, although some plans require that a separate deductible be met for each illness. In most plans, any expenses applied against the deductible in the last 3 months of a calendar year will also reduce the deductible for the next calendar year by that amount. Uniform flat dollar deductibles were predominant in the plans studied, with the most common deductible being \$100 (table 3). Relatively few of the plans had adjusted their flat amounts between 1974 and 1981, despite the rapid increases in medical care costs.

Most plans limit the total number of deductibles that a family must pay in a year. No data are available from the 1974 study on family limits for deductibles, but 120 of the 157 major medical plans in 1981 had such a limit, usually two or three deductibles per family. Also, many plans require that only one deductible be met if two or more persons in a family incur expenses as a result of a single accident.

Coinsurance. With few exceptions, major medical plans paid 80 percent of expenses above the specified deductible in both years studied. Nevertheless, there was a tendency to liberalize these coinsurance provisions during the intervening period. Four plans paid less than 80 percent in 1974, but none did so in 1981; and, the number paying more than 80 percent increased from 5 in 1974 to 15 by 1981, most of which were comprehensive plans.

A single coinsurance provision usually applies to all types

Table 2. Basic and major medical coverage of selected categories of health care, 166 employee health insurance plans, 1981

Category of health care	Plans with coverage under				Plans without coverage
	Basic benefits only		Major medical benefits only	Basic and major medical benefits	
	Full coverage	Coverage with limitations			
Hospital room and board	4	20	15	127	—
Hospitalization-miscellaneous services	3	19	17	127	—
Extended care ¹	—	58	26	18	64
Surgical care	257	9	32	68	—
Physician visits—in hospital	12	8	50	96	—
Physician visits—office	4	3	133	19	7
Diagnostic X-ray and laboratory ³	36	6	19	105	—
Hospital outpatient care	25	10	16	115	—
Prescription drugs—nonhospital	4	20	126	12	4
Private-duty nursing	1	1	156	—	8
Mental health care	—	10	17	137	2
Dental care	1	114	9	—	42
Vision care	2	41	3	—	120

¹Care provided by a nursing facility or home health care agency.
²Plans paying physician's fee up to the “usual and customary” charge for the procedure performed.
³Charges incurred in the outpatient department of a hospital and outside of the hospital.

NOTE: Dash indicates no plans in the category.

of expenses covered under a major medical plan. One common exception is out-of-hospital mental health care, which often is treated separately and covered at a lower coinsurance ratio, usually 50 percent. This pattern was reflected in the major medical plans studied (table 4). Plans that added this benefit during the 1974–81 period, however, tended to provide 80-percent coverage, the same coinsurance rate as for other covered illness.¹³

Limitations on payments

Although expenses covered by major medical plans are shared by the insurance carrier and the insured individual, limits are often set on the amount either must pay. The insured may be protected against the costs of a catastrophic illness by limits on out-of-pocket expenses for deductibles and coinsurance. The major medical plan, however, generally sets an overriding limit on the amount to be paid to any individual. This plan maximum, usually cumulative for a lifetime, limits the claims against the insurer resulting from chronic illness or repeated surgical procedures. Once the plan maximum is reached, any out-of-pocket limit is

Table 4. Coinsurance provisions for out-of-hospital mental health care in a cohort of major medical plans, 1974 and 1981

Coinsurance provision	1974		1981	
	Number	Percent	Number	Percent
All plans	147	100	157	100
With coverage for out-of-hospital mental health care	125	85	142	90
Covered at same coinsurance level as other illnesses	46	31	57	36
Covered at lesser coinsurance level	79	54	85	54
50 percent	73	50	76	48
Other percent	6	4	9	6
Out-of-hospital mental health care not covered	22	15	15	10

suspended, and the insured is liable for all additional expenses.

Out-of-pocket limits. When an individual is faced with an illness or injury that requires costly treatment—such as heart disease or cancer—the expenses necessitated by cost-sharing requirements can be substantial. As a result, some plans limit the amount individuals have to pay in any 1- or 2-year period. Once this out-of-pocket limit is reached, the major medical plan is fully liable for all subsequent expenses incurred, up to the plan maximum. The individual is not responsible for additional covered expenses through the end of the year in which the illness occurred, or until the end of the following year, depending on the particular plan.

One of the most significant developments in major medical benefits during the 1974–81 period was the increase in the number of plans limiting employees' out-of-pocket expenses. In 1974, only 10 of the plans studied had this limitation, but by 1981 the number had risen to 79, or one-half of the total (table 3). In 1981, out-of-pocket limits were found in 41 percent of the supplemental major medical plans and in 75 percent of the comprehensive plans studied.

Out-of-pocket limits in 1981 most commonly fell between \$1,000 and \$1,500 for each covered individual, although seven plans did contain limits exceeding \$2,500.¹⁴ These ceilings on payments by plan participants tended to be higher than in 1974, but a reversal of this trend may have begun. The Health Insurance Institute reported that of the new group major medical policies issued by insurance carriers during the first 3 months of 1981, 90 percent limited insured individuals' liability; two-thirds set limits under \$1,000.¹⁵

Plan maximums. Limits on the insurer's liability are usually expressed on a lifetime basis or per disability or per year. Lifetime limits are by far the most common. Over the period studied, there was a slight decrease in the proportion of plans that included specified ceilings on benefits, from 93 percent in 1974 to 89 percent in 1981. As shown below, there was also a pronounced shift toward lifetime maximums and away from per disability or per year limits.

Table 3. Cost-sharing provisions in a cohort of major medical plans, 1974 and 1981

Provision	1974		1981	
	Number	Percent	Number	Percent
All plans	147	100	157	100
Deductible¹				
Total	147	100	157	100
Uniform dollar amount	121	82	142	90
\$25	4	3	4	3
\$50	37	25	40	25
\$75	3	2	9	6
\$100	66	45	81	52
\$150	6	4	4	3
Other	5	3	4	3
Based on earnings	26	18	15	10
Flat percentage	17	12	10	6
Scheduled amount	9	6	5	3
Coinsurance²				
Total	147	100	157	100
75 percent	4	3	—	—
80 percent	138	94	142	90
85 percent	3	2	8	5
90 percent	2	1	7	4
Out-of-pocket limit³				
Total	10	7	79	50
Under \$1,000	7	5	14	9
\$1,000–\$1,500	2	1	39	25
\$1,501–\$2,500	—	—	19	12
Over \$2,500	1	1	7	4

¹The amount of medical expenses that an insured person must incur before benefits are payable by the plan.

²The ratio in which medical expenses are shared by the plan and the insured person. This table reports the percentage paid by the plan.

³A limit on the amount of medical expense employees must pay from their own funds in a 1- or 2-year period due to cost-sharing provisions. The plan pays the balance, up to any specified maximum.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no plans in the category.

	1974	1981
All major medical plans studied	147	157
With specified maximum	136	139
Lifetime maximum only	82	108
Per disability or per year maximum only	27	9
Lifetime and per disability or per year maximum	27	22
Without maximum	11	18

One of the most striking developments between 1974 and 1981 was the increase in the amount of plan maximums. Of the major medical plans that were operative in both years, 85 percent had increased maximum benefits by 1981, while 7 percent had kept their 1974 ceilings. The remaining 8 percent of the plans studied provided unlimited benefits in both years.

Of the plans with lifetime maximums in 1974, 59 percent had ceilings under \$50,000 (table 5). By 1981, the average ceiling had increased from just over \$50,000 to about \$250,000, and only 8 percent of the plans had lifetime maximums under \$50,000. The percent of plans with lifetime maximums of at least \$250,000 increased from 4 percent to 53 percent over the 7 years.

Comprehensive major medical plans included in this study tended to include higher specified lifetime ceilings on benefits than the supplemental plans. In 1981, only 1 of the 38 comprehensive plans had a lifetime maximum below \$100,000, compared with 26 of the 92 supplemental plans. Conversely, 69 percent of the comprehensive plans set maximums at \$250,000 or more, compared with 47 percent of the supplemental plans.

Most major medical plans with a lifetime ceiling on benefits also contain a reinstatement clause. This clause raises the dollar limit that potentially could be paid by the plan. An individual who has received major medical benefits often

Table 5. Maximum coverage in a cohort of major medical plans with lifetime coverage limitations, 1974 and 1981

Maximum coverage	1974		1981	
	Number	Percent	Number	Percent
All plans	109	100	130	100
Under \$50,000	64	59	10	8
\$50,000	23	21	15	12
\$75,000	—	—	2	2
\$100,000	18	17	23	18
\$150,000	—	—	9	7
\$200,000	—	—	2	2
\$250,000	4	4	40	31
Over \$250,000	—	—	29	22

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no plans in the category.

Table 6. Method of funding in a cohort of major medical plans, 1974 and 1981

Funding medium	1974		1981	
	Number	Percent	Number	Percent
All plans	147	100	157	100
Commercial insurer	128	87	110	70
Blue Cross-Blue Shield	15	10	15	10
Self-funded	4	3	31	20
Other ¹	—	—	1	1

¹Partially insured through a commercial carrier and partially self-funded.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no plans in the category.

can obtain restoration of the full lifetime maximum by furnishing satisfactory medical evidence of insurability. Regardless of the individual's physical condition, however, a typical plan will automatically restore up to \$1,000 of the maximum each year.

Internal limits. A key feature of major medical plans is their stress on a single overall limit on benefits, cutting across individual categories of health care. Nevertheless, major medical policies may include specific limits on coverage of such items as outpatient mental health care, extended care in a nursing home or by a home health care agency, private duty nursing, and dental care. These internal limits may be expressed as dollar amounts or days of coverage. For example, the most common limitation in 1981 for outpatient mental health care was \$1,000 a year.

Funding

The great majority of the major medical plans in this study were financed through commercial insurance companies, which are responsible for both benefit payments and administrative services. Nearly 90 percent of the major medical plans in 1974 were financed in this manner, with the remainder mainly provided through Blue Cross-Blue Shield contracts (table 6). By 1981, however, a substantial increase in self-funding by employers had dropped the proportion of commercially insured plans in the study to 70 percent. Large firms, with substantial financial and administrative resources, are the most likely to choose self-funding. Among their objectives are economy in providing benefits and flexibility in plan design.

Companies able to assume the financial risk of self-funding are not always willing to devote resources to administering benefit provisions. These firms can purchase "Administrative Services Only" (ASO) contracts issued by insurance companies. Under these contracts, insurance companies handle administrative procedures such as claims processing, while the self-insured employers are responsible for benefit payments. The majority of the self-funded plans in this study had ASO contracts.

Plans without major medical coverage

While the proportion of plans with major medical coverage increased from 89 percent to 95 percent over the 1974–81 period, there were still 9 plans in the study without this coverage in 1981. These plans were, however, more comprehensive than the typical basic benefit plans. All but one offered at least 365 days of hospital coverage per illness. Seven of the nine provided full coverage of surgical expenses,¹⁶ and the other two contained fairly liberal surgical schedules. Only one of the plans specified an overall plan maximum (\$50,000). In a few cases, provisions for non-hospital and outpatient expenses were limited, but coverage of the most costly medical expenses seemed to be the norm. All nine of the plans without major medical benefits were collectively bargained, which suggests a reluctance by some unions to accept the cost-sharing concepts inherent in major medical plans.

DESPITE THE WIDESPREAD POPULARITY of major medical plans, there is debate as to their merits. Supporters believe that major medical plans offer valuable protection against the expenses of a major illness, while at the same time

discouraging overuse of medical services for trivial conditions through the inclusion of cost-sharing requirements. However, critics claim that deductibles and coinsurance are barriers to effective health care because they deter early diagnosis of illness. This delay in seeking medical care may increase hospital usage, which in turn increases the cost of medical care. It is also contended that cost-sharing provisions are ineffective in controlling the use of health care facilities, for physicians, not patients, determine the demand for medical services.¹⁷ Thus, critics often support comprehensive prepaid group practice plans—Health Maintenance Organizations—which stress coverage of first-dollar costs.

Although some disagree with the cost-sharing concepts of major medical insurance, they cannot deny the marked improvement in benefits offered by these plans. Increases in maximum benefits, addition of limits on out-of-pocket expenses, and broadening of risks covered have all helped to improve insured individuals' ability to cope with the high cost of medical care. Will further improvements be made if medical costs continue to rise as sharply as they have in the past decade, or will a reverse trend emerge in an effort to counter increases in insurance premiums? The answer to this question is still far from evident. □

FOOTNOTES

¹ As a percent of gross national product, national health expenditures advanced from 8.1 to 9.8 percent over the 7-year period. See Robert M. Gibson and Daniel R. Waldo, "National Health Expenditures, 1981," *Health Care Financing Review*, September 1982, p. 19.

² The annualized rate of change was calculated from data presented in table 19, p. 66 of this issue.

³ Regarding HMOs, see Allan Blostin and William Marclay, "HMOs and other health plans; coverage and employee premiums," *Monthly Labor Review*, June 1983, pp. 28–33.

⁴ The latter study is part of a series of annual surveys conducted in private sector establishments in the United States, excluding Alaska and Hawaii, employing at least 50, 100, or 250 workers, depending on the industry. Industrial coverage includes: Mining; construction; manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; and selected services. Findings for 1981 are reported in *Employee Benefits in Medium and Large Firms, 1981*, Bulletin 2140 (Bureau of Labor Statistics, 1982). For information on the background and conduct of the survey, see Robert Frumkin and William Wiatrowski, "Bureau of Labor Statistics takes a new look at employee benefits," *Monthly Labor Review*, August 1982, pp. 41–45.

⁵ Herman M. Somers and Anne R. Somers, *Doctors, Patients, and Health Insurance* (Washington, The Brookings Institution, 1961), p. 281.

⁶ High-cost, or "catastrophic," illnesses are analyzed in *Catastrophic Medical Expenses: Patterns in the Non-Elderly, Non-Poor Population* (Congress of the United States, Congressional Budget Office, December 1982).

⁷ Dental and vision care coverage at times were provided by separate basic plans even where comprehensive major medical policies were in effect. Oral surgery, however, is generally covered by basic surgical benefits or major medical plans.

⁸ Somers and Somers, *Doctors, Patients, and Health Insurance*, p. 387.

⁹ *Source Book of Health Insurance Data 1981–82* (Washington, Health Insurance Institute, 1982), p. 16. Early BLS studies of major medical plans are reported in *Analysis of Health and Insurance Plans Under Collective Bargaining, Late 1955*, Bulletin 1221 (Bureau of Labor Statistics, 1957); and *Health and Insurance Plans Under Collective Bargaining: Major Medical Expense Benefits, Fall 1960*, Bulletin 1293 (Bureau of Labor Statistics, 1961).

¹⁰ In preparing table 2, modified comprehensive major medical plans providing initial full coverage of expenses were considered as offering both basic and major medical benefits. One of the early comprehensive plans was that offered by the General Electric Co. in 1955. See E. S. Willis, "GE's Experience with Comprehensive Health Insurance," *Monthly Labor Review*, June 1958, pp. 621–25.

¹¹ About three-fifths of the participants in major medical plans in medium and large firms were under supplemental plans. See *Employee Benefits in Medium and Large Firms, 1981*, p. 5.

¹² *New Group Health Insurance Policies Issued in 1981—Complete Tables* (Washington, Health Insurance Institute, 1981), tables 13, 18.

¹³ Apart from mental health care, two of the plans in the study varied the coinsurance rate for different categories of medical care; the most significant ratio in these plans was used in preparing the distribution included in table 3.

¹⁴ Some of the plans also contained overall limits on out-of-pocket expenses for an entire family.

¹⁵ *New Group Health Insurance Policies Issued in 1981*, tables 13, 18.

¹⁶ All seven covered the surgeon's fee up to the "usual and customary" charge for the procedure performed.

¹⁷ For a more in-depth look at some criticisms of cost-sharing provisions, see Bert Seidman, "Bad Medicine for Health Care Cost," *AFL-CIO American Federationist*, April–June 1982, pp. 20–28.

Job commitment in America: is it waxing or waning?

An analysis of literature and popular indicators of the work ethic show no evidence of either increasing or decreasing commitment; many workers continue to work more than the standard 40-hour week

JANICE NEIPERT HEDGES

The degree of commitment Americans have to the work ethic continues to preoccupy both scholars and politicians. But, their discussions often are based on philosophical reflection and anecdotal evidence rather than data.

This article examines some of the "indicators" that have been used to assess job commitment; statistical series on absence from work, quits, and working part time by choice—phenomena generally associated with weak commitment—and multiple job-holding and overtime—often associated with strong commitment. In addition, comprehensive measures of worktime (scheduled, actual and preferred) and other possible indicators of job commitment are examined. Finally, the commitment of three worker groups—men of prime working age, women, and youth is discussed.

Some indicators of commitment

Absence among workers frequently is assumed to include a substantial element of "absenteeism" that arises from poor attitudes. In fact, much of the research on absence implies that workers are freer to decide whether or not to go to work than is the case. A model of attendance developed by Richard M. Steers and Susan R. Rhodes incorporates both ability

and motivation to attend work.¹ Health, family responsibilities, and transportation are the principal determinants of ability in the model. The determinants of motivation are job satisfaction and several internal and external pressures, *among which* are organizational commitment and personal work ethic.

In practice, absenteeism and legitimate, or unavoidable, absence are not easily separated. The difficulties arise in part from lack of agreement on definitions and on acceptable levels of absence.² To circumvent these and other problems, attempts to identify absenteeism generally have focused on the duration or timing of an absence. For example, absences of a few days or less and those occurring just after the weekend (the "Blue Monday Syndrome") often are assumed to be avoidable. Such approaches neither exclude all legitimate absence nor capture all absenteeism.

A slight decline in absence as unemployment rises can be observed in national data from the Bureau of National Affairs' (BNA) survey of selected employers and from the Current Population Survey (CPS) of households covering all workers.³ This cyclical pattern is attributed by some to an improved work ethic as employees seek to protect their jobs. Alternative explanations include the fact that younger workers and production workers, groups which tend to be absent more frequently, are among the first to be laid off.⁴

National data show no secular increase in absence that would support a thesis of weakening job commitment. De-

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spite rapid growth in sick leave benefits, CPS data show that the incidence of absence attributed to illness or injury fluctuated narrowly between 1968 and 1980, ranging from 2.3 to 2.5 percent a week for part-week absences, and from 1.5 to 1.7 percent for absences of a full week. Absences attributed to miscellaneous reasons (including family responsibilities, transportation problems, and personal business) generally remained at just under 2 percent for part-week absences, and under 1 percent for full-week absences.

"Quits," or resignations, are a legitimate concern only if they are excessive or occur for the wrong reasons. To insist that workers not change jobs would demand greater commitment from employees than from employers. It would impede the efficient allocation of labor. The rising incidence of quits among production workers in the 1960's, for example, could be attributed in part to the wider diffusion of market information to a more educated and sophisticated work force. As Paul A. Armknecht and John F. Early observed: "Better knowledge of alternative opportunities made it possible for the worker to behave more like the classical economic man."⁵

The literature on the determinants of quits is extensive; the findings are diverse. The major factors identified by researchers were summarized by John R. Hinrichs as "items external to the individual, such as pay, working conditions, and co-workers; factors associated with the employees' personal characteristics, such as age and sex; and factors tied to the employees' reactions to the job, such as job satisfaction, involvement, and expectations."⁶

Hinrichs noted that organizational commitment (an employee's expressed intent to remain with a firm) was emerging as a key variable. Allen I. Kraut, for example, held that, "... a direct measure of intent to remain ... is a more powerful predictor of ... turnover than are other measures of job satisfaction."⁷ Kraut's research was predicated on the likelihood that the employee provides "the best synthesis of attitudes toward his work situation, his opportunities elsewhere and other aspects of his life that bear on a decision to remain on the current job ..."⁸ However, social psychological factors were assigned the role of intervening variables by James L. Price in a codification of the literature on organizational turnover.⁹ In his view, the determinants of turnover are structural: pay (the money, fringe benefits, and other commodities of financial value received in return for services), integration (the extent of workers' participation in primary or quasi-primary groups, or both), communication (the degree to which information is transmitted), and centralization (the degree to which power is concentrated). Paul A. Armknecht found tenure and relative wages to be the leading variables in determining inter-industry differences.¹⁰

The diversity of findings supports Hinrich's conclusion that "the search for some primary and overriding reason for turnover has not been particularly successful." Mean-

while, recent studies using improved models and techniques have found no significant secular trend in the quit rate.

Voluntary part-time's association with poor job commitment is refuted by managerial experience. Users of part-time employees report positively on their performance.¹¹ The effort expended per hour at work, as assessed by workers themselves, is greater among part-time than full-time employees.¹²

The work commitment of part-time employees is particularly noteworthy in view of their conditions of employment. Their median weekly earnings in 1981 were about three-tenths those of full-time workers, although their workweeks were almost half as long.¹³ The disadvantage in relation to fringe benefits is even greater. For example, paid sick leave was available in 1978 to little more than half the part-time employees (usually prorated), compared with 19 of 20 full-time employees in the same firms.¹⁴ But the most severe test to the commitment of part-time workers may be management's perception, as reported by Stanley D. Nollen and others, that "[Part-time employees are] ... outside normal career paths and not interested in, or in some cases eligible for, advancement or promotion."¹⁵ Notwithstanding the terms of part-time employment, the same authors observed that:

With few exceptions, employers in user organizations believe in the seriousness of purpose of part-time workers. Few managers refer either to positive characteristics ... such as maturity and stability, or to negative characteristics, such as lack of commitment. Neither are important issues for users.

Overtime hours are worked by a highly diverse group, including factory operatives and managers. About two-fifths of all employees who exceeded the standard 40-hour workweek on their sole or primary job in May 1980 earned a premium wage for overtime.¹⁶

Overtime, even for a premium wage, receives a mixed reaction from workers. Richard Perlman observed that the typical worker (in a position of equilibrium wage income and leisure at a given work schedule) would always choose to work overtime hours at premium pay, as would all under-employed workers.¹⁷ Some over-employed workers could be induced to work overtime if the premium pay were sufficiently high, but others would refuse if given the option. About one-fifth of the employees who worked overtime in 1977 were unable to refuse without penalty.¹⁸ Both the right of refusal and the equal distribution of overtime are subjects of collective bargaining.¹⁹

When the freedom of male household heads to vary their hours of work in the early 1970's was examined, it was found that nearly half of them (46 percent) would not have been paid for overtime. With few exceptions, these workers also lacked a definite marginal wage rate for reducing their usual weekly hours.²⁰ Among the male family heads who were in jobs which paid for marginal work, well under one-

fifth could vary their hours in either direction; about one-fourth could either increase or decrease their hours; and the remainder were fully constrained. Edward Kalachek noted: “. . . somewhat less than one-third of all blue collar workers and one-fifth of all white collar workers had jobs which provided both marginal pay for marginal work and some freedom for the worker to vary hours.”²¹

Data on overtime for production workers in manufacturing show a cyclical pattern, but no secular trend. Between 1960 and 1979, average weekly hours of overtime per worker ranged between 2.1 and 3.9 hours.

Multiple jobholding is a solution to insufficient hours on the primary job for some workers. When hours on all jobs were totaled, about three-fourths of the multiple jobholders in 1980 exceeded the standard workweek.²²

A small minority (about 5 percent of all workers) holds more than one job. The practice is most prevalent among husbands, least prevalent among wives (6.2 percent versus 3.4 percent in 1980). By occupation, multiple jobholding occurs most often among workers whose primary jobs are in professional or technical occupations. Such workers tend to have more marketable skills as well as more flexible work schedules. Protective service workers (police, guards, and firefighters) and farm workers also have above-average rates. Factory operatives, who have greater opportunity than most workers to work overtime for premium pay, and clerical workers, who are predominately women, are the least likely to hold more than one job.

The conditions that have been identified as encouraging a worker to hold more than one job include little or no opportunity for overtime or extra hours on the primary job, a work schedule on the primary job that permits a second job, and a feeling that income is inadequate.²³ Financial reasons are the principal motivation cited by the majority of multiple jobholders (55 percent in 1979) in the Current Population Survey. The second largest group (18 percent) explained that they enjoy the work,²⁴ and Richard Perlman noted that some get more satisfaction from their second jobs, which are not their primary jobs only because of lower wages or limited hours of work.²⁵

According to Paul Mott:

. . . perhaps the most common motivation to moonlight arises from a complex set of conditions which impinge on the family's economic planning. Every family pursues a certain style of life as a goal and every style . . . has its price tag. If the husband's wages are inadequate for obtaining the desired standard of living, then the family must make some decisions . . . One option is to reduce their economic aspirations . . . Another alternative is for the wife to take a job . . . Moonlighting is another option.²⁶

A slight decline in multiple jobholding rates among husbands in recent years (almost 1 percentage point from 1973 to 1979), coupled with employment growth among wives, suggests that more families may be choosing the second option. Edward S. Sekscenski pointed out: “. . . the growth

in the number of multi-earner families may have diminished the economic incentive for some husbands to hold more than one job.”²⁷ An increase in the prevalence of multiple jobholding among all employed women (from 2.7 percent in 1973 to 3.5 percent in 1979) is in sharp contrast to the decline among men. Rising rates for women may be explained in part by the growth in the proportion of women who are their families' primary earners.

To summarize, absence and turnover—two of three phenomena often associated with weak job commitment—are poor indicators because they involve determinants which are unrelated to commitment. The third phenomenon—voluntary part-time work—attracts many persons who are highly motivated.

Overtime work and multiple jobholding are associated with strong commitment. Overtime gets a mixed reaction from workers, some would prefer more hours of overtime than are offered, others seek the right to refuse overtime. The cyclical pattern in overtime hours, however, suggests that business conditions rather than worker preferences determine the amount of overtime worked. Multiple jobholding is practiced by a small minority: financial reasons are most frequently the primary motivation, followed by “enjoy the work.” The prevalence of multiple jobholding has been declining among men, but rising among women.

Significance of worktime

In weighing the extent to which workers' hours decisions are restricted by institutional rigidities, Edward Kalachek observed that although employers normally set the work schedule they do not determine it: “The employers' offer curve merely represents one side of the market. The workers' supply curve represents the other side.”²⁸ For this reason, trends in weekly schedules and leave benefits can provide insight into changes in the commitment that workers are prepared to make to a job. Bureau of Labor Statistics' area wage surveys of employers in metropolitan areas and its analyses of major collective bargaining agreements provide such data.²⁹ Neither source shows substantial growth in shorter schedules in recent years.

Scheduled hours. Weekly schedules of 40 hours or more were in effect for 89 percent of the plant workers and 60 percent of the office workers in metropolitan areas who worked full-time weeks in 1979–81. Schedules of fewer than 40 hours had gained a modest 4-percentage points since 1960–61, rising from 7 percent to 11 percent of all full-time schedules in plants and from 35 percent to 39 percent in offices. The continued dominance of 40-hour schedules probably can be attributed, at least partially, to the collision of forces: “fixed costs, fringe benefits and payroll taxes encourage employers to offer longer workweeks until they encounter the penalty pay provisions of the FLSA [Fair Labor Standards Act].”³⁰ Nonetheless, had workers preferred more

leisure over higher earnings, shorter schedules would have spread more rapidly.

One of the most significant developments in scheduled worktime during the past 20 years has been the narrowing gap between plant and office workers. Weekly schedules of 41 hours or more were relatively rare for office employees as early as 1960. In the ensuing two decades, the proportion of plant workers on such schedules declined from 11 to 6 percent. Differences between plant and office workers in average scheduled hours were almost halved, as average hours remained steady in offices (38.9 in 1960–61 and 38.8 in 1979–81) and declined in plants (from 40.5 to 39.7).

Differences in paid time off also narrowed. At least 2 weeks of vacation were available by 1960–61 to most office workers with 3 years of service;³¹ between 1960–61 and 1978–81, the proportion of plant workers with such benefits rose from 63 to 88 percent. Holidays numbered the same for plant and office workers in 1978–81: just under 10 days a year. These trends toward equality in weekly schedules and leave entitlements should not be interpreted as a weakening of the job commitment of plant employees, but rather as a healthy development.

Shorter workweeks, more paid vacations and holidays, and earlier retirement have been part of organized labor's strategy to improve job security. John Zalusky acknowledged that "part of the appeal for a shorter work week is a demand for more leisure time," but he emphasized that "... the strongest push comes for a desire to protect and increase jobs."³² Similarly, Howard Young explained the growth in paid personal holidays (which, in contrast to traditional holidays, keep firms open and operating): "For some workers . . . [paid personal holidays] means a job opportunity. . . . In pre-bargaining conferences, the membership's message was clear: jobs are the issue."³³

Worktime reductions achieved under collective bargaining have been modest for the most part in recent years. In 1980, nine-tenths of the major agreements which referred to specific weekly hours stipulated 40 hours; one-tenth, fewer than 40 hours. This was the same distribution as in 1966–67, despite organized labor's often expressed support for shorter workweeks.³⁴ In vacation entitlements, the largest gains were reserved for workers with substantial seniority. For example, 4 weeks or more paid vacation after 15 years of service was provided in three-fifths of the major collective bargaining agreements in 1980, four times the proportion in 1966–67. As John Zalusky pointed out: "Vacation at the low end of the seniority list nears 100 percent entitlement while only a few workers would enjoy the extra week after 10 years' service."³⁵

Some workers, notably those whose jobs were particularly threatened by automation, achieved substantial reductions in annual hours in recent years. Among employees covered by United Automobile Workers–General Motors agreements, for example, the average full-time, straight-time work year declined an estimated 104 hours between

1967 and 1976, to 1,768 hours.³⁶ More recently, leaders of the Auto Workers and other unions have negotiated "give-back" clauses in efforts to lower employer costs and thus, hopefully, improve job security.³⁷

Actual hours. Hours at work per week or per year can differ substantially from scheduled hours. Overtime, wages in lieu of holidays or vacations, and multiple jobholding can extend hours at work beyond scheduled worktime; hours cutbacks and unscheduled absences curtail them. Hours engaged in work (a concept that excludes formal and informal work breaks and on-the-job training) approximate actual hours of work even more closely than do hours at work.

Weekly hours at work have declined substantially over the long term. At the turn of the century, persons employed in the civilian economy worked about 53 hours a week, on average. Their counterparts in the late 1970's, before the prolonged slump that began in 1980, worked about 39 hours.³⁸ Some researchers have observed, however, that the groups comprising the work force have had little or no net gain in leisure time since the end of World War II.

John Owen disaggregated weekly hours at work by sex, marital status, school enrollment, and age, and found that the workweeks of non-student men were as long in 1975 as in 1948, even after adjustments for vacations and holidays.³⁹ This finding was consistent with Thomas Kniesner's conclusion on the weekly hours of adult men from 1948 to 1970.⁴⁰ Shorter workweeks for women and longer weeks for male students in 1975 than in 1948, according to John Owen, reflected compositional changes within those groups: wives and mothers, who tend to put in fewer hours in paid jobs than other women, were a larger component of women workers in 1975, while older students, who tend to work more hours than younger students, were a larger component of employed students. Leisure, thus, had not increased in recent decades, but,

Indeed, one could more reasonably interpret the increased employment of groups with extensive nonmarket work responsibilities as tending to reduce free time. Students must go to school, attend classes, and prepare assignments . . . [Similarly] the shift from full-time housewife to employed wife . . . was probably associated with a decline [in] free time.

Annual hours at work edged down about 40 hours from 1968 to the close of the 1970's for full-time, nonagricultural employees as a whole. Shorter workweeks accounted for roughly two-thirds of the reduction; holidays, about one-fourth; and liberalized vacation benefits, one-tenth. The highly publicized vacation gains for long-service employees had less impact than might have been expected. Earlier retirements among men, an influx of women and youth into the labor force, and rising unemployment had further reduced the minority of workers with as much as 15 years of service from 19 percent to 14 percent.⁴¹

Hours engaged in work (that is, actually working) are

significantly lower than hours at work. Work breaks and on-the-job training account for most of the difference.

Morning and afternoon work breaks of from 10 to 15 minutes each were provided all employee groups in a majority of the companies which responded to a Bureau of National Affairs survey on work scheduling policies.⁴² Employees own records of their time use throughout a 24-hour period show that scheduled breaks (such as for "coffee") averaged 16 minutes a day in 1976; unscheduled breaks ("socializing," personal business, and so forth), for another 27 minutes.⁴³ In another survey, about one-third of the employees reported that talking to friends, doing personal business, or just relaxing accounted for 30 minutes or more of their average workday.⁴⁴ Losses from these unscheduled breaks on this scale suggest weak job commitment.

The amount of effort expended by workers probably would be a better indicator of job commitment than a measurement of hours. Alfred Marshall pointed out that "... even if the number of [working] hours in the year were rigidly fixed, which it is not, the intensity of work would remain elastic."⁴⁵ Interest in the intensity of work effort has been directed toward alternative methods of pay, such as piecework and incentives, in particular work settings. However, a scale of work intensity developed at the Institute for Social Research provides some indication of the effort of various groups of workers.⁴⁶

Changes in the ratio of output to hours of labor input (productivity measures) sometimes are cited as evidence of changes in the work ethic—particularly when productivity declines. However, such indexes reflect the interaction of many factors, including technology, capital investment, human resources (education and skill), energy, and raw materials. They have little relevance to the commitment of workers to their jobs.

Preferred hours. The 40-hour reduction in annual worktime during the 1970's absorbed roughly one-sixth of the decade's productivity gains. Apparently the taste for fewer hours of work, though stronger than in the 1960's, was far weaker than the taste for additional goods and services.

Workers in general seem to be satisfied with their weekly hours. However, some would prefer to work additional hours for higher earnings, while others would be willing to exchange earnings for a reduction in worktime.

Working "excessive hours" was considered a problem by less than one-tenth of those who reported a problem with their hours in 1977—fewer by far than complained of "inconvenient hours."⁴⁷ Evidence from a variety of sources suggests that the workers who desire additional hours of work per week are more numerous than those who view their worktime as excessive. For example, in a 1978 national survey, more than twice as many workers preferred additional hours and proportionately higher earnings than favored fewer hours and lower earnings: 28 percent versus 11 percent.⁴⁸ Among male family heads surveyed in 1971,

those who were free to vary their hours worked longer workweeks than those who were constrained.⁴⁹

Choices between earnings and leisure were influenced, however, by the type of worktime reduction considered. In the 1978 survey, longer vacations were far more popular, for example, than shorter workweeks.⁵⁰

Perhaps the most telling evidence of the desire to commit more hours to paid work is the large group of employees (as many as 5 million persons in 1981) who want full-time employment but work part time for economic reasons.⁵¹ The group includes black, white, and Hispanic men and women of every age and level of education. Although the prevalence of part-time work for economic reasons peaks during periods of recession, the proportion of employees in this situation gradually rose from 2.0 percent of all employees in 1969 to 3.2 percent in 1979.

To summarize, analysis of worktime offers little support, on the whole, for the thesis of weakening job commitment. Reductions in scheduled worktime have been relatively modest in recent years, and have narrowed the gap between plant and office workers in weekly hours, vacations, and holidays. Job security has been the primary motivation for the reductions in scheduled worktime sought by organized labor. While hours at work have declined overall, changes in the composition of the work force are largely responsible. Major groups of workers, including adult men and women, and students have experienced little or no net gain in leisure since World War II. Some evidence of insufficient job commitment is found, however, in what appears to be excessive unscheduled work breaks reported by some workers.

The commitment of selected groups

Employed men of prime-working age (25 to 54 years) are less likely to be suspect of weak job commitment than are other workers. Before the economic downturn in 1979, their workweeks approached 44 hours on average. Almost 7 percent of them held more than one job.

However, recent trends in worktime for these men differ markedly by marital status. Single men of prime working age were working slightly more hours per week in 1979 than in 1968. In contrast, weekly hours of married men had declined by about one-half hour. The reduction was largest for husbands 25–34 years (almost 1 hour on average), but fewer hours also were reported by married men 35–54 years. Men in both marital groups continued to exceed the standard workweek on average (44.5 hours for husbands and 41.8 hours for single men in 1979).

The decline in weekly hours (as well as a drop in multiple jobholding rates) for married men of prime working age may be attributable, in part, to a tendency of workers in the growing underground economy to under-report hours, particularly those hours worked on second jobs. However, an important factor in reducing the weekly hours of married men probably was the rising prevalence of working cou-

ples.⁵² The same phenomenon also may explain the increased time men were spending taking care of family responsibilities.⁵³

Women workers as a group spend considerably less time than men at paid jobs. Women are far less likely than men to work year round (57 percent versus 71 percent in 1979). Moreover, in the weeks they work, their hours average substantially fewer than those of men (34.5 hours versus 41.6 hours in 1979).

Marital status, however, has a dramatic effect on sex differences in paid worktime. Among single persons, women workers have about the same likelihood as men of working year round, full time (36 percent versus 38 percent in 1979), whereas the proportion of wives who make that time commitment to a paid job is little more than half the proportion of husbands (43 percent versus 79 percent).

Analysis of weekly hours by marital status shows a similar pattern: single women average about nine-tenths as many hours at work as single men (32.6 hours versus 35.9 hours in 1979), while wives work less than four-fifths as many hours as husbands (34.4 hours versus 43.8 hours in 1979).⁵⁴

Although women spend less time in paid employment, work for pay plus work in family care is roughly the same for men and women: about 57 hours versus 56 hours in 1975.⁵⁵ Economic theory holds that the hours supplied to paid work and to unpaid household work by individual family members is determined by some consensus within families, based on the respective "efficiencies" of the individuals in market production versus household production. Thus, with women's hourly earnings substantially below those of men,⁵⁶ fewer hours for women in paid work and more in household production are based in economic realities.

The proportion of time at work actually spent working and the level of effort expended are reported to be higher for women than for men.⁵⁷

Youth's job commitment often is faulted, usually on the grounds of frequent job changes and work absences. Relatively high rates of turnover among youth are both natural and beneficial. The part-time or seasonal work which young people typically find as their first jobs seldom leads to full-time, year-round employment. Older youth may test a variety of full-time jobs before finding the type of work and the environment in which they can function best. Moreover, young workers have not acquired the seniority-based benefits that inhibit job changing among mature workers.

Although absences are more frequent among workers 16–24 years than among those 25 years and older, they tend to be shorter. The proportion of scheduled work time lost in 1980 was the same for youth as for persons of prime working age (3.3 percent versus 3.2 percent), and substantially less than for workers 55–64 years (4.0 percent). Moreover, youths' record on absences should be considered in conjunction with their relatively limited vacation benefits.

The practice in the United States of tying vacation entitlements to length of service provides young workers with little time off to make the adjustments from a generally less structured student life, and to cope with the demands placed on them as they set up their own households.

Part-time employment for students has been widely endorsed as a way to bridge the transition from school to work. This view is responsible in part for the employment growth among teenagers in the 1970's. In October 1979, 38 percent of the 16- to 19-year-olds enrolled in school were employed, and an additional 7 percent were looking for jobs.⁵⁸ The majority of student workers were at work 15 hours or more a week.

Recent studies tend to support a rising concern that some youth may be over-committed to paid work. Students' employment, particularly when it exceeds 15 or 20 hours weekly, has been found to entail costs as well as benefits. The costs include diminished involvement in school activities, increased absenteeism from school, and possibly a decline in academic grades.⁵⁹ The National Association of Secondary School Principals, noting that some students appear to be working excessive hours, has urged that a proper balance between job experience and class time be maintained.⁶⁰

Conclusion: encouraging signs

What is a reasoned assessment of the state of job commitment?

The phenomena frequently associated with weak commitment prove largely unreliable indicators. Many absences, for example, are unavoidable. Job changes often are both necessary and desirable. As for employees who work part time voluntarily, managers attest to their commitment.

When we turn to measures of worktime, we find that many employees continue to exceed the standard 40-hour week; some by working extra hours on their job (with or without premium pay), others by holding more than one job.

Average scheduled worktime and hours at work have declined very modestly in recent years. Moreover, reductions in hours to some extent have been more apparent than real. Major groups of workers, including adult men, are working as many hours as they did several decades ago. Heralded gains in vacation benefits for extended service are available to a relatively small and declining group of workers. Moreover, the impetus from organized labor for reduced worktime has risen more from a desire to protect and expand employment than to increase leisure.

"Hard" evidence of weak commitment rests largely on reports from a minority of workers that their unscheduled work breaks are of a length that most observers would consider excessive.

Because many workers are unable to increase or decrease their worktime (whether weekly hours or leave) freely, workers' stated preferences for worktime are helpful in evaluating commitment. Surveys show that far more workers

prefer longer workweeks and more pay than prefer fewer hours and less pay. However, workers are more willing to exchange earnings for longer vacations or sabbaticals than for shorter workweeks.

If the data show major cause for concern, it is that the desire for hours of work seems greater than the hours available. Several million men and women of every age—whether black, Hispanic, or white—want to work full time but can obtain only part-time jobs. The group is growing in number and as a proportion of all workers.

—FOOTNOTES—

ACKNOWLEDGMENT: The author thanks Paul O. Flaim, Bureau of Labor Statistics, for helpful comments on an earlier version of this paper.

¹Richard M. Steers and Susan R. Rhodes, "Major Influences on Employee Attendance: A Process Model," *Journal of Applied Psychology*, August 1978, pp. 391–407.

²To illustrate, some researchers include alcoholism and drug abuse in their definition of illness. See for example, John B. Miner and J. Frank Brewer, "The Management of Ineffective Performance," in Marvin D. Sunnett, ed., *Handbook of Industrial and Organizational Psychology* (Chicago, Rand McNally College Publishing Co., 1976).

³For BNA statistics on absence, see *BNA's Quarterly Report on Job Absence and Turnover*, various issues. CPS series on absence are included in *Labor Force Statistics Derived from the Current Population Survey: A Data Book, Volume I* (Bureau of Labor Statistics, 1982), and *Employment and Earnings* (Bureau of Labor Statistics, various issues).

⁴For a discussion of absence and unemployment, see Steers and Rhodes, "Major Influences on Employee Attendance."

⁵See Paul A. Armknecht and John F. Early, "Quits in manufacturing: a study of their causes," *Monthly Labor Review*, November 1972, pp. 31–37. For a further discussion of turnover and the allocation of labor, see Paul Armknecht, *Job Mobility Among American Nonagricultural Industries* (Dissertation, Washington, D.C., The Catholic University of America, 1982).

⁶John R. Hinrichs, *Controlling Absenteeism and Turnover: Highlights of the Literature* (Scarsdale, N.Y., Work in America Institute, Inc., 1980).

⁷Allen I. Kraut, "Predicting Turnover of Employees from Measured Job Attitudes," *Organizational Behavior and Human Performance*, April 1975, pp. 233–43. Turnover studies have focused so heavily on quits or resignations that the terms turnover and quits are used interchangeably. Labor turnover in the full sense is comprised of voluntary separations (resignations or quits), involuntary separations (dismissals, layoffs, retirements, and deaths), and accessions.

The question used to elicit an expression of intent was: "If you have your own way, will you be working for (this company) 5 years from now (1-Certainly, 2-Probably, 3-Not sure one way or the other, 4-Probably not, 5-Certainly not)."

⁸See James L. Koch and Richard M. Steers, "Job Attachment, Satisfaction, and Turnover Among Public Sector Employees," *Journal of Vocational Behavior*, February 1978, pp. 119–28; and Lyman W. Porter, Richard M. Steers, and Richard T. Mowday, "Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians," *Journal of Applied Psychology*, October 1974, pp. 603–09.

⁹James L. Price, *The Study of Turnover* (Ames, Iowa, Iowa State University Press, 1977).

¹⁰Armknecht, *Job Mobility*.

¹¹Stanley D. Nollen, Brenda Broz Eddy, and Virginia Hider Martin, *Permanent Part-Time Employment: The Manager's Perspective* (New York, Praeger Publishers, 1978); and Comptroller General of the United States, *Part-time Employment in Federal Agencies: Report to the Congress* (Washington, D.C., U.S. Government Printing Office, 1976).

¹²Frank Stafford and Greg J. Duncan, *The Use of Time and Technology by Households in the United States*, Working Paper Series (Ann Arbor, Mich., Institute for Social Research, 1979).

Some encouraging signs appear in the data. One is a small reduction in the weekly hours of married men, who traditionally have worked very long hours. It may be that the rising employment of wives is aiding husbands to move toward a little better distribution of their time between paid work and household responsibilities. The second encouraging sign is that weekly schedules and leave benefits of production workers are approaching those of office workers. Few are likely to read these changes as evidence of a weak work ethic among married men or production workers. □

¹³Earl F. Mellor and George D. Stamas, "Usual weekly earnings: another look at intergroup differences and basic trends," *Monthly Labor Review*, April 1982, pp. 15–24.

¹⁴Stanley D. Nollen and Virginia H. Martin, *Alternative Work Schedules*, Parts 2 and 3 (New York, AMACOM, 1978).

¹⁵Nollen, Eddy, and Martin, *Permanent Part-Time Employment*.

¹⁶Daniel E. Taylor and Edward S. Sekscenski, "Workers on long schedules, single and multiple jobholders," *Monthly Labor Review*, May 1982, pp. 47–53.

¹⁷Richard Perlman, *Labor Theory* (New York, John Wiley & Sons, Inc., 1969).

¹⁸Robert P. Quinn and Graham L. Staines, *The 1977 Quality of Employment Survey* (Ann Arbor, University of Michigan, Institute for Social Research, 1979).

¹⁹*Characteristics of Major Collective Bargaining Agreements, January 1, 1980*, Bulletin 2095 (Bureau of Labor Statistics, 1981). An American Arbitration Association study in the 1960's reported that employee claims that they were not given their rightful share of overtime ranked fourth as a cause of grievance, after discipline, seniority, and job content. See Sar A. Levitan and Richard S. Belous, *Shorter Hours, Shorter Weeks: Spreading the Work to Reduce Unemployment* (Baltimore, The Johns Hopkins University Press, 1977).

²⁰The marginal rate for a reduction in hours was considered to be the hourly rate for regular hours. This rate was obtained by the questions: "Do you have an hourly wage rate for your regular work time?" The marginal rate for overtime was obtained by two questions "if you were to work more hours than usual during some weeks, would you get paid for those extra hours?" (If yes) "What would be your hourly rate for that overtime?" Jonathan Dickinson, "Labor Supply of Family Members," in James N. Morgan and others, eds., *Five Thousand American Families: Patterns of Economic Progress, Vol. 1* (Ann Arbor, University of Michigan, Institute for Social Research, 1974).

²¹Edward Kalachek, "Workers and the Hours Decision," in Robert L. Clark, ed., *Work Time and Employment* (Washington, National Commission for Manpower Policy, 1978), pp. 175–97.

²²Some multiple jobholders work less than a full-time workweek (defined as 35 hours or more). The hours distribution of multiple jobholders in May 1980 was as follows: 1–34 hours, 15 percent; 35–40 hours, 9 percent; 41 hours or more, 76 percent.

²³Paul E. Mott, "Hours of Work and Moonlighting," in Clyde E. Dankert, Floyd C. Mann, and Herbert R. Northrup, eds., *Hours of Work* (New York, Harper and Row, 1965); Perlman, *Labor Theory*; and Nand K. Tandan, *Workers with Long Hours*, Special Labour Force Studies, Series A, Statistics No. 9 (Ottawa, Canada, Information Canada, 1972).

²⁴Edward S. Sekscenski, "Women's share of moonlighting nearly doubles during 1969–79," *Monthly Labor Review*, May 1980, pp. 36–39.

²⁵Perlman, *Labor Theory*.

²⁶Mott, "Hours of work and moonlighting."

²⁷Sekscenski, "Women's share of moonlighting."

²⁸Kalachek, "Workers and the Hours Decision."

²⁹The Bureau's area wage survey program covers selected plant and office occupations in firms located in metropolitan areas and employing a

minimum of 100 workers. Scheduled hours are the weekly hours which a majority of the full-time, day-shift employees in a firm are expected to work, whether they are paid straight-time or overtime rates.

Major collective bargaining agreements are defined as those covering 1,000 workers or more.

³⁰ Kalachek, "Workers and the Hours Decision."

³¹ In January 1981, 3.2 years was the average (median) length of time on the current job. See Francis W. Horvath, "Job tenure of workers in January 1981," *Monthly Labor Review*, September 1982, pp. 34-36.

³² John Zalusky, "Shorter Hours—The Steady Gain," *AFL-CIO American Federationist*, January 1978.

³³ Howard Young, "Jobs, Technology, and the Hours of Labor: The Future of Work in the U.S.," *Hearings of the Joint Economic Committee's Special Study on Economic Change*, Washington, D.C. June 14, 1978.

³⁴ See for example, the AFL-CIO platform proposals presented to the 1980 Democratic and Republican national conventions.

³⁵ John Zalusky, "Vacations and Holidays: Tools in Cutting Work Time," *AFL-CIO American Federationist*, February 1977.

³⁶ Young, "Jobs, Technology and the Hours of Labor."

³⁷ See George Ruben, "Collective bargaining in 1982: results dictated by the economy," *Monthly Labor Review*, January 1983, pp. 28-37.

³⁸ Hours data for 1979 are used predominately in this article to avoid the effects of the subsequent economic downturn. Figures are for nonagricultural wage and salary workers in May (the traditional month for hours analysis) unless specified otherwise. The weekly hours cited here are annual averages for the civilian economy as a whole.

³⁹ John D. Owen, "Workweeks and leisure: an analysis of trends, 1948-75," *Monthly Labor Review*, August 1976, pp. 3-8.

⁴⁰ Thomas J. Kniesner, "The Full-Time Workweek in the United States, 1900-1970," *Industrial and Labor Relations Review*, October 1976, pp. 3-15.

⁴¹ Median years of service declined from 3.8 years in 1968 to 3.2 years in 1981.

⁴² Bureau of National Affairs, *Work Scheduling Policies, Personnel Policies Forum Survey* 118 (Washington, Bureau of National Affairs, August 1977).

⁴³ Stafford and Duncan, *The Use of Time*.

⁴⁴ Quinn and Staines, *The 1977 Quality of Employment Survey*.

⁴⁵ As cited by John H. Pencavel, "Work Effort, On-the-Job Screening, and Alternative Methods of Remuneration," in Ronald G. Ehrenberg, ed., *Research in Labor Economics, Vol. 1* (Greenwich, Conn., JAI Press, 1977), pp. 225-58.

⁴⁶ Stafford and Duncan, *The Use of Time*.

⁴⁷ Quinn and Staines, *The 1977 Quality of Employment Survey*.

⁴⁸ Fred Best, *Exchanging Earnings for Leisure: Findings of an Exploratory National Survey on Work Time Preferences*, R&D Monograph 79 (Washington, Superintendent of Documents, 1980).

⁴⁹ Dickinson, "Labor Supply of Family Members."

⁵⁰ Best, *Exchanging Earnings for Leisure*. In support of the validity of the attitudinal data, the author cites a case in which workers chose to sacrifice some earnings for fewer hours.

⁵¹ Robert W. Bednarzik, Marilynn Hewson, and Michael A. Urquhart, "The employment situation in 1981: new recession takes its toll," *Monthly Labor Review*, March 1982, pp. 3-14.

⁵² Howard Hayghe, "Husbands and wives as earners: an analysis of family data," *Monthly Labor Review*, February 1981, pp. 46-53.

⁵³ John P. Robinson, *Changes in Americans' Use of Time: 1965-1975: A Progress Report* (Cleveland, Ohio, Cleveland State University, 1977).

⁵⁴ Janice Neipert Hedges, and Daniel E. Taylor, "Recent trends in work-time: hours edge downward," *Monthly Labor Review*, March 1980, pp. 3-11.

⁵⁵ Robinson, *Changes in Americans' Use of Time*.

⁵⁶ Mellor and Stamas, "Usual Weekly earnings."

⁵⁷ Stafford and Duncan, *The Use of Time*.

⁵⁸ Anne McDougall Young, "School and work among youth during the 1970's," *Monthly Labor Review*, September 1980, pp. 44-47.

⁵⁹ Ellen Greenberger and Laurence D. Steinberg, *Part-time Employment of In-School Youth: An Assessment of Costs and Benefits* (Washington, U.S. Department of Education, 1981); and Shelia Cole, "Send Our Children to Work?" *Psychology Today*, July 1980, pp. 44-68.

⁶⁰ National Association of Secondary School Principals' resolutions for the consideration of its members at the 1983 convention in Dallas, Tex.

Helping ex-offenders enter the labor market

How beneficial are programs designed to improve employability and reduce recidivism? A review of research on various labor market strategies casts doubt on their effectiveness

FREDERICK ENGLANDER

In a 1972 *Monthly Labor Review* article, Robert Taggart reviewed labor market strategies directed at improving the employability and reducing the recidivism of offenders and ex-offenders.¹ The 10-year period following that investigation has been characterized by a continued commitment toward the manpower strategies that Taggart reviewed and the development of several new efforts aimed at facilitating the labor market readjustment of offenders. This article reviews the more recent research on labor market strategies for ex-offenders.

The labor market strategies discussed here by no means exhaust the rehabilitative approaches that have been applied to offenders. Among the less manpower oriented approaches not reviewed here are probation, a less restrictive prison environment, noninstitutional rehabilitation settings, intensive supervision of parolees, outright discharge in lieu of parole, individual counseling, group counseling, various medical therapies, and variations in the length of prison sentences. An analysis of each of these approaches found no consistent evidence to support the effectiveness of any one of them.²

There is a consensus that any labor market oriented program for ex-offenders faces significant barriers. The inmate population is generally conceded to be unskilled, poorly

educated, and disproportionately composed of minorities and bachelors. Table 1 supports these claims.³

Offenders often have other characteristics which make them unattractive to potential employers. A profile of male participants in a number of manpower projects for offenders yields the following characterization of them and of the offender population in general. The typical male project participant:⁴

- Comes from an area characterized by a high crime rate and high residential mobility.
- Emerges from a "female-based" household harboring feelings of hostile dependency toward his parents.
- Is a drop-out or push-out from high school.
- Spends free time "hanging around."
- Forms superficial peer group relationships.
- Lacks "middle-class" goals, aspirations, and values.
- Is untrained, unskilled, and with no career potential.
- Has a history of crime which started during the early teens.
- Has a low self-concept and no self-confidence.
- Has been socialized into a culture of failure.

In addition, because ex-offenders are perceived to be security risks, employers avoid hiring them. Released inmates often face labor markets resistance to their employment, such as government service and many licensed occupations.⁵

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Education and training

The labor market oriented rehabilitation approach that has been most widely applied, in many variations, is to increase the human capital of inmates through prison education and training programs.

Evaluations of the education and training programs have been found to lack sophistication, validity, quality, and effectiveness.⁶ However, there are several isolated examples of rigorously performed evaluations conducted in the past decade. In 1977, correctional administrators in the province of Ontario, Canada, conducted a comparative study of 781 released ex-offenders who completed their confinement in either an adult training center facility offering a full-time educational program with both academic and vocational training components or a correctional center facility having the normal mix of prison work and community work project assignments. The recidivism data collected through 1979 demonstrated no significant difference in the recidivism rates between the two groups.⁷

A 1977 Pennsylvania study included a 5- to 6-month follow-up of 128 released offenders (45 from adult basic education or general education programs, 35 from vocational education, 13 from post-secondary education, and a control group of 35). The study was designed to determine the impact of program participation on employment status, parole violation, recidivism, and general social adjustment. Except for the result that the small group of participants had a better performance in the parole violation and recidivism index, no significant differences between the program participants and control group were found for any of the outcome measures.⁸

The failure of education and training programs to facilitate the post-release adjustment of offenders has been explained by various analysts⁹ as attributable to:

- Low administrative priority allocated to these programs relative to security needs and the overall management and scheduling of the inmate population.
- Considerable turnover in inmate population.
- Outdated equipment.
- Limited supplies of practice materials.
- A competition for amenable inmates for other prison programs.
- Program coordination and standardization.
- A selection of skill modules which is not sensitive to the external labor market.
- Poor instructional staff.
- A general lack of program accountability and evaluation.

It may be noted that these potential problems in providing education and training may not be entirely responsible for the failure of these programs in facilitating offender post-release adjustment. Research has been undertaken to evaluate the importance of preincarceration formal education on the ex-offender's initial wage rate after release and his work stability after release. These studies did not find education to be a significant determinant of labor market success, as measured by initial wage or by work stability.¹⁰

The often indelible stigma of being an ex-offender and inadequate labor market experience may confine the vast majority of released ex-offenders to what has been defined as the "secondary" labor market.¹¹ Jobs in the secondary labor market are characterized by "low wages and fringe benefits, poor working conditions, high labor turnover, little chance of advancement, and often arbitrary and capricious supervision." It has been argued that once a worker has been consigned to the secondary labor market, his experiences there reinforce his undesirability as a candidate for a more attractive job.¹²

In the face of this situation, there may be very little that inmate education or vocational training can do to vault the ex-offender into an environment where high wages and a stable work pattern are probable and a return to criminal activity may be avoided.

Work release

A work-release program provides an alternate approach to dealing with the problem of providing labor market skills as well as inculcating good work habits and providing ex-offenders with money to facilitate their immediate post-release adjustment.

Ann Witte examined the post-release labor market experience and the post-release criminal activities of 641 released ex-offenders from North Carolina institutions in 1969 and 1971. She concluded that participants in the work-release program had higher wages, lower unemployment rates, more stable work patterns, and less serious criminal activity

Table 1. Characteristics of male inmates of State and Federal prisons

Characteristic	1950	1960	1970
Total male prison population (in thousands)	174,300	217,806	192,118
Percent under age 25	27.9	27.6	34.3
Percent nonwhite	34.5	37.7	42.0
Nonwhites as percentage of total male U.S. population	10.2	11.2	12.3
Median education in years:			
Male prisoners, 25 and older	8.1	8.6	9.8
Other males, 25 and older	9.0	10.4	11.9
Percent with high school education:			
Male prisoners, 25 and older	9.7	15.2	24.6
Other males, 25 and older	31.5	38.1	40.0
Percent skilled or semiskilled (last occupation):			
Male prisoners, 14 and older	(¹)	38.7	44.2
Other males, 14 and older	78.5	79.6	80.7
Percent married:			
Male prisoners, 14 and older	38.6	39.5	34.5
Other males, 14 and older	67.6	68.7	64.2

¹Data not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census. This table originally appeared in Philip Cook, "The Correctional Carrot: Better Jobs for Parolees," *Policy Analysis*, Winter 1975, p. 17.

than a comparison group that did not participate. Witte also cited a successful California work-release program as further evidence of the efficacy of this strategy.¹³ However, when Witte and Pamela Reid used the same North Carolina data base to construct a regression model, which may improve control for differences among individuals, they found that initial post-release wages and work stability were not significantly affected by whether the individual had participated in the work-release program.¹⁴ Another regression study by Peter Schmidt and Witte examining ex-offenders in North Carolina who were released in 1975 found that participation in work release was not related to recidivism, as measured by the length of time from release to reincarceration.¹⁵

In 1982, a review of 40 evaluations of work-release programs found an inverse relationship between work-release evaluations claiming success for that strategy and the methodological quality of the evaluations. The most methodologically rigorous studies demonstrated the most negative results.¹⁶ Finally, isolated prison locations and poor transportation often preclude a work-release program. Even when logistically practical, the prison staff is often unenthusiastic because of security problems.¹⁷

Intensive job placement services

Another labor market oriented strategy that has been used to facilitate the readjustment process for ex-offenders is a special job placement service. The first several months following release are crucial for the ex-offender. The provision of intensive job placement services may be expected to increase the probability of situating the ex-offender in a more suitable and satisfying job which, in turn, would raise the opportunity cost of returning to criminal activities.

In a controlled experiment conducted in Michigan during 1973 and 1974, the experimental group was assigned to employer contact specialists who provided ex-offenders with preemployment counseling, evaluations, job development, and follow-up service once they became employed.¹⁸ The treatment was not found to have a statistically significant impact on days employed, hours worked, gross earnings, or take home pay of participants.

One of the most important controlled experiments performed in recent years is the Living Insurance for Ex-Offenders (LIFE) experiment carried out in the Baltimore area between 1971 and 1974. Although the primary ingredient of the program was the provision of financial aid to the participants, a secondary ingredient involved the provision of extensive job placement services.¹⁹ A 1-year follow-up revealed that the job placement component had no significant lasting impact on employment²⁰ or arrest rates.²¹

Another recent income maintenance experiment that contained a job placement component was the Transactional Aid Research Project (TARP) carried out in Georgia and Texas during 1976. Two hundred experimental group members in each State received job placement assistance upon release and were allowed grants for up to \$100 for the

purchase of tools, work clothes, or other work-related items. At the end of 1 year, the recipients of this job placement assistance were not found to be significantly different from the control group with respect to property-related arrests, offenses against persons, weeks employed, or earnings.²²

Community treatment centers

Another strategy to assist ex-offenders in their readjustment process is to channel inmates through community treatment centers or half-way houses. Such centers provide participants with individual and group counseling and with community contact. However, the primary goal of such centers is job placement. The evidence on the success of the community treatment centers is mixed. One recent study involving a 1-year follow-up of center participants in 1978 found that the treatment group experienced more employment than a comparison group. The average daily wages were increased for minority but not for white participants. The program was found to reduce recidivism for minority members, but not for white participants.²³ However, a similar study of those placed in centers in 1976 found that, after 1 year, there was no significant difference between the experimental group and the comparison group with respect to days of employment or money earned when the data were adjusted to exclude the unemployment experienced by students, retired persons, housewives, or the physically disabled. Moreover, the program was found to have no significant impact on recidivism, as measured by arrest rates or severity of offenses.²⁴ In a study of 262 community treatment center participants and 1,544 nonparticipants who were released in early 1970, a 6-year follow-up revealed no significant differences between the two groups in recidivism after controlling for the individual characteristics of the released ex-offenders.²⁵

Supported work

Perhaps the most carefully planned, well-monitored, and well-funded experiment affecting ex-offenders of the last decade is the "supported work program" carried out from 1974 to 1978. The concept of supported work was stimulated by the apparent success of two similar experiments of the early 1970's. Operation Pathfinder treated 173 youthful parolees by placing them in semi-skilled jobs with trained supervisors offering strong, positive, verbal reinforcement for all improvements in the participants' job performance. The experimental group experienced greater probability of employment and longer job tenure relative to the control group.²⁶

A supported work environment, featuring peer pressure and reinforcement, was also applied to an experimental group of ex-drug addicts in Project Wildcat. Participants were found to have higher employment and earnings levels and lower recidivism rates over the first 2 years of follow-up. However, the labor market advantages of the experimental group relative to the control group diminished over the 3-

year follow-up. With respect to criminal activity, the experimental group was more likely to be arrested than the control group in the third year of follow-up. Moreover, there was no apparent difference between the two groups in drug or alcohol use during any part of the follow-up period.²⁷

Sponsors of the supported work program believe that it would provide ex-offenders with the opportunity to work among peers, to receive gradually increased job performance standards (graduated stress), and to obtain qualified supervision from people who understand their problems and concerns. Despite high expectations for the program, the results were discouraging. With respect to employment, hours worked, earnings, Aid to Families with Dependent Children payments, and food stamp benefits, there was an initial impact for the first 18 months following enrollment. However, for the 19- to 36-month follow-up period, there was no significant difference between the treatment group and the control group. Also, the supported work program appeared to have no significant impact at all on the arrest and conviction rates of the treatment group. It should be noted that one prominent explanation accounting for these poor results is that within the 6-month period following enrollment, the majority of the treatment group withdrew from the program complaining about work rules and low pay.²⁸

Financial assistance

Another strategy that has recently been the subject of experimentation is the provision of direct financial assistance to released convicts. Newly released ex-offenders, suddenly forced to pay for their own food, shelter, and clothing are more likely to steal, but if they are given financial assistance or employment they may become less likely to steal.²⁹ The provision of such payments may relieve the immediate financial pressure such that released ex-offenders would have a greater opportunity to engage in a longer search for a more satisfying and monetarily rewarding job.

Early experimentation with this approach was performed in California and Connecticut. California's Direct Financial Assistance to Parolees Project randomly assigned 135 male offenders paroled in 1972 to an experimental group that received weekly payments of up to \$80 for a period of 1 to 12 weeks. Their experiences were compared to those of a randomly selected control group of 118 offenders paroled in the same time period. Although 80 percent of the experimental group successfully remained on parole over a 6-month follow-up period, compared with 71 percent for the control group, subsequent calculations demonstrated that the difference was not statistically significant.³⁰

The Connecticut project designated as the experimental group the 45 men released from the State's two major correctional institutions in early 1973. Each of these ex-offenders received a total of \$470 over an 8-week period. The two comparison groups, selected from the same facilities,

were the 45 men released just prior to the experimental group and the 45 men released immediately subsequent to the experimental group. A 12-month follow-up revealed no significant differences between those receiving financial assistance and the two comparison groups with respect to frequency and nature of parole violations, arrest records, parole officers' assessments, and employment.³¹

From 1971 to 1974, the Living Insurance for Ex-Offenders experiment was performed for a group of released property crime offenders with an above average risk of rearrest. Two hundred and sixteen participants were provided a \$60 per week stipend for 13 weeks. Income earned by participants would reduce the immediate stipend level, but the total \$780 could then be spaced over a longer time horizon. Those receiving financial aid were significantly less likely to be arrested for theft than the control group (22 percent versus 30.5 percent in the first year following release). There was no significant difference in the arrest rates for other crimes. Among those arrested, the experimental group was, on average, arrested 7 weeks later than the control group. The 26-percent conviction rate of the experimental group was significantly less than the 32-percent conviction rate for the control group. There was a 7.9-percent lower arrest rate among the experimental group in the second year following release. With respect to employment experience, by the 17th week following release, the two groups had equal employment rates. After the 24th week, the experimental groups had a higher employment rate than the control group.³²

The success of the Living Insurance for Ex-Offenders experiment provided an impetus for the aforementioned Transactional Aid Research Project experiment carried out during 1976 and 1977 in Georgia and Texas. Experimental groups of randomly selected participants were established in each State. They were made eligible for unemployment insurance payments for either 13 or 26 weeks. Although some of these ex-offenders' benefits would be reduced by only 25 percent for a given level of earned income, most of them saw their earned income reduce their financial assistance on a dollar-for-dollar basis. Those facing the 25-percent marginal tax rate did not understand this condition and thus believed they were subject to the same work disincentive as the other experimental groups. Through the 1-year follow-up period, there was no significant difference in the property crime or other criminal arrests between the experimental and control groups. The high marginal tax rate on assistance payments resulting from earned income did exert a strong work disincentive effect on the experimental group who worked fewer weeks than the control group, but had roughly the same earnings level.

In their interpretation of these disappointing results, Peter Rossi, Richard Berk, and Kenneth Lenihan, developed a complex econometric model suggesting a rather complicated set of relationships among Transactional Aid Research Project payments, employment, leisure, and property arrests.

This model supported the view that the Transactional Aid Research Project payments, everything else held constant, reduced property arrests by 25 to 50 percent. However, this effect was offset by the fact that the work disincentives implicit in the program provided additional leisure time to plan and carry out crimes. However, the inability to test this model on additional data sets leaves its conclusions somewhat equivocal.³³

Researchers have argued that financial assistance programs should be structured to avoid the increase in leisure time resulting from the high marginal tax rate on earnings.³⁴ However, to the extent that the stipends afford released offenders an opportunity to postpone reentrance into the labor market, irrespective of the level of the marginal tax rate, the ex-offender may use his assistance to purchase more leisure time which in turn can be used to plan and carry out crimes. In the parlance of the labor economist, reducing the marginal tax rate would reduce the substitution effect which prods the ex-offender toward leisure. But the stipend itself still produces an income effect which influences the ex-offender to take more leisure time.

In sum, although there have been positive results forthcoming from the financial assistance strategy, the evidence is still mixed.

IN THE PAST 10 YEARS, there has been expansion of, and experimentation with, various labor market strategies for rehabilitating ex-offenders. For the work-release, half-way house, supported work, and financial assistance strategies, successful experiments have been isolated and efforts to replicate them have generally failed. Experience with intensive job placement services has been especially disappointing. Taggart's 1972 complaint that "there is little comprehensive information about the effectiveness of prison education or training programs"³⁵ has been echoed often, but to no avail. It may be argued that administrators who have devised, implemented, or operated genuinely effective programs are seldom remiss in informing others of their achievements. The scattered available evidence on the effectiveness of prison employment and training programs does not support the efficacy of these efforts.

Although it may still be premature to make such a judgment, it seems appropriate to ask whether some of the dollars currently spent on facilitating the labor market adjustment of offenders could be better applied to increasing the education and training of those young people with the least access to these services. Such efforts may well produce a greater return in reducing criminal activity and increasing the development and potential of our human resources. □

—FOOTNOTES—

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¹Robert Taggart, "Manpower programs for criminal offenders," *Monthly Labor Review*, August 1972, pp. 17-23. This effort represented a synopsis of his volume, *The Prison of Unemployment: Manpower Programs for Offenders* (Baltimore, Md., The Johns Hopkins University Press, 1972).

²See Philip Cook, "The Correctional Carrot: Better Jobs for Parolees," *Policy Analysis*, Winter 1975, pp. 11-54; James Robison and Gerald Smith, "The Effectiveness of Correctional Programs," *Crime and Delinquency*, January 1971, pp. 67-80; Robert Martinson, "What Works?—Questions and Answers About Prison Reform," *The Public Interest*, Spring 1974, pp. 22-54; and Douglas Lipton, Robert Martinson, and Judith Wilks, *The Effectiveness of Correctional Treatment* (New York, Praeger Publishers, 1975).

³Table 1 was taken from Philip Cook, "The Correctional Carrot."

⁴Roberta Rovner-Piecznik, *A Review of Manpower R&D Projects in the Correctional Field* (U.S. Department of Labor, Manpower Administration, 1973).

⁵Mitchell Dale, "Barriers to the Rehabilitation of Ex-offenders," *Crime and Delinquency*, July 1976, pp. 322-337.

⁶For a review of education and training research evaluation, see Robert Martinson, "What Works?"; Raymond Ball and others, *Correctional Education Programs for Inmates* (U.S. Department of Justice, National Institute of Law Enforcement and Criminal Justice, June 1979); *Correctional Institutions Can Do More To Improve the Employability of Offenders* (General Accounting Office, February 1979); and John Conrad, *Adult Offender Education Programs* (U.S. Department of Justice, National Institute of Justice, 1981).

⁷Sally Rogers, *An Examination of Adult Training Centers in Ontario—Community Follow-Up* (Province of Ontario, Ministry of Correctional Services, June 1980).

⁸John Buttram and Russell Dusewicz, *Effectiveness of Educational Programs in State Correctional Institutions: A Follow-Up Study of Ex-Offenders, Final Report* (Philadelphia, Pa., Research for Better Schools, September 1977).

⁹Norman Holt, "Problems and Prospects of Vocational Training in a Prison Setting," in Leon Leiber, ed., *Crime and Employment Issues* (U.S. Department of Labor, Employment and Training Administration, 1978); James Beck, "Evaluating Prison Programs Designed to Increase the Employability of Federal Offenders: A Review of the Literature" (Washington, U.S. Bureau of Prisons, 1978); General Accounting Office, *Correctional Institutions*; and Raymond Ball and others, *Correctional Education*.

¹⁰Einar Hardin, "Human Capital and the Labor Market Success of New Parolees," *1979 Proceedings of the Business and Economic Statistics Section* (Washington, American Statistical Association, 1975); and Ann Witte and Pamela Reid, "An Exploration of the Determinants of Labor Market Performance of Prison Releases," *Journal of Urban Economics*, August 1980, pp. 313-329.

¹¹See Ann Witte and Pamela Reid, "An Exploration."

¹²Peter Doeringer and Michael Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, Mass., D.C. Heath & Co., 1971).

¹³Ann Witte, "Earnings and jobs of ex-offenders: a case study," *Monthly Labor Review*, December 1976, pp. 31-39; Ann Witte, "Work Release in North Carolina—A Program That Works!" *Law and Contemporary Problems*, Winter 1977, pp. 230-237.

¹⁴Ann Witte and Pamela Reid, "An Exploration."

¹⁵Peter Schmidt and Ann Witte, "Evaluating Correctional Programs: Models of Criminal Recidivism and An Illustration of Their Use," *Evaluation Review*, October 1980, pp. 585-600; and Robert Jeffrey and Stephen Woolpert, "Work Furlough as an Alternative to Incarceration," *The Journal of Criminology*, Vol. 65, No. 3, 1974, pp. 405-415.

¹⁶Jonathan Katz and Scott Decker, "An Analysis of Work Release," *Criminal Justice and Behavior*, June 1982, pp. 229-250.

¹⁷Robert Taggart, *The Prison of Unemployment*.

¹⁸Michael Borus, Einer Hardin, and Patterson Terry, "Job Placement Services for Ex-Offenders: An Evaluation of the Michigan Comprehensive Offender Manpower Program (COMP) Job Placement Efforts," *Journal of Human Resources*, Spring 1976, pp. 391-401.

¹⁹Kenneth Lenihan, *Unlocking the Second Gate*, R&D Monograph 45 (U.S. Department of Labor, Employment and Training Administration, 1978).

²⁰Lenihan, *Unlocking the Second Gate*.

²¹Charles Maller and Craig Thornton, "Transitional Aid for Released Offenders: Evidence from the Life Experiment," *Journal of Human Resources*, Spring 1978, pp. 208-236.

²²Peter Rossi, Richard Berk, and Kenneth Lenihan, *Money, Work, and Crime: Experimental Evidence* (New York, Academic Press, 1980).

²³James Beck, "Employment, Community Treatment Center Placement and Recidivism: A Study of Released Federal Offenders," *Federal Probation*, December 1981, pp. 3-8.

²⁴James Beck, "An Evaluation of Federal Community Treatment Centers," *Federal Probation*, September 1979, pp. 36-40.

²⁵Harriet Lebowitz, *Evaluating The Effect of Federal Community Treat-*

ment Centers on Recidivism: A Six Year Follow-Up (Washington, U.S. Department of Justice, Federal Prison System, August 1980).

²⁶Philip Cook, "The Correctional Carrot."

²⁷Irvington Piliavin and Rosemary Gartner, *The Impact of Supported Work on Ex-Offenders* (Madison, Wisc., University of Wisconsin, Institute for Research on Poverty, 1981).

²⁸Piliavin and Gartner, *Impact of Supported Work*.

²⁹Lenihan, *Unlocking the Second Gate*.

³⁰Scientific Analysis Corporation, *Direct Financial Aid to Parolees Project Research Evaluation* (San Francisco, Calif., Department of Corrections, 1973); and Malcolm Feeley, *The Effects of Increased Gate Money: Final on the Parolee Reintegration Project* (Hartford, Conn., Department of Corrections, 1974).

³¹Malcolm Feeley, *The Effects of Increased Gate Money*.

³²Lenihan, *Unlocking the Second Gate*.

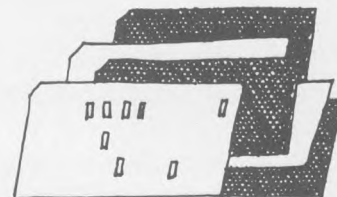
³³Rossi and others, *Money, Work, and Crime*.

³⁴Rossi and others, *Money, Work and Crime*.

³⁵Taggart, "Manpower Programs."

A note on communications

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



Effects of selected variables on work hours of young women

DAVID SHAPIRO AND FRANK L. MOTT

A young woman's twenties are extremely significant in her life cycle: typically, schooling will have ended, and work careers, marriage, and family formation are all likely to begin. As part of an examination of the continuing increase in work attachment of young women, we analyzed the labor supply of respondents to the National Longitudinal Surveys of Young Women during two 5-year periods between 1968 and 1978—1968–73 and 1973–78.¹ Beginning with respondents age 20 to 24 in 1968, we examined hours worked during 1968–73; and for those age 20 to 24 in 1973, we examined hours worked during 1973–78. In each case, hours of work are viewed as dependent upon schooling, marriage, and childbearing activities, as well as on some additional control variables.

Important changes in the characteristics that influence the labor supply behavior of young women in their twenties took place during the 1970's. Relative to earlier cohorts, more recent cohorts of young women have more schooling, are marrying and beginning to have children later, and are having fewer children. All of these changes contribute to greater work activity on the part of young women. At the same time, changes in attitudes toward women who work and in young women's expectations of future work activity² have resulted in increased work activity among women of given characteristics. Both changing characteristics and changing behavior have thus contributed to the continuing increase in work attachment of young women, and this analysis emphasizes the importance of each of these types of changes in accounting for the observed increase in labor supply.

In addition, we seek to determine the extent to which changing behavior is associated with specific factors. For

example, consideration of the secular trend in labor force participation rates of young mothers suggests that the inhibiting effect of young children on female labor supply has been smaller in more recent years than in earlier years.³ Similarly, the impact on labor supply of variations in wages or educational attainment may have changed over the 1970's.⁴ The multivariate estimates of the determinants of hours of work among women in their twenties for the two periods 1968–73 and 1973–78 allow us to ascertain the nature of changes in the impacts of specific factors on labor supply.

Empirical specification

Conventional one-period labor supply equations are based on the notion from labor supply theory that a woman's labor market activity will depend on a comparison of her market wage with her shadow price of time (the value the household attaches to the wife's nonmarket time).⁵ Factors augmenting the market wage will be positively associated with labor supply, while factors increasing the shadow price of time will be inversely related to labor supply. Theoretical considerations and previous empirical studies suggest that hours of work will be positively related to educational attainment and age—two important determinants of the market wage. Similarly, enrollment in school, the presence of a husband, higher husband's earnings, and the presence of preschool children in the home all contribute to a higher value of a woman's time in nonmarket activities and, hence, are expected to result in fewer hours worked, other things equal. Additionally, individuals with health problems that limit the amount or kind of work they can do, those who have migrated from another area, and those residing in areas with high unemployment rates are all expected to work fewer hours, other things equal.

A complicating factor here is that we are considering labor supply over a 5-year period, during which many of the important determinants of labor supply (for example, fertility, marital, and school enrollment status) are likely to change. Thus, there will be variation in labor supply not only between women who had young children at home during the interval and those who did not, but also among women with children at home—because for some women, children will have been present for the entire interval, while for others, children will have been present for, say, only 1 of the 5 years. Hence, for fertility status, marital status, and

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school enrollment status, we need to know how many years an individual had young children at home, was married, or was enrolled in school. Because only 3 years of data were available for the 1973-78 period,⁶ these variables are expressed as ratios indicating the proportion of years during which the respondent was characterized by a particular status.

The results

Mean values of the variables for young women age 20-24 at the outset of the 1968-73 and 1973-78 periods are shown separately by race and by presence of young children in table 1 for all respondents. The data confirm what was suggested earlier: those in the more recent cohort were more likely to have been in school and have greater educational attainment, and less likely to have been married or have children.⁷ These differences are distinctly sharper among blacks than among whites. A major difference between the two periods was in labor market conditions: average unemployment rates were more than 2 percentage points higher during the 1973-78 period than during the 1968-73 period.

Hours of work were higher in the later period by nearly 17 percent among whites and by 13 percent among blacks. Hours of work increased 30 percent for the white mothers, compared with 13 percent for the nonmothers. Proportionately greater increases in hours worked among mothers are also apparent among blacks: average hours worked increased by 19 percent for black mothers, but by only about 5 percent for black nonmothers.⁸

Hours worked equations were estimated separately for whites and blacks and, within each race group, the samples were further stratified according to whether there was a preschool child at home at any time during the 5-year period. The effects of the explanatory variables on hours of work for young women are shown in table 2. Almost all of the

estimated coefficients for whites had the expected signs, and most of the coefficients are statistically significant. Educational attainment, husband's earnings, and fertility status are the most important determinants of hours worked.⁹ The equations for blacks, while based on distinctly fewer numbers of cases, also have coefficients whose signs largely conform to our *a priori* expectations and that are frequently significant. Educational attainment and fertility status are key determinants of hours worked among blacks. Health status of mothers and school attendance among nonmothers are also significant influences on labor supply of blacks throughout the decade.

There is evidence of changing behavior for women with given socioeconomic or demographic characteristics. Contrary to our expectations, no significant change appears in the impact of young children on hours of work.¹⁰ Among whites, for both mothers and nonmothers, being married and husband's earnings had significantly smaller inhibiting effects on a wife's labor supply during the 1973-78 period. The impact of educational attainment on hours worked also changed significantly for both groups, but in opposite directions: among those who were not mothers, schooling was less strongly related to hours worked in the later period, but among mothers, the coefficient was almost twice as large for 1973-78 as it was for 1968-73.

Among blacks, the comparison across periods of the effects of particular factors on hours worked yields results that are similar to those for whites. No significant change appears in the impact of young children on hours of work, but differences in educational attainment became less important among nonmothers (significantly so) and more important among mothers. In addition, among nonmothers, the negative impact of husband's earnings on hours worked during the early period had disappeared by the end of the later period.

Table 1. Mean values of variables for 20- to 24-year-old women, by race and presence of young children

Variable	White						Black					
	Total		No preschooler present		Preschooler present		Total		No preschooler present		Preschooler present	
	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78
Estimated hours worked	4,987	5,833	6,426	7,241	2,973	3,851	5,192	5,860	6,489	6,846	4,459	5,307
Educational attainment	12.7	12.9	13.5	13.8	11.5	11.7	11.2	12.0	12.0	12.7	10.7	11.6
Age	24.3	25.1	23.9	24.9	24.7	25.4	24.2	25.0	24.0	24.8	24.4	25.1
Proportion of period enrolled in school	.069	.113	.106	.163	.019	.042	.043	.106	.070	.135	.028	.091
Proportion of years in period married, spouse present	.741	.700	.628	.613	.901	.823	.551	.447	.380	.352	.647	.501
Proportion of years married times husband's average earnings (thousands)	10.3	9.7	8.5	8.4	12.7	11.6	5.0	4.8	3.8	3.7	5.6	5.4
Proportion of period with preschooler at home	.347	.333	0	0	.832	.801	.532	.468	0	0	.833	.731
Health problem which limited amount or kind of work	.179	.143	.157	.129	.211	.164	.217	.161	.220	.133	.215	.176
Migration across county lines during period	.473	.427	.565	.472	.343	.363	.289	.224	.370	.271	.243	.198
Average unemployment in area	5.2	7.3	5.2	7.3	5.3	7.3	5.3	7.6	5.1	7.4	5.4	7.7
Sample size	931	1235	543	722	388	513	277	504	100	181	177	323

Table 2. Effects of variables on hours worked by 20- to 24-year-old women, by race and presence of young children

[t-statistics in parentheses]

Variable	White				Black			
	No preschooler present		Preschooler present		No preschooler present		Preschooler present	
	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78	1968-73	1973-78
Educational attainment	365.1 (5.30)	209.6 (3.69)	275.2 (2.94)	505.8 (5.43)	693.6 (5.65)	324.2 (3.49)	214.7 (1.77)	452.1 (4.34)
Age	226.4 (2.16)	133.3 (1.51)	27.5 (0.23)	149.8 (1.34)	300.2 (1.38)	413.8 (2.38)	-62.4 (-0.33)	111.0 (0.75)
Proportion of period enrolled in school	-2408.7 (-2.92)	-822.1 (-1.57)	799.2 (0.39)	357.8 (0.31)	-5843.9 (-3.57)	-2657.4 (-2.49)	3355.5 (1.28)	-1808.8 (-1.53)
Proportion of years married times husband's average earnings	-209.0 (-10.47)	-111.6 (-7.13)	-202.3 (-7.55)	-123.6 (-5.97)	-149.2 (-2.20)	4.9 (0.11)	-12.9 (-0.22)	-0.4 (-0.01)
Proportion of period with preschooler at home	—	—	-3038.2 (-3.85)	-2717.8 (-4.79)	—	—	-3255.9 (-2.60)	-3604.1 (-5.20)
Health problem which limited amount or type of work	-525.6 (-1.39)	-825.1 (-2.26)	-315.4 (-0.81)	-470.7 (-1.14)	-398.1 (-0.54)	-1209.3 (-1.64)	-2004.4 (-3.04)	-2302.9 (-4.36)
Migration across county lines during period	-1297.6 (-4.69)	-404.7 (-1.63)	212.6 (0.63)	-322.8 (-1.01)	-318.8 (-0.50)	-1274.7 (-2.33)	600.4 (0.96)	-739.5 (-1.44)
Average unemployment rate in area	96.3 (0.96)	-199.4 (-2.52)	4.8 (0.05)	-215.0 (-2.20)	-186.9 (-0.80)	-88.2 (-0.61)	-246.1 (-1.48)	-174.7 (-1.61)
Constant	-1560.9	3837.2	4170.3	-505.9	-6906.8	-6060.3	7984.0	1980.1
\bar{R}^2	.212	.090	.158	.146	.300	.130	.123	.168
F ratio	21.87	11.21	10.04	11.96	7.08	4.84	4.09	9.13
Sample size	543	722	388	513	100	181	177	323

Among both whites and blacks, then, there is a pattern of reduced impact on wife's labor supply of being married and husband's earnings, lesser effect of educational attainment among nonmothers, and greater effects of schooling among mothers. Several factors should be noted in this regard. Trends in divorce in the United States have sharply reduced the likelihood that young women will spend virtually all of their adult lives as married women. As increasing proportions of young women recognize that they may be required to support themselves as adults, their incentive to retain close ties to the labor market after marriage grows. From this perspective, then, trends toward greater marital instability should result in a weaker influence of marriage or of a husband's high earnings on a woman's labor supply.¹¹

The diverse changes in the impact of schooling on young women's hours of work reflect the fact that a major role of the schooling variable in the estimated labor-supply equations is to serve as a proxy for the market wage. Viewing educational attainment as a proxy for the wage implies that the labor supply of nonmothers is becoming more inelastic with respect to their wages, while labor supply of mothers is becoming more elastic. The lesser responsiveness to wages of hours of work of nonmothers means that women without children are behaving increasingly like men (whose labor supply is typically rather inelastic with respect to their wages). Among mothers, by contrast, traditional patterns of extensive withdrawal from the labor market associated with child-

bearing and child rearing are breaking down.¹² Hence, whereas in the past, the labor supply of young mothers was quite low and relatively insensitive to wage rates, the results here suggest that not only is the general level of labor supply of young mothers rising, but also the sensitivity (that is, responsiveness) to wages is rising. Thus, while there is an obvious trend toward greater work activity among mothers, it is the better-educated—that is, the high-wage—mothers who are leading the way. To the extent that schooling also proxies for important nonwage attributes of work (for example, more pleasant or more interesting jobs), the tendency for better-educated young mothers to work is further reinforced. This is particularly likely to be the case if (as seems plausible) governmental efforts during the past decade aimed at reducing labor market discrimination against women have been more successful in enhancing opportunities for better-educated women, compared with their lesser-educated counterparts.¹³ □

—FOOTNOTES—

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¹ The National Longitudinal Surveys of Young Women began in 1968,

covering a panel of more than 5,000 young women age 14–24 in 1968. By 1978, more than 75 percent of the original panel were still being interviewed. For further information, see *The National Longitudinal Surveys Handbook* (Columbus, Center for Human Resource Research, The Ohio State University, 1982). This paper is a condensed version of a longer report entitled, "Trends in the Employment of Young Women: Evidence from the National Longitudinal Surveys," which is available from the Center for Human Resource Research.

² See Frank L. Mott, "The Changing Roles of Women," in Frank L. Mott, ed., *The Employment Revolution* (Cambridge, MIT Press, 1982); David Shapiro and Joan E. Crowley, "Aspirations and Expectations of Youth in the United States, Part 2: Employment Activity," *Youth and Society* 14, September 1982, pp. 33–58; and Linda J. Waite, "Projecting Female Labor Force Participation from Sex Role Attitudes," in Ralph E. Smith, ed., *Women in the Labor Force in 1990* (Washington, The Urban Institute, 1979).

³ For documented research on how a woman's attitudes toward employment condition the likelihood of her being employed when she has small children, see Frank L. Mott, Anne Statham, and Nan L. Maxwell, "From Mother to Daughter: the Transmission of Work Behavior Patterns Across Generations," in Frank L. Mott, ed., *The Employment Revolution* (Cambridge, MIT Press, 1982).

⁴ Such an effect might be linked to governmental efforts aimed at reducing labor market discrimination against women. For example, see David Shapiro and Lois B. Shaw, "Growth in the Labor Force Attachment of Married Women: Accounting for Changes in the 1970's," *Southern Economic Journal* 50, forthcoming.

⁵ For example, see James J. Heckman, "Shadow Prices, Market Wages, and Labor Supply," *Econometrica* 42, July 1974, pp. 679–94.

⁶ While data are available from annual interviews to cover each year between 1968 and 1973, the less frequent schedule of interviews after 1973 resulted in gaps in the available work histories. In particular, for the period from 1973 to 1978, data are available only for 3 years (1974–75 and 1976–78). Consequently, not only were ratios used for certain variables (as described in the text), but in addition, estimated total hours worked over the 5-year period 1973–78 were calculated by multiplying hours worked during the three available years by 5/3 (so as to provide a 5-year measure comparable to that for the 1968–73 period).

⁷ Because the data for the 1973–78 period are drawn from interviews at the end of years 2, 4 and 5 rather than from all 5 years, the average age is higher for those in the 1973–78 period. This age difference biases somewhat the comparison of marital, fertility, and enrollment statuses, underestimating the changes in each of these variables. That is, had data been available for each year during the 1973–78 period, the average age and, consequently, the proportion of years married and proportion of years with children all would have been lower, while the proportion of years in school would have been higher. By the same token, the age difference serves to exaggerate slightly the change in educational attainment.

⁸ Data on the percentage of individuals within each race/fertility status group who did not work at all are consistent with the data on mean hours worked among whites. For the 1968–73 period, 27 percent of white mothers and 5 percent of white nonmothers did not work; the comparable figures for the 1973–78 period were 22 percent and 4 percent, respectively. Among blacks, by contrast, there were slight increases over time in the percentages of nonworkers: while 15 percent of mothers and 4 percent of nonmothers did not work during the 1968–73 period, the corresponding figures were 17 percent and 8 percent, respectively, for the 1973–78 period.

⁹ Chow tests confirmed that the sets of coefficients of the hours worked equations differ significantly by fertility status.

¹⁰ Statements about statistically significant changes in coefficients across periods are based on a formal statistical test for such changes in which a pooled equation with interaction terms was estimated for each fertility status group. In addition to the significant changes mentioned in the text, we also found that for the childless white women, there were statistically significant changes in the coefficients of the migration and unemployment variables, while for the black mothers the change in the coefficient of the enrollment variable is statistically significant.

This conclusion concerning the absence of a change in the effect of young children on work hours holds also in equations covering the total sample (that is, not stratifying by fertility status). One might argue that estimation of separate equations for mothers and nonmothers could mask

a reduction in the impact of young children on labor supply. However, it is clear from the equations in which mothers and nonmothers were pooled that there is no evidence of such a reduction, either among whites or among blacks.

¹¹ The evidence indicating that marital status/husband's earnings is less important among blacks than among whites is quite consistent with the argument here because, traditionally, marital instability has been higher among blacks.

¹² For evidence in this regard, see David Shapiro and Frank L. Mott, "Labor Supply Behavior of Prospective and New Mothers," *Demography*, May 1979, pp. 199–208; and Frank L. Mott and David Shapiro, "Complementarity of Work and Fertility Among Young American Mothers," *Population Studies* 37, July 1983.

¹³ It is important to note that, to a considerable degree, the increase in hours due to demographic changes was, for most of the groups in this analysis, counterbalanced by a depressing effect on hours worked due to the changing impact of areal unemployment between the two 5-year periods. If the economy had been as strong during 1973–78 as it had been during 1968–73, the trend in hours of work might well have been sharper and more dramatic than it actually was.

***NLRB v. Yeshiva University:* a positive perspective**

CLARENCE R. DEITSCH AND DAVID A. DILTS

*NLRB v. Yeshiva University*¹ may soon stand beside such other landmark U.S. Supreme Court decisions as *Loewe v. Lawlor*² and *United States v. Hucheson*³ both in terms of controversy provoked and the number of resulting learned articles written by labor relations scholars and practitioners. The articles have, for the most part, either focused upon the normative issues of whether the Court erred in its reasoning and why,⁴ or upon the closely related issue of the proper tack the National Labor Relations Board should have taken in its arguments before the Court.⁵ This report examines the *Yeshiva* decision from a positive perspective; the debate as to whether Justice Lewis Powell and the Court were right or wrong is put aside in order to analyze the impact of the decision upon union organization of private-sector institutions of higher education.

Union membership: a rational decision

Students of labor relations have long recognized that the secular behavior of trade union membership is influenced by a number of different variables, including the economic ones that determine the benefits and costs associated with union membership. Thus, an employee's decision to join a labor organization can be assumed to be rational and dependent "upon his subjective assessment of the expected benefits to be obtained from union membership as against

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his subjective assessment of expected costs of membership."⁶ In short, an employee generally will join a labor organization if the perceived benefits exceed the perceived costs.

Another way of viewing the foregoing decision is in terms of a choice between two bundles of goods: a nonunion bundle, consisting of those items available without union membership, and a union bundle, consisting of items available as a result of union membership. The union bundle will be selected if it contains more of one item and at least as many units of the other items as the nonunion bundle does. If selection of the union bundle containing additional units of one or more goods entails the sacrifice of units of the other goods making up the bundle, the decision (that is, choice) is no longer costless. Whether the substitution (that is, exchange) will be made hinges upon the relative subjective values placed upon the goods to be substituted. If what has to be given up is of greater value than what is received in trade, no exchange will occur; the individual will not become a union member.⁷

Faculty priorities and concerns

Bargaining topics in higher education may be classified into one of four categories: academic, faculty status (that is, personnel), economic, and other matters. Academic matters, according to John A. Gray, "include determinations of overall curriculum requirements, course mixes for majors, and academic admission. They relate directly to the educational process and educational opportunities that the institution exists to provide . . ."⁸ Decisions affecting academic matters therefore influence the nature of the product provided and the clientele (that is, market) served by institutions of higher learning. Faculty status matters encompass topics affecting the number and qualifications of teaching personnel—such items as initial appointment, reappointment, promotion, and tenure criteria—the usual personnel topics. Economic matters cover the traditional salary and fringe benefit areas. The final category, other matters, includes all issues, subjects, topics, and items not falling within the first three, for example, building usage, parking privileges, and so forth.

A long-recognized difference between blue-collar and professional employees is that the latter distinguish between professional and economic bargaining goals and attach greater priority to the former goals.⁹ Therefore, as professionals, faculty members also attach greater importance to professional concerns (to topics falling within the academic and faculty status bargaining categories noted above). Joseph W. Garbarino has noted that professional concerns are so important to educators that the impetus for organization and bargaining in higher education usually stems from a deep concern over professional matters rather than from a concern about economic issues.¹⁰ In short, the probability of unionism is greatest where faculty members believe professional prerogatives to be threatened.

A recent study undertaken by Sahab Dayal at Central Michigan University lends significant support to the conclusions of the preceding paragraph.¹¹ Dayal's objective was the examination of "the unionized faculty's perceptions of bargaining goals and their attitudes and opinions of bargaining priorities . . ."¹² Faculty members were presented an undifferentiated list of professional and economic bargaining issues and were asked to rank in priority order their top five bargaining concerns. Respondents ranked the professional issues of academic freedom first; hiring standards, fourth; and reappointment criteria, fifth. The economic issues of salary and inflation-based compensation were slotted second and third.¹³

Although Dayal's research indicates a high priority assigned by educators to professional concerns in collective bargaining, in all probability, the study underestimates the importance faculty members attach to these issues. Professional matters may be of greater concern than indicated by Dayal's survey because many faculty members may believe that collective bargaining is an inappropriate vehicle for the determination of professional issues. Having an alternative governance mechanism available for this purpose—"an academic senate in which faculty participation is required from each academic department"¹⁴—faculty members holding the aforementioned viewpoint may not have ranked professional issues as high priority *bargaining* items. Yet, denied an alternative governance mechanism, these same individuals may very well have given a high priority ranking to professional matters. Thus, the Central Michigan study tends to underestimate the importance of professional goals to faculty members. These results cannot be dismissed as unique to the Central Michigan University campus. As noted by Dayal: ". . . interviews with key officials of the National Education Association, American Federation of Teachers, and American Association of University Professors seem to indicate that this is widely representative of higher education faculty across campuses today."¹⁵ In addition, there is no reason to believe that faculty attitudes differ from public to private 4-year colleges and universities.

The Yeshiva decision

The Supreme Court's decision in *Yeshiva* established a two-pronged test for purposes of determining faculty status under Taft-Hartley: whether faculty members were simply professional employees entitled to the protective features of Federal labor law or whether they were also managerial employees and thereby excluded from Taft-Hartley. According to Powell and the Supreme Court majority, the determination was and is dependent upon two factors; the nature of faculty input to an institution's decisionmaking process, and the weight assigned to these faculty decisions. When the decisions concern "the academic product" and "the academic market" of the institution and are controlling, they are managerial in nature; those making the decisions assume managerial attributes and qualities. John A.

Gray succinctly described the Court's position in the following terms:

For the Supreme Court majority, as long as an individual faculty member's responsibilities are restricted to teaching assigned courses, evaluating students' academic performances, and individual research and scholarship, then the individual faculty member is clearly a professional employee with [National Labor Relations Act] rights. However, as soon as this individual leaves the classroom or office to meet with colleagues to decide broader academic matters and where their collective academic recommendations are normally determinative, then the same faculty member has been transformed into a "managerial employee" without [National Labor Relations Act] rights.¹⁶

In short, the Court held that faculty members are managers when their decisions are normally determinative of what the institution will offer (that is, "the academic product") and to whom it will be offered (that is, "the academic market").

Case effects on union membership

As noted earlier, the individual faculty member's contemplated decision concerning union membership may be viewed in terms of a choice between two bundles of goods: a nonunion bundle, consisting of those items available without joining a union, and a union bundle, consisting of items available as a result of union membership. The membership decision for faculty members at private institutions during the pre-Yeshiva years might appropriately be labeled a "nondecision." The choice was reduced to one where the faculty member was asked to decide between nonunion and union bundles of goods—the union bundle containing more of one good (that is, input on economic matters) and the same amount of another good (that is, input on professional matters) in comparison to the nonunion bundle. Selection of the union bundle was the only rational action open to faculty members, involving, as it did, the acquisition of more of one good with no sacrifice of other goods. Union membership was perceived as productive of benefits at essentially little or no cost. This was also the case for faculty members employed by public institutions operating under similarly structured and interpreted State statutes. Given the costless nature of the union membership decision during the pre-Yeshiva years, quite possibly the sole prerequisite for rapid organization of faculty members was their popular belief that collective bargaining provided some additional input, however marginal, in the determination of economic matters. The rapid growth in collective bargaining chronicled by Joseph W. Garbarino¹⁷ during 1966–79 can thus be explained on the basis of long-understood decision principles¹⁸ without recourse to a theory of faculty "proletarianization" such as that expounded by Marina Angel.¹⁹

NLRB v. Yeshiva University made the union membership decision by faculty members of private-sector institutions of higher education more complex. The *Yeshiva* decision introduced a significant cost factor to the decisionmaking process; National Labor Relations Act coverage (that is, union membership) required faculty members to forgo de-

terminative input concerning the nature of "the academic product" and "the academic market." Faculty members tend to view such a sacrifice:

... as creative of a semiprofessional status denying them their proper professional 'primary voice' in academic and faculty status matters and as not allowing them to exercise the full scope of their professional responsibilities. Faculties probably read the *Yeshiva* decision as saying that semiprofessional faculties have [National Labor Relations Act] rights, but fully professional faculties do not.²⁰

Thus, the choice of union membership may no longer be costless.

The impact of *Yeshiva* upon union membership growth at private institutions critically depends upon the relative magnitudes of the benefits and costs associated with union membership. If, as Marina Angel claims, there has occurred an emasculation of the faculty member's role in determinative decisionmaking concerning academic and faculty status matters brought on by "the lean years of the 1960's and 1970's,"²¹ the decision to become a union member is costless—the faculty member has already been transformed to semiprofessional status. Consequently, *Yeshiva* would have little, if any, impact upon the growth of unions and collective bargaining in higher education.

If the "proletarianization" of higher education has not occurred to the extent cited by Angel and others, the *Yeshiva* decision takes on added importance as an obstacle to the continued organization of private colleges and universities. Given the priority assigned to professional status by individual faculty members, the decision drastically increases the cost of union membership by requiring faculty members to become semiprofessionals. However, despite the increased cost, faculty members would continue to join unions as long as economic benefits exceeded the costs or what had to be forgone to achieve collective bargaining (that is, sacrifice of professional status) could be regained through collective bargaining, or both. Prospects for the realization of either of these conditions are limited. With regard to the impact of faculty bargaining upon economic variables, recent studies tend to indicate that faculty salaries have not been affected by unionization and collective bargaining.²² Indeed, even the critical issue of reduction in academic staff (that is, job security) has remained relatively insulated from the influence of faculty bargaining. Lawler reports that of 22 contracts sampled, all of which had been negotiated since 1978, none contained retrenchment provisions for faculty input regarding the determination of financial exigency or the allocation of budget cuts. In the area of the allocation of layoffs, only 22 percent of the contracts contained language which could be construed as providing faculty input, and in those in the area of the right to interdepartmental transfer, 32 percent.²³ Although Lawler's sample was restricted to public-sector institutions, it can be roughly interpreted as indicative of the limited success that labor organizations generally have had in bargaining strong con-

tractual retrenchment provisions.

As for reacquiring professional status through collective bargaining the outlook is similarly bleak. D. Alder, in a followup survey to one conducted by the American Association of University Professors in 1970 covering a thousand institutions, found little or no evidence that faculty bargaining increases input into institutional governance over what it would have been in the absence of bargaining.²⁴ One aspect of the *Yeshiva* decision that has a direct bearing upon a labor organization's ability to reestablish input on academic matters and which has gone unnoticed until now concerns the categories of bargaining topics. Not all subjects are mandatory topics for good-faith bargaining. The National Labor Relations Board, with Court approval, has established three categories of bargaining subjects: illegal, voluntary, and mandatory. Only the last must be bargained in good faith.²⁵ Given *Yeshiva*, consistency would appear to leave the Board and Court no alternative but to adhere to the Borg-Warner classification scheme and designate academic matters (that is, issues affecting the nature of "the academic product" and the breadth of "the academic market") as voluntary bargaining topics, nonbargainable if employers desire.²⁶ Thus, not only have faculty labor organizations failed in the past to augment faculty decisionmaking authority, but the *Yeshiva* decision, in context of the Borg-Warner bargaining categories, appears to seriously limit, if not preclude, this possibility in the future, at least in the area of academic matters.

MOST AUTHORS TO DATE have chosen the normative approach to examine *NLRB v. Yeshiva*, arguing the pros and cons of the Court's decision itself. By contrast, this report has examined the likely impact of the Court's ruling upon union organization of private-sector colleges and universities through its impact upon the benefits and costs associated with union membership. Given the basically rational nature of the union membership decision, the high priority attached by faculty members to matters relating to professional status, the consequent high cost of union membership imposed by *Yeshiva* (that is, potential loss of professional status), the limited success that faculty bargaining has had regarding economic and governance matters, and the likelihood that academic topics will be classified as voluntary bargaining items (nonbargainable in most instances), only one conclusion appears reasonable: *Yeshiva* will severely hinder union organization of private colleges and universities. In purely positive terms, the case may have rendered union membership prohibitively expensive (that is, costs may far exceed benefits) for most faculty members of these private institutions. To the extent that State administrative agencies

and courts follow the lead of the U.S. Supreme Court, the same impact may occur in the public sector—a sort of spillover effect. □

—FOOTNOTES—

¹444 U.S. 672 (1980).

²208 U.S. 274 (1908).

³321 U.S. 219 (1941); also see "Significant Decisions In Labor Cases," *Monthly Labor Review*, April 1980, pp. 57–58.

⁴Marina Angel, "White-Collar and Professional Unionization," *Labor Law Journal*, February 1982, pp. 82–101.

⁵John A. Gray, "Managerial Employees and the Industrial Analogy: *NLRB v. Yeshiva University*," *Labor Law Journal*, July 1982, pp. 390–408.

⁶Orley Ashenfelter and John H. Pencavel, "American Trade Union Growth: 1900–1960," *Quarterly Journal of Economics*, August 1969, pp. 434–48.

⁷Whether this individual is represented by a union, however, depends upon the collective choice of those in the bargaining unit.

⁸John A. Gray, "Managerial Employees and the Industrial Analogy," p. 397.

⁹For example, see Alan Edward Bent and T. Zane Reeves, *Collective Bargaining in the Public Sector* (Menlo Park, Calif., The Benjamin Cummings' Publishing Co., Inc., 1978), chapter 2; Allen Ponak, "Unionized Professionals and the Scope of Bargaining: A Study of Nurses," *Industrial and Labor Relations Review*, April 1981, pp. 396–407.

¹⁰Joseph W. Garbarino, *Faculty Bargaining: Change and Conflict* (New York, McGraw-Hill Book Co., 1975), chapter 4.

¹¹Sahab Dayal, "Faculty Unionism and Bargaining Unit Attitudes and Perceptions: A Case Study of Central Michigan University," *Labor Law Journal*, August 1982, pp. 554–60.

¹²*Ibid.*, p. 555.

¹³*Ibid.*, pp. 557–58.

¹⁴*Ibid.*, pp. 559–60.

¹⁵*Ibid.*, p. 559.

¹⁶John A. Gray, "Managerial Employees and the Industrial Analogy," p. 391.

¹⁷Joseph W. Garbarino, "Faculty Unionization: The Pre-*Yeshiva* Years, 1966–1979," *Industrial Relations*, Spring 1980, pp. 221–30.

¹⁸Robert S. Main and Charles W. Baird, *Elements of Microeconomics* (St. Paul, Minn., West Publishing Co., 1981), chapter 2.

¹⁹Marina Angel, "White-Collar and Professional Unionization," pp. 84–89.

²⁰John A. Gray, "Managerial Employees and the Industrial Analogy," pp. 391–92.

²¹Marina Angel, "White-Collar and Professional Unionization," p. 85.

²²J. Marshall, "The Effects of Collective Bargaining on Faculty Salaries in Higher Education," *Journal of Higher Education*, May 1979, pp. 310–22.

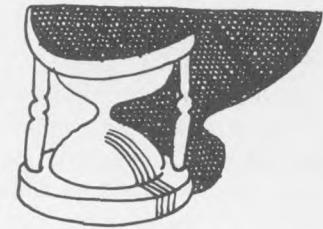
²³John J. Lawler, "Faculty Unionism in Higher Education: The Public Sector Experience," *Labor Law Journal*, August 1982, pp. 475–80.

²⁴D. Adler, *Governance and Collective Bargaining in Four-Year Institutions 1970–77* (Washington, Academic Collective Bargaining Information Service, 1977).

²⁵*NLRB v. Wooster Division of Borg-Warner Corporation*. 356 U.S. 342 (1958).

²⁶See, R. A. Gorman, *Basic Text on Labor Law—Unionization and Collective Bargaining* (St. Paul, Minn., West Publishing Co., 1976), pp. 523–29.

Major Agreements Expiring Next Month



This list of selected collective bargaining agreements expiring in August 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	Labor organization ¹	Number of workers
Airconditioning and Refrigeration Contractors Association of Southern California, Inc. (California)	Construction	Plumbers	1,400
Aluminum Company of America (Vernon, Calif.)	Primary metals	Auto Workers	1,000
American Steel Foundries (Ohio, Illinois, and Indiana)	Primary metals	Steelworkers	4,000
American Telephone and Telegraph Co., Long Lines Department (Interstate)	Communication	Communications Workers	23,300
Associated Guard and Patrol Agencies, Inc. (Illinois)	Services	Service Employees	6,000
Associated Underground Contractors, Inc. (Michigan)	Construction	Operating Engineers	1,650
Avtex Fibers, Inc. (Pennsylvania)	Chemicals	Clothing and Textile Workers	3,200
Babcock and Wilcox Co., Tubular Products Division (Pennsylvania)	Primary metals	Steelworkers	4,100
Bell Telephone Company of Pennsylvania (Pennsylvania)	Communication	Pennsylvania Telephone Guild (Ind.)	3,350
Bell Telephone Company of Pennsylvania (Pennsylvania)	Communication	Federation of Telephone Workers of Pennsylvania (Ind.)	11,950
Bell Telephone Company of Pennsylvania (Pennsylvania)	Communication	Electrical Workers (IBEW)	4,050
Bell Telephone Laboratories, Inc. (Illinois and New Jersey)	Electrical products	Communications Workers	1,700
Cameron Iron Works, Inc. (Texas)	Machinery	Machinists	4,000
Chesapeake and Potomac Telephone Co. (Interstate)	Communication	Communications Workers	33,050
Cincinnati Bell Inc. (Ohio and Kentucky)	Communication	Communications Workers	3,850
Cleveland Cliffs Iron Co. (Interstate)	Mining	Steelworkers	3,400
Combustion Engineering, Inc. (Chattanooga, Tenn.)	Fabricated metal products	Boilermakers	2,300
Cooper Industries, Inc., Cooper Energy Services Division (Grove City, Pa.)	Machinery	Steelworkers	1,300
Diamond State Telephone Co. (Delaware)	Communication	United Telephone Workers of Delaware (Ind.)	1,200
First Wisconsin National Bank (Milwaukee, Wis.)	Finance	First Wisconsin National Bank Employees Association (Ind.)	1,100
Fisher Controls Co. (Marshalltown, La.)	Fabricated metal products	Auto Workers (Ind.)	1,700
General Telephone Co. of Pennsylvania (Pennsylvania)	Communication	Communications Workers	2,050
Glass Packing Institute (Interstate)	Stone, clay, and glass products	Flint Glass Workers	4,000
Grumman Flexible Co. (Ohio)	Transportation equipment	Steelworkers	1,800
Gulf Resources and Chemical Corp., Bunker Hill Co. subsidiary (Kellogg, Idaho)	Mining	Steelworkers	1,500
Hanna Mining Co. and 3 others (Interstate)	Mining	Steelworkers	1,500
Harnischfeger Corp. (Milwaukee, Wis.)	Machinery	Steelworkers	2,300
Hotel Employers Association of San Francisco (California)	Hotels	Hotel Employees and Restaurant Employees	6,000
Illinois Bell Telephone Co: Commercial and Marketing Departments	Communication	Telephone Commercial Employees Union (Ind.)	2,500
Commercial Operations and others	Communication	Telephone Commercial Employees Union (Ind.)	2,200
Comptrollers and 3 others (Illinois and Indiana)	Communication	Electrical Workers (IBEW)	1,200
Traffic Department (Illinois)	Communication	Communications Workers	5,500
Military Agreement (Illinois)	Communication	Electrical Workers (IBEW)	13,800
Indiana Bell Telephone Co., Inc. (Indiana)	Communication	Communications Workers	6,900
Joy Manufacturing Co. (Franklin, Pa.)	Machinery	Machinists	1,600

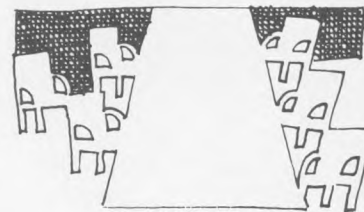
See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

Employer and location	Industry	Labor organization ¹	Number of workers
Latrobe Steel Co. (Latrobe, Pa.)	Primary metals	Steelworkers	1,000
Lukens Steel Co. (Coatesville, Pa.)	Primary metals	Steelworkers	2,150
Michigan Bell Telephone Co., Plant Department (Michigan)	Communication	Communications Workers	20,000
Microdot Inc., Valley Mould and Iron Co. Division (Ohio and Illinois)	Primary metals	Steelworkers	1,000
Moore McCormack Co., Pickands Mather and Co. subsidiary (Minnesota)	Mining	Steelworkers	2,900
Mountain States Telephone and Telegraph Co. (Interstate)	Communication	Communications Workers	29,200
Nabisco Foods Co., Nabisco Brands Inc. (Interstate)	Food products	Bakery and Tobacco Workers	10,300
National Electrical Contractors Association, 2 agreements (Massachusetts and Texas)	Construction	Electrical Workers (IBEW)	5,600
National Forge Co. (Irvine, Pa.)	Primary metals	Independent Union of National Forge Employees (Ind.)	1,250
New England Mechanical Contractors Association, Inc. (Boston, Mass.)	Construction	Plumbers	1,000
New England Telephone and Telegraph Co. (Interstate):			
Plant Department	Communication	Electrical Workers (IBEW)	16,000
Accounting Department	Communication	Electrical Workers (IBEW)	1,400
Traffic Department	Communication	Electrical Workers (IBEW)	6,300
New Jersey Bell Telephone Co.:			
Plant and Engineering Departments	Communication	Electrical Workers (IBEW)	11,450
Traffic Department	Communication	Communications Workers	4,600
Vice President and Comptroller and General Departments	Communication	Electrical Workers (IBEW)	1,250
Commercial and Marketing Departments	Communication	Communications Workers	3,700
Commercial and Marketing Departments	Communication	Telephone Traffic Union (Ind.)	3,050
New York Telephone Co.:			
Commercial, Directory, Public Telephone, Sales, and Headquarters Departments (Downstate)	Communication	Union of Telephone Workers (Ind.)	8,000
Accounting Department (New York Area)	Communication	Telephone Employees Organization (Ind.)	3,000
Commercial, Sales, and Directory Departments (Upstate)	Communication	Telephone Commercial Union (Ind.)	2,400
Empire City Subway Co. (New York City Area)	Communication	Communications Workers	42,400
Northwestern Steel and Wire Co.	Primary metals	Steelworkers	4,000
Ohio Bell Telephone Co. (Ohio)	Communication	Communications Workers	18,000
Pacific Telephone and Telegraph Co. and 1 other, 2 agreements (California and Nevada)	Communication	Communications Workers and Electrical Workers (IBEW)	69,250
Raytheon Co. (Massachusetts)	Electrical products	Electrical Workers	9,000
Reserve Mining Co. (Silver Bay and Babbitt, Minn.)	Mining	Steelworkers	2,900
Roofing Contractors Association of Southern California, Inc. (California)	Construction	Roofers	1,500
Southern Bell Telephone and Telegraph Co. (Interstate)	Communication	Communications Workers	50,000
Southern New England Telephone Co. (Connecticut)	Communication	Connecticut Union of Telephone Workers, Inc. (Ind.)	10,000
Southwestern Bell Telephone Co. (Interstate)	Communication	Communications Workers	64,550
Teledyne Wah Chang (Albany, Ore.)	Primary metals	Steelworkers	1,050
Teletype Corp., 2 agreements (Illinois and Arkansas)	Electrical products	Electrical Workers (IBEW) and Teletype Employees' Industrial Union (Ind.)	3,650
Timken Co. (Canton, Ohio)	Machinery	Steelworkers	7,800
Western Electric Co.:			
Allentown Works (Pennsylvania)	Electrical products	Electrical Workers (IBEW)	3,250
Baltimore Works (Maryland)	Electrical products	Communication Equipment Workers Inc. (Ind.)	4,650
Columbus Works (Ohio)	Electrical products	Electrical Workers (IBEW)	3,900
Denver Works (Colorado)	Electrical products	Electrical Workers (IBEW)	2,300
Hawthorne Works, 2 agreements (Illinois)	Electrical products	Electrical Workers (IBEW)	6,100
Indianapolis Works (Indiana)	Electrical products	Electrical Workers (IBEW)	5,750
Installation Department (Interstate)	Communication	Communications Workers	14,000
Kearny Works (New Jersey)	Electrical products	Electrical Workers (IBEW)	4,900
Montgomery Works (Interstate)	Electrical products	Electrical Workers (IBEW)	2,050
Merrimack Valley Works (Massachusetts)	Electrical products	Electrical Workers (IBEW)	22,650
Oklahoma Works (Oklahoma)	Electrical products	Electrical Workers (IBEW)	3,950
Omaha Works (Nebraska)	Electrical products	Electrical Workers (IBEW)	3,300
Reading Works (Pennsylvania)	Electrical Products	Electrical Workers (IBEW)	2,150
Service Division (Interstate)	Communication	Communications Workers	14,750
Shreveport Works (Louisiana)	Electrical products	Electrical Workers (IBEW)	5,700
Wisconsin Electric Power Co. (Wisconsin)	Utilities	Electrical Workers (IBEW)	1,050
Wisconsin Telephone Co. (Wisconsin)	Communication	Communications Workers	6,250

¹Affiliated with AFL-CIO except where noted as independent (Ind.).

Developments in Industrial Relations



Airline settlements

Settlements in the airline transportation industry showed mixed results: some unions negotiated improvements in pay and benefits, others won restoration of pay cuts that had been negotiated earlier to aid the carriers in weathering financial difficulties, and still others accepted cuts to help offset continuing difficulties. The financial difficulties the major "old line" carriers have been experiencing in recent years are generally attributed to the deregulation of the industry which resulted in an influx of nonunion companies offering lower fares, to higher taxes and fuel costs, and to a decline in passengers because of general economic conditions.

At Eastern Airlines, the Machinists ended 19 months of negotiations by accepting a 3-year contract that just averted a scheduled strike. One of the major issues in the talks was the union's contention that the 13,500 mechanics, baggage handlers, and other ground service workers in the bargaining unit were paid less than their counterparts the union represents at other carriers. In addition, the union wanted the initial wage increase to be retroactive to the January 1, 1982, termination date of the prior contract. Eastern contended that it could not meet these demands because it had lost \$44.1 million in the first 2 months of 1983 and \$158.2 million in the preceding 3 years.

The new contract, which terminates on December 31, 1984, provides for a 21-percent pay increase retroactive to January 1, 1983, followed by increases of 2.1 percent on July 1, 1983, 3.4 percent on January 1, 1984, and 3.6 percent on July 1, 1984. The increases will bring the top rate for mechanics to \$17.40, 30 cents higher than the 1983 rate at Delta Air Lines, one of Eastern's major competitors. (Delta's mechanics and other ground service workers are not represented by a union.) Other wage provisions included suspension of the provision for automatic cost-of-living pay adjustments; a two-stage increase in afternoon, evening, and odd or relief shifts, to 51, 58, and 61 cents an hour by April 1, 1984; and several increases in the premium for each Federal Aviation Administration license held by mechanics,

reaching 50 cents an hour for each license (maximum two) held on November 1, 1984.

Eastern's Variable Earnings Plan, which had been in existence since 1977, was replaced by an Investment Bonus Agreement running from July 4, 1982, to June 30, 1984. Under the plan, 3.5 percent of each employee's pay will be retained by Eastern each year. If the carrier earns a profit of 2 percent of sales, the withheld amount is returned to the workers, along with 10 percent interest. If the profit is greater than 2 percent, the employees will receive one-third of the excess. If the profit is less than 2 percent or if Eastern loses money, the employees receive only the amount withheld from their pay plus the 10 percent interest. Previously, part or all of the 3.5 percent that was withheld from employees was permanently retained by Eastern if needed to attain the 2-percent profit goal, and the employees did not receive interest on any money returned to them.

The union agreed to some cost reduction measures, such as reducing the size of the crews that move airplanes, and giving Eastern greater flexibility in scheduling work.

Eastern President Frank Borman expressed "grave concern" over the cost of the settlement, saying that the carrier was forced to accept the terms because a strike "would have so weakened this company as to jeopardize its future." Immediately after the Machinists announced approval of the accord, Borman announced that 1,600 employees would be laid off on May 1, including some members of the Machinists union, reducing Eastern's work force to 37,600.

Meanwhile, the Air Line Pilots Association's Master Executive Council decided that Eastern's flight officers should revote on a decision to defer for 1 year a 9.5-percent pay increase scheduled for April 1983, and a 4.5-percent increase scheduled for August 1983. The flight officers had approved the deferral, but the vote results were invalid because some ballots had not been counted. Members of the council said that the revote decision was motivated by their concern that the expected \$30 million savings from the deferral would have been used to subsidize the wage-and-benefit gains negotiated by the Machinists.

In the revote, the 4,200 flight crew members rejected the wage deferral plan. The Air Line Pilots and Eastern then renewed negotiations, which resulted in a 2-year settlement. The accord provided for 17.5 percent (the 9.5 and 4.5 percent pay increase plus the 3.5 percent of earnings that had

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been going into the Variable Earnings Plan) of total pay to be taken in the form of subordinated debentures paying 5 percent interest. The debentures will be convertible into Eastern common stock—at the employee's option—at \$16 a share, beginning with 25 percent of the debentures in April 1985. The remainder will be converted over the following 3 years.

Other terms included an increase in monthly flight time to 85 hours, from 80, and a 20-percent reduction in remaining 1983 vacation time and a 25-percent reduction in 1984 vacation time.

After this accord, the company's 16,000 nonunion employees—who had recently received a 10- to 15-percent pay increase—voted to follow the Machinists' lead by diverting 3.5 percent of their pay into the investment bonus plan, and to take another 6.5 percent of their pay in the form of convertible debentures.

The Machinists also agreed to permit individual members to decide if they want to take part of their just-negotiated pay increases in convertible debentures. Negotiations also were under way with the Transport Workers on a new contract, including a possible pay-for-securities provision for 5,500 flight attendants.

One of the other carriers involved in the round of bargaining in the airline industry was Pan American World Airways, which settled with the Teamsters and the Transport Workers unions.

Its 2-year contract with the Teamsters covered 7,200 clerical and ground service workers. The accord provided for elimination of a 10-percent pay cut that was effective on September 15, 1981; on April 1, 1983, the workers' pay rates were increased to 95 percent of the rates that prevailed just before the cut, and the balance will be restored on January 1, 1984. Other items included a further deferral for 2 years of a 25-cent-an-hour automatic cost-of-living pay adjustment that was scheduled for January 1982, but had been deferred to January 1, 1983; and adoption of a profit-sharing plan.

The Transport Workers' 3-year contract, covering 6,000 mechanics and other ground service employees, provided for half of their existing 10 percent pay cut to be restored on April 1, 1983, and the balance on January 1, 1984. The cut, negotiated in 1981, had been scheduled to be restored on January 1, 1983. The 1983 settlement also provided for payment on January 1, 1985, of the following increases that had been deferred under the 1981 settlement: 4 percent, plus a 25-cent cost-of-living adjustment originally scheduled for January 3, 1982; 4 percent originally scheduled for July 4, 1982; and 2 percent, plus a 25-cent cost-of-living adjustment originally scheduled for January 2, 1983.

The Transport Workers also settled with American Airlines for 10,500 ground service and related employees. The 3-year accord raised wages by 7 percent, retroactive to September 1, 1982, 6 percent on September 10, 1983, and 7 percent on September 8, 1984. Other terms included elim-

ination of the provision for automatic cost-of-living pay adjustments; a 36- to 40-percent cut in starting rates for new hires, and a stretching to 12 years of the time required for them to progress to top pay rates; a \$1-an-hour maximum limit on license premium pay (was 65 cents); a 51-, 58-, and 61-cent an hour shift differentials (was 21, 28, and 31 cents); and a special one-time retirement package for employees eligible to retire on or before April 1, 1983.

At Trans World Airlines, a 3-year contract negotiated by the Independent Federation of Flight Attendants called for pay increases of 10 percent retroactive to August 1, 1981, 10 percent retroactive to August 1, 1982, 4 percent on April 1, 1983, and 3 percent on December 1, 1983, and July 2, 1984. The cost-of-living clause also was continued, providing for an adjustment of up to \$12 a month on September 1, 1983. Benefit changes included company assumption of the full cost of the pension plan and refunds of past employee contributions, increased credits for past service, and a \$150-a-month increase (to \$250) in the temporary supplement to basic pensions.

Auto Workers delegates bid Fraser farewell

An era closed at the Auto Workers' 27th constitutional convention, as Douglas Fraser ended his career as head of the union. Fraser, 66, was the last of the union's leaders associated with the late Walter Reuther after the founding of the union and the successful organizing efforts at the major automobile manufacturers in the 1930's. Fraser's 6-year tenure as leader of the union was marked by a cooperative relationship with the auto producers to aid them in countering the increasing inroads of foreign producers. The first important result of this new approach occurred in late 1979, when the union broke its tradition of pattern bargaining in the industry by settling with ailing Chrysler Corp. on a less costly contract than with General Motors Corp. and Ford Motor Co. Subsequently, the union agreed to further concessions at Chrysler, and at Ford, General Motors, American Motors Corp., and Volkswagen of America. In late 1982, Chrysler's condition had improved enough to permit some narrowing of the pay and benefit disparity that had developed between Chrysler workers and those at Ford and GM.

UAW Vice President Owen Bieber, who was elected to succeed Fraser, faces the challenge of steering the union between increasing membership demands for restoration of pay and benefit cuts in view of the auto producers' return to profitability, and the producers' insistence that they are still operating at a severe cost disadvantage in relation to Japanese and other foreign producers. Bieber, age 53, and a UAW member since 1948, also faces the challenge of reversing a decline in UAW membership to 1.1 million, from 1.5 million in 1979.

In another leadership change, Vice President Martin Gerber retired and was replaced by Billy Casstevens, a regional

official from Ohio. All of the other vice presidents and Secretary-Treasurer Raymond Majerus were elected to new 3-year terms. Vice President Donald Ephlin was chosen to succeed Bieber as head of the union's General Motors Department. Ephlin's position as head of the Ford Department was then filled by Vice President Stephen Yokich.

Auto Workers end strike against Caterpillar

Members of 10 locals of the Automobile Workers ratified a settlement with Caterpillar Tractor Co. in mid-April, ending the longest multiplant strike over national issues in the union's history. The 7-month stoppage began on the October 1, 1982, termination date of the prior contract. The major issue in the dispute was a company demand for wage-and-benefit cuts it said were necessary for a return to profitability. Caterpillar, which lost \$180 million in 1982 and \$172 million in the first quarter of 1983, attributed its difficulties to a severe slump in demand for construction equipment and diesel engines and to intensified competition from foreign companies.

In recommending acceptance of the 37½ month agreement, Auto Workers' Vice President Stephen Yokich said that "to continue the strike would not result in further improvements in the settlement which has been negotiated."

The agreement did not provide for any specified wage increase, but the provision for automatic quarterly cost-of-living pay adjustments was retained, with the first adjustment to be effective in June 1983. The total 11 cents an hour that the employees would have received had there been adjustments in December 1982 and March 1983 was diverted into the Supplemental Unemployment Benefits fund, beginning on the effective date of the new contract. This increase in financing will continue for the life of the contract, regardless of the level of the fund. The SUB fund also was strengthened by establishing a procedure under which Caterpillar will advance money to pay benefits when the fund drops below a specified level. Maximum benefit levels also were changed, to \$100 a week when the fund is below 35 percent of the designated maximum fund level, to \$150 when the fund level is between 35 and 50 percent, and to 95 percent of weekly after-tax pay, less \$12.50, when the fund exceeds 50 percent of its maximum level.

A new 4-year profit-sharing plan provides for the workers to receive possible distributions in April of each year if Caterpillar's worldwide pretax profits exceed a 4.5-percent return on its average sales and beginning-of-the-year net assets. The distribution will be 1 cent for each hour worked in the preceding year if the return is 4.5 to 5.0 percent, increasing by 1 cent for each 0.5-percentage point rise in the return, up to a total of 11 percent, and for each 0.3-percentage point rise above that level. The first distribution, in April 1985, is guaranteed to be at least 31 cents for each hour worked in 1984, regardless of Caterpillar's performance. The employees will have the option of taking the

distributions in Caterpillar stock to be turned over to them when they leave the company.

In the areas of job security and employment opportunities, several changes were won by the union, including establishment of a master recall list; preferential hiring and recall provisions; requirements for advance notice and mutual discussions prior to partial or complete plant shutdowns or outsourcing (subcontracting of work); special early retirement benefits and extended insurance coverage for workers affected by plant shutdowns; and outplacement assistance.

Changes favorable to Caterpillar were concentrated in the area of paid time off. Under a new attendance bonus program, employees will receive 1 hour of extra pay for perfect attendance during each normal 5-day 40-hour workweek. Under the prior program, they received 1.5 hours for each week of perfect attendance, and when they accumulated 8 bonus hours, they could either be paid for the hours, or use them in the form of paid time off.

In a change in holidays, July 5 and December 23, 1985, were added as paid days off, and the annual paid Sunday holiday—a day for which employees simply received holiday pay without taking off the following day—was terminated.

The agreement, which was ratified by a 10,703 to 5,144 vote, runs to June 1, 1986. It covers 21,000 active employees, and 15,000 on layoff. The covered plants are in Peoria, Aurora, Decatur, and Pontiac, Ill.; Davenport and Burlington, Iowa; York, Pa.; Mentor, Ohio; Denver, Colo.; and Memphis, Tenn.

Xerox can contract out to save labor costs

Xerox Corp., which intensified its cost control efforts in 1982 by cutting employment through layoffs and retirement inducements, made further progress in 1983 by negotiating a new contract designed "to increase productivity and make Xerox more competitive," according to an announcement by the company and the Clothing and Textile Workers Union. The company also offered retirement inducements to some nonunion employees.

In return for accepting smaller wage and benefit gains than in the prior contract, the 3,250 covered workers in the Rochester, N.Y., area were guaranteed their jobs for the 3-year term. The contract calls for a 1-percent wage increase in 1984 and 2 percent in 1985, compared with 3 percent annual raises in the prior 3-year contract. Possible automatic cost-of-living adjustments in the second and third years will be limited to 6 percent in each year. Under the previous unlimited formula, adjustments totaled \$2.26 an hour, or about 23 percent. The workers also will have to pay a larger portion of the cost of a new medical and dental plan.

The company was given greater freedom in subcontracting work outside the plant. Previously, only work for which the company did not possess the necessary in-house skills could be sent out. Now, Xerox can send out work simply

to save money, but only after a joint quality-of-worklife committee attempts to find ways to retain the work. Employees displaced by contracting out of work will be moved to other jobs and assured their existing pay rates. New provisions allow Xerox to fire employees involved in four or more unauthorized absences from work in a year, or more than six during 2 consecutive years.

Xerox offered salary continuance ranging from 1 to 12 months of pay to nonunion employees in certain operations, who volunteer to leave the company. For those 51½ years or older with 8 years or more of service, the continuance amounts to 15 months of pay which can be stretched out to last until the employee becomes eligible for a pension at age 55.

Workers' rights strengthened at J.P. Stevens

J. P. Stevens & Co. and the Clothing and Textile Workers, whose initial labor contract in 1980 ended years of strife, negotiated a renewal contract. Union president Murray H. Finley said the settlement reflected "a maturing of the collective bargaining process in which both parties demonstrated a willingness to live with each other."

The 25-month accord was limited to noneconomic matters and covered 3,500 workers at 9 plants in Roanoke Rapids and High Point, N.C., and Allendale, S.C. The accord will expire on May 28, 1985, the same date as the union's contract for the 500 employees it represents at a Stevens plant in Wallace, N.C. Overall, Stevens has about 40,000 employees and 70 plants.

The settlement strengthened worker seniority rights in job bidding and shift selection; layoff and job "bumping" procedures; grievance and arbitration procedures; and shop stewards' rights and responsibilities.

Wages and benefits will be negotiated in late spring, when Stevens and other textile firms generally begin considering possible wage and benefit change for their nonunion employees.

Coors employees to receive company stock

About 10,000 employees of the Adolph Coors Co. will be receiving shares of company stock under a plan announced by the brewer. At the end of each year, Coors will buy the necessary shares of stock and will credit them to individual employee accounts at the rate of 0.5 percent of their annual base pay. According to a company official, this would amount to \$140 a year based on average base pay of \$28,000. The stock will be held by a trustee until the em-

ployee quits or retires. At that time, the employee will have the option of retaining the stock or selling it back to Coors. A Coors official said the company would not incur any significant costs for the new plan because the purchases will be a tax deductible business expense.

Communications workers tested for job bank

The Communications Workers union has established a program to test the skills of its members and to then match the workers with available jobs in the fast-changing communications industry. The first test, to certify members as "communications technicians I," was taken by 300 people, each of whom paid \$29. Those who passed received a certificate and their names were entered in the computerized job bank. Those who failed received an analysis of the test results indicating the skills they need to improve. To aid workers who fail a test or want to prepare before taking a test, training will be offered by the union at eight locations throughout the country.

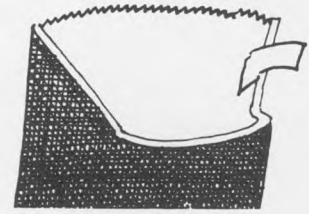
Legal action against Teamsters pension fund ends

The Department of Labor reached a settlement with the Teamsters Central States Pension and Health and Welfare Funds, ending legal actions which began in 1981 against the fund and their current trustees. Under the settlement, the trustees will repay the funds \$6.5 million for alleged overpayments to a firm that processed benefit claims for the funds, the purchase price and operating costs of a jet aircraft the trustees are now required to sell, and for fees paid for the legal defense of two former trustees. Actually, the \$6.5 million will be paid by insurance firms that protected the trustees against such civil liabilities.

In September 1982, the Department and the current trustees entered into a consent agreement which placed the pension fund under the supervision of an independent financial supervisor and an independent special counsel. (See *Monthly Labor Review*, November 1982, p. 50.) The current settlement extends the same arrangement to the health and welfare fund.

Meanwhile, the department was proceeding with legal actions against former trustees of the funds, who resigned as part of a 1977 settlement with the Government. (See *Monthly Labor Review*, May 1977, p. 57.) According to the department, the former trustees' liability for alleged misuse of money exceeds \$35 million, with only \$2 million covered by their insurance. One of the defendants is Teamsters President Jackie Presser. □

Book Reviews



The other Japan

Japan's Wasted Workers. By Jon Woronoff. Totowa, N.J., Allanheld, Osmun & Co., 1983. 296 pp. \$19.95, cloth; \$10.95, paper.

In contrast to much of the recent literature dealing in flattering terms with the Japanese model of labor-management relations, this volume focuses on what is wrong with work in Japan. Jon Woronoff is an American economic journalist who has resided in Japan for nearly a decade, and speaks with considerable first-hand knowledge of its industrial scene. The volume, originally published in Japanese, is clearly designed as an antidote to the numerous publications, mainly by Westerners, which tend to portray Japanese workers and managers as "one big happy family," all diligently dedicated to increasing efficiency in a climate of shared responsibility and shared rewards.

The central theme that all is not well in the Japanese labor force is expounded over some 10 chapters, dealing with such diverse subjects as the limitations of the bureaucratic style of Japanese management, the plight of older workers forced into premature retirement, the pervasive pattern of discrimination against Japanese women workers, the emerging surplus of college graduates, and the extent of disguised unemployment not reflected in the official statistics. The author's style is nontechnical and somewhat polemical. A number of key generalizations, such as the alleged need for more specialist training, are not adequately documented.

Despite these shortcomings, for those interested in a more realistic portrayal of the Japanese work climate, this volume fills an important gap in the available descriptive literature. It highlights the marked duality between Japan's highly sophisticated large-scale manufacturing sector and much of the rest of the Japanese economy. Japan's remarkable economic growth rates and high productivity in the former fields are attributed primarily to the rapid rate of the introduction of new machinery and technology, and only secondarily to labor-management factors. Conversely, the author cites numerous illustrations of overstaffing and outmoded personnel practices in sectors such as public service and retail trade. Among the more obvious of these—even to the casual visitor—is the much higher ratio of sales personnel to customers in Japanese department stores than in their American

counterparts: "To make the customers feel like royalty, there is one young lady, dressed in a fancy uniform, to help him (or more likely her) into the elevator, another to push the button and call out the floors, and a third to bow low over the escalators".

The sectors of the Japanese economy singled out by the author as most inefficient are, not coincidentally, those which include large proportions of female employees. Women—even those with college degrees—are rarely regarded as permanent employees, because of the persistence of traditional attitudes that they will discontinue work upon marriage or even in advance of marriage, to enter "bridal training." Although an increasing proportion of the younger, better educated women now aspire to lifetime work careers, very few are given the much vaunted protections of "lifetime employment," afforded by the larger companies to regular male employees with similar qualifications. Women are also systematically discriminated against, according to the author, in terms of pay, and in being deprived of equal training, job assignments, and opportunities for promotion.

The more peripheral attachment of Japanese women to the labor force, in turn, has contributed to what the author considers to be a substantial undercount of unemployment in the official statistics, which have indicated exceptionally low unemployment rates, of about 2 percent, even during periods of recent economic slowdown. Noting that labor force participation rates—particularly for women—dropped significantly during the 1973–75 recession, Woronoff estimates that 2 million or more potential workers "disappeared" from the labor force because of the discouragement effect. He also cites estimates that an additional 2 to 3 million workers were retained on company payrolls, rather than being laid off, even though redundant to current labor needs. Allowance for these categories of hidden or disguised unemployment would, he claims, have raised the Japanese unemployment rates to levels more comparable to those then reported in the United States and other advanced industrial nations.

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Work and economic security in Japan

Wages in Japan Today. By Makoto Sakurabayshi. West Berlin, Germany, Free University of Berlin, 1982. 86 pp.

In recent years, many English language publications have promised to inform the reader about Japan's economic success, first in its 20 years of rapid growth, 1955–75, and, subsequently, in responding more successfully than many Western countries to the oil shocks and world recession. These explanations sometimes place great emphasis on a single factor which, while important, is not the entire story. Makoto Sakurabayshi's brief monograph provides a welcome change as he describes the Japanese employment and wage systems and assesses their strengths and weaknesses.

The book's six chapters are: Employment System, Wage Administration, Union Impact, Wage Growth, Wage Gap, and Part-Time Employees' Wages. Professor Sakurabayshi, who teaches at Teikyo University in Tokyo, had as his objective a book which would explain how the Japanese wage and employment systems have contributed to Japan's ability to enjoy simultaneously a high rate of growth in real wages and a tendency toward lower unit wage costs. He was also interested in whether authors of other studies were correct in their observations that the Japanese systems facilitate technical innovation and an optimal use of labor.

The words "permanent employment," coined by James Abegglen some 25 years ago, are widely associated with the employment relationship in Japan. What does the concept really mean? There are a variety of interpretations with no clear consensus, even among Japanese scholars. In this book, the concept is as follows: (1) new hires are limited to individuals who have recently graduated from school; (2) the employee anticipates that the employer will provide employment until the employee reaches retirement age—somewhere between the ages of 55 and 60; and (3) there is a "flexible seniority," which means if individuals must be removed from the payroll because of an economic slump (a) they will be chosen from among the older employees; (b) they will be discharged rather than laid off; and (c) they will be chosen for discharge through use of a merit-rating plan.

The pattern of real wage growth is presented as a complex interaction between corporate ability to pay (measured by levels of productivity or profits), and the level of effective demand and supply for labor (measured by the ratio of job offers and applicants at the Public Employment Service). Once the level of wages has been determined, it is up to the principles of wage determination to allocate amounts to specific workers. An individual's income is centered upon basic wages and a semiannual bonus plus some small allowances for various items. Basic wages depend on the worker's age, education, years of service with the firm, and job skills. The amount of income stemming from years of service with the firm will vary with the worker's merit, a

concept that has more to do with attendance and loyalty than with specific abilities.

Wage differences between large and small firms can be substantial, especially for older well-educated white-collar employees. For example, in 1981, the wage for a worker 50 to 54 years of age employed in a large firm (1,000 employees or more) was 1.35 times the amount received by a similarly educated man of the same age in a small firm (10 to 99 employees). In part, this is because a greater proportion of men in the large firms have many years of continued service. If service is held constant at 25 to 30 years, there would be a difference of 16 percent in favor of those in large firms. If bonuses are included, then the difference is 37 percent. Sakurabayshi explains these differences using the same variables he used for wage growth. He explains the failure of the differential to completely close on the basis of a shortage of physical capital, leading to differences in value-added productivity in the different-sized firms. This initially results in the large firm employing the best workers. Combined with the differences in physical capital, the smaller firm is prevented from catching up with the larger firm in terms of both human and physical capital, and, therefore, must always pay less.

The chapter on part-time workers is of special interest because these workers are not usually discussed in other studies. According to the author, they have lower supply prices and therefore receive lower wages. Their lower wages and lack of regular status provide a degree of flexibility to the employment relationship, but allow a less flexible system for regular employees. In this sense, the part-time worker is a substitute for temporary, seasonal, and subcontract workers in the principal employer's plant, classes of workers who in earlier years provided flexibility for the Japanese economy.

This monograph provides an assessment of the wage and employment systems in the current Japanese economy. The author points out the advantages which these personnel systems have given to the Japanese economy, primarily in facilitating rapid introduction of technological change and emphasis on quality control at the initial work station. The book notes that the principal beneficiaries of these systems are well-educated male employees in large enterprises. As a counterweight, the author considers some of the disadvantages to society and to individuals.

If read as a supplement to a more generalized book on the Japanese economy, this monograph can be quite valuable, but its range is too narrow for it to be used as an introduction to the labor economy of Japan. The book is largely institutional and descriptive and some readers will require additional documentation and analysis of some proposed interrelationships. Indeed, the monograph's weak point is that it does not provide more in the way of analysis, especially because the cited literature, which in some cases would provide more of the analysis, is in Japanese and not available to most readers of the book. Still, the institutional

material should be quite valuable to the reader who wishes to know more about these aspects of the Japanese economy.

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Publications received

Economic growth and development

Braithwaite, Carlton, *The Impact of Investment Incentives on Canada's Economic Growth*. Ottawa, Economic Council of Canada, 1983, 128 pp., bibliography. \$8.95, Canada; \$10.75, other countries. Available from the Canadian Government Publishing Center, Supply and Services Canada, Ottawa.

Feingold, S. Norman and Norma Reno Miller, *Emerging Careers: New Occupations for the Year 2000 and Beyond*. Garrett Park, Md., Garrett Park Press, 1983, 172 pp. \$10.95.

Lim, David, "Fiscal Incentives and Direct Foreign Investment in Less Developed Countries," *The Journal of Development Studies*, January 1983, pp. 207–12.

Millerd, Frank W., "Canadian Urban Industrial Growth from 1961 to 1971," *Growth and Change*, January 1983, pp. 20–26.

Economic and social statistics

Riche, Martha Farnsworth, "Data Companies 1983," *American Demographics*, February 1983, pp. 28–39.

U.S. Department of Health and Human Resources, *The Registered Nurse Population: An Overview (From National Sample of Registered Nurses, November 1980)*. Rev. November 1982. Prepared by Evelyn B. Moses, assisted by William E. Spencer and Rosalyn Roman. Washington, U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Bureau of Health Professions, Office of Data Analysis and Management, 1983, 55 pp. (DHHS Publication No. HRS-P-OD-83-1.)

Health and safety

Fielding, Jonathan E. and Lester Breslow, "Health Promotion Programs Sponsored by California Employers," *American Journal of Public Health*, May 1983, pp. 538–42.

U.S. Department of Labor, *Injury and Illness Data Available from 1980 Workers' Compensation Records*. Washington, 1983, 5 pp. (Announcement, 83-1.)

Yelin, Edward H., Jane S. Kramer, Wallace V. Epstein, "Is Health Care Use Equivalent Across Social Groups? A Diagnosis-Based Study," *American Journal of Public Health*, May 1983, pp. 563–71.

Industrial relations

Chiplin, Brian and Peter J. Sloane, *Tackling Discrimination at the Workplace: An Analysis of Sex Discrimination in Britain*. New York, Cambridge University Press, 1982, 156 pp. \$29.95.

Cottle, Rex L., Hugh M. Macaulay, Bruce Yandle, *Labor and Property Rights in California Agriculture: An Economic Analysis of the CALRA*. College Station, Texas A&M University

Press, 1982, 116 pp., bibliography. \$18.50.

Fox, Sanford, J., "Child Labor Law: Reform Goals and the New Reality," *New Generation*, Winter 1983, pp. 4–8.

Goldberg, Roberta, *Organizing Women Office Workers: Dissatisfaction, Consciousness, and Action*. New York, Praeger Publishers, 1983, 152 pp., bibliography. \$25.95.

Harrison, Michael I. and Ephraim Tabory, "Professionalism and Unionism: The Case of Faculty Unions in Israeli Universities," *Journal of Collective Negotiations in the Public Sector*, Vol. 12, No. 1, 1983, pp. 57–69.

Herrick, John Smith, "Labor Arbitration as Viewed by Labor Arbitrators," *The Arbitration Journal*, March 1983, pp. 39–48.

Isaac, J. E., "Economics and Industrial Relations," *Journal of Industrial Relations*, December 1982, pp. 495–516.

Lawrence, Anne and Paul Chown, *Plant Closings and Technological Change: A Guide for Union Negotiators*. Berkeley, University of California, Institute of Industrial Relations, Center for Labor Research and Education, 1983, 54 pp. (Labor Training Series, Pt. II.) \$6.

Levitan, Sar and Alexandra B. Noden, *Working for the Sovereign: Employee Relations in the Federal Government*. Baltimore, Md., The Johns Hopkins University Press, 1983, 152 pp. \$14.95.

Markey, Ray, "New Technology, the Economy and the Unions in Britain," *Journal of Industrial Relations*, December 1982, pp. 557–77.

"No Time for Changes: Easing of Child Labor Laws Proposed," *New Generation*, Winter 1983, pp. 1–3.

Purcell, John, "The Management of Industrial Relations in the Modern Corporation: Agenda for Research," *British Journal of Industrial Relations*, March 1983, pp. 1–16.

Roukis, George S., "Should the Railway Labor Act Be Amended?" *The Arbitration Journal*, March 1983, pp. 16–20.

Smith, Susan Kay, "Faculty Collective Bargaining at Central Michigan University: A Prototype?" *Journal of Collective Negotiations in the Public Sector*, Vol. 12, No. 1, 1983, pp. 45–55.

Wilson, Bennie J. III, William H. Holley, John S. Martin, "Effects of Faculty Unions on Administrators' Attitudes Toward Issues in Higher Education," *Journal of Collective Negotiations in the Public Sector*, Vol. 12, No. 1, 1983, pp. 33–44.

International economics

Bond, Eric and Douglas Mitchell, "On the Destabilizing Effects of Balance of Payments Sterilization," *Australian Economic Papers*, December 1982, pp. 345–51.

de Menil, George and Anthony M. Solomon, *Economic Summitry*. New York, Council on Foreign Relations, Inc., 1983, 88 pp. \$8.95.

Great Britain, Department of Employment, "Monitoring Labour Standards," by John Wood, *Employment Gazette*, April 1983, pp. 135–38.

Jones, Michael, "International Liquidity: A Welfare Analysis," *The Quarterly Journal of Economics*, February 1983, pp. 1–23.

Kapur, Basant, K., "Optimal Financial and Foreign-Exchange Liberalization of Less Developed Economies," *The Quarterly*

Journal of Economics, February 1983, pp. 41-62.

- Kohli, Ulrich R., "Beginning- and End-of-Period Specifications of Asset Demand Functions in Balance-of-Payments Theory," *Australian Economic Papers*, December 1982, pp. 332-44.
- Lawrence, Colin and Pablo T. Spiller, "Product Diversity, Economies of Scale, and International Trade," *The Quarterly Journal of Economics*, February 1983, pp. 63-83.
- Levitt, Theodore, "The Globalization of Markets," *Harvard Business Review*, May-June 1983, pp. 92-102.
- Lodge, George Cabot and William R. Glass, "U.S. Trade Policy Needs One Voice," *Harvard Business Review*, May-June 1983, pp. 75-83.
- Sender, Henriette, "The Decline and Fall of OPEC," *Dun's Business Month*, March 1983, pp. 50-53.
- "The Middle East, 1983," *Current History*, January 1983, pp. 1-42.

Labor and economic history

- Milton, David, *The Politics of U.S. Labor: From the Great Depression to the New Deal*. New York, Monthly Review Press, 1982, 189 pp. \$18.
- Soltow, Martha Jane and Susan Gravelle, *Worker Benefits—Industrial Welfare in America, 1900-1935: An Annotated Bibliography*. Metuchen, N.J., The Scarecrow Press, Inc., 1983, 242 pp. \$16.50.

Labor force

- Albeda, Wil, "Reflections on the Future of Full Employment: Part I," *Labour and Society*, October-December 1982, pp. 355-81.
- Duncan, Joseph, "The Job Market Looks Up," *Dun's Business Month*, April 1983, pp. 60-61.
- Grais, Bernard, *Lay-Offs and Short-Time Working in Selected OECD Countries*. Paris, Organization for Economic Co-operation and Development, 1983, 145 pp. \$11.95. Available in the United States from the Washington Branch of OECD.
- Great Britain, Department of Employment, "Labor Market for Young People in Scotland," by Andrew MacLeod, Brian Main, David Raffe, *Employment Gazette*, March 1983, pp. 96-101.
- Gregory, R. G., "Work and Welfare in the Years Ahead," *Australian Economic Papers*, December 1982, pp. 219-43.
- Kalleberg, Arne L. and Karyn A. Loscocco, "Aging, Values, and Rewards: Explaining Age Differences in Job Satisfaction," *American Sociological Review*, February 1983, pp. 78-90.
- Main, Brian G. M. and David Raffe, "Determinants of Employment and Unemployment Among School Leavers: Evidence from the 1979 Survey of Scottish School Leavers," *Scottish Journal of Political Economy*, February 1983, pp. 1-17.
- Paukert, Liba, "Personal Preference, Social Change or Economic Necessity? Why Women Work?" *Labour and Society*, October-December 1982, pp. 311-31.
- U.S. Department of Health and Human Services, *Working Women and Childbearing: United States (Data from the National Survey of Family Growth)*. Hyattsville, Md., U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics, Office of Health Research, Statistics, and Technology, 1983, 53 pp. (DHHS Publication No. (PHS) 82-1985, Series 23, No. 9.) Available from the Superintendent of Documents, Washington 20402.

Management and organization theory

- Barra, Ralph, *Putting Quality Circles to Work: A Practical Strategy for Boosting Productivity and Profits*. New York, McGraw-Hill Book Co., 1983, 200 pp. \$19.95.
- "Compensation and Benefits," *Personnel Administrator*, May 1983, pp. 37-82.
- Great Britain, Department of Employment, "Workers' Involvement in a Changing World: Quality Circles," *Employment Gazette*, March 1983, pp. 102-04.
- Marsland, Stephen and Michael Beer, "The Evolution of Japanese Management: Lessons for U.S. Managers," *Organizational Dynamics*, Winter 1983, pp. 49-67.
- Martin, Shan, *Managing Without Managers: Alternative Work Arrangements in Public Organizations*. Beverly Hills, Calif., Sage Publications, 1983, 200 pp. (Sage Library of Social Research, Vol. 147.) \$22, cloth; \$10.95, paper.
- Nadler, David A. and Edward E. Lawler III, "Quality of Work Life: Perspectives and Directions," *Organizational Dynamics*, Winter 1983, pp. 20-30.
- Zorn, Theodore E., Jr., *The Manager's Role In Developing Subordinates*. New York, American Management Associations, AMA Membership Publications Division, 1983, 49 pp. \$7.50 AMA members; \$10, nonmembers.
- Zussman, Yale M., "Learning from the Japanese: Management in a Resource-Scarce World," *Organizational Dynamics*, Winter 1983, pp. 68-70.

Monetary and fiscal policy

- Brems, Hans, *Fiscal Theory: Government, Inflation, and Growth*. Lexington, Mass., D. C. Heath and Co., Lexington Books, 1983, 182 pp. \$22.95.
- Hausman, Jerry A., *Taxes and Labor Supply*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1983, 84 pp. (NBER Working Paper Series, 1102.) \$1.50.
- Mitchell, Karlyn, "Trends in Corporation Finance," *Economic Review*, Federal Reserve Bank of Kansas City, March 1983, pp. 3-15.
- Roth, Howard L. and Diane Seibert, "The Effect of Alternative Discount Rate Mechanisms on Monetary Control," *Economic Review*, Federal Reserve Bank of Kansas City, March 1983, pp. 16-29.
- Wilson, Marilyn, "Deficits: The \$200 Billion Question," *Dun's Business Month*, March 1983, pp. 28-30.

Productivity and technological change

- Ledebur, Larry C. and Ronald L. Moomaw, "A Shift-Share Analysis of Regional Labor Productivity in Manufacturing," *Growth and Change*, January 1983, pp. 2-9.
- Shetty, Y. Krishma and Vernon M. Buehler, eds., *Quality and Productivity Improvements: U.S. and Foreign Company Experiences*. Chicago, Manufacturing Productivity Center, 1983, 332 pp., bibliography. \$15.

Urban affairs

- Bradbury, Katharine L., Anthony Downs, Kenneth A. Small, *Urban Decline and the Future of American Cities*. Washington, The Brookings Institution, 1982, 309 pp. \$26.95, cloth; \$10.95, paper.
- Murray, Thomas J., "Housing Leads the Way Again," *Dun's Business Month*, March 1983, pp. 53-54.

Wages and compensation

- Cappelli, Peter, "Comparability and the British Civil Service," *British Journal of Industrial Relations*, March 1983, pp. 33-45.
- Goldfarb, Robert S., Anthony M. J. Yezer, Sebastian Crewe, "Some New Evidence: Have Regional Wage Differentials Really Disappeared?" *Growth and Change*, January 1983, pp. 48-51.
- Great Britain, Department of Employment, "Case Study: Alternate Week Working," by Auriol Blandy, *Employment Gazette*, March 1983, pp. 125-28.
- "Equal Pay and Sex Discrimination," *Employment Gazette*, April 1983, pp. 165-69.
- "Women's Pay in Informal Payment Systems," by Christine Craig, Elizabeth Garnsey, Jill Rubery, *Employment Gazette*, April 1983, beginning on p. 139.
- Papier, William, *Unemployment Benefit Fraud in Ohio*. Columbus, Ohio Bureau of Employment Services, Division of Research and Statistics, 1983, 30 pp.
- Penn, Roger, "The Course of Wage Differentials Between Skilled and Nonskilled Manual Workers in Britain Between 1856 and 1964," *British Journal of Industrial Relations*, March 1983, pp. 69-90.
- State of New York, Department of Labor, *Annual Report of the State Advisory Council on Employment and Unemployment Insurance*. New York, State Department of Labor, Advisory

Council on Employment and Unemployment Insurance, 1982, 80 pp.

- U.S. Bureau of Labor Statistics, *The Female-Male Earnings Gap: A Review of Employment and Earnings Issues*. By Janet L. Norwood, Washington, 1983, 10 pp. (Report 673.)

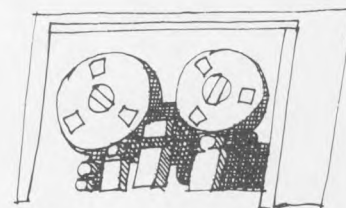
Welfare programs and social insurance

- Brodkin, Evelyn and Michael Lipsky, "Quality Control in AFDC as an Administrative Strategy," *Social Service Review*, March 1983, pp. 1-34.
- Chakravarty, Satya Ranjan, "Ethically Flexible Measures of Poverty," *Canadian Journal of Economics*, February 1983, pp. 74-85.
- Mudrick, Nancy R., "Income Support Programs for Disabled Women," *Social Service Review*, March 1983, pp. 125-36.
- National Commission on Social Security Reform, *Report of the National Commission on Social Security Reform*. Washington, 1983. Various pagings. Stock No. 040-000-00463-7. \$7.50, Superintendent of Documents, Washington 20402.

Worker training and development

- Great Britain, Department of Employment, "The Youth Training Program in Northern Ireland," by Boyd Black and Garry Foster, *Employment Gazette*, April 1983, pp. 153-57.
- Raffa, Frederick A., Clyde A. Haulman, Djehane A. Hosni, comps., *United States Employment and Training Programs: A Selected Annotated Bibliography*. Westport, Conn., Greenwood Press, 1983, 154 pp. \$27.95. □

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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.

Seasonally adjusted labor force data in tables 3-8 were revised in the February 1983 issue of the *Review*, to reflect experience through 1982.

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, February 1980). 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 shown in tables 11, 13, and 15 were made in August 1981 using the X-11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in tables 29 and 30 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. More information from household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau. Comparable household information is published in a two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. Comparable establishment information appears in two data books—*Employment and Earnings, United States*, and *Employment and Earnings, States and Areas*, and their annual supplements. 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

Series	July releases	Period covered	August releases	Period covered	September releases	Period covered	MLR table number
Employment situation	July 8	June	August 5	July	September 2	August	1-11
Producer Price Index	July 15	June	August 12	July	September 9	August	23-27
Consumer Price Index	July 22	June	August 23	July	September 23	August	19-22
Real earnings	July 22	June	August 23	July	September 23	August	12-16
Major collective bargaining settlements	July 28	1st half	.....	.....	.....	.....	35-36
Productivity and costs:							
Nonfarm business and manufacturing	July 29	2nd quarter	.....	.....	.....	.....	28-31
Nonfinancial corporations . . . . .	.....	.....	August 26	2nd quarter	.....	.....	28-31
Employment Cost Index . . . . .	.....	.....	August 4	2nd quarter	.....	.....	32-34

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 60,000 households 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 include (1) all civilians 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. Members of the Armed Forces stationed in the United States are also included in the employed total. 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 **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **unemployment**

rate for all civilian workers represents the number unemployed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. 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 long-term 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, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional population that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the noninstitutional population.

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 2-8 are seasonally adjusted, based on the seasonal experience through December 1982.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-82

[Numbers in thousands]

Year	Noninstitutional population	Labor force										Not in labor force
		Number	Percent of population	Employed					Unemployed			
				Total	Percent of population	Resident Armed Forces	Civilian		Number	Percent of labor force		
							Total	Agriculture			Nonagricultural industries	
1950	106,164	63,377	59.7	60,087	56.6	1,169	58,918	7,160	51,758	3,288	5.2	42,787
1955	111,747	67,087	50.0	64,234	57.5	2,064	62,170	6,450	55,722	2,852	4.3	44,660
1960	119,106	71,489	60.0	67,639	56.8	1,861	65,778	5,458	60,318	3,852	5.4	46,617
1965	128,459	76,401	59.5	73,034	56.9	1,946	71,088	4,361	66,726	3,366	4.4	52,058
1966	130,180	77,892	59.8	75,017	57.6	2,122	72,895	3,979	68,915	2,875	3.7	52,288
1967	132,092	79,565	60.2	76,590	58.0	2,218	74,372	3,844	70,527	2,975	3.7	52,527
1968	134,281	80,990	60.3	78,173	58.2	2,253	75,920	3,817	72,103	2,817	3.5	53,291
1969	136,573	82,972	60.8	80,140	58.7	2,238	77,902	3,606	74,296	2,832	3.4	53,602
1970	139,203	84,889	61.0	80,796	58.0	2,118	78,678	3,463	75,215	4,093	4.8	54,315
1971	142,189	86,355	60.7	81,340	57.2	1,973	79,367	3,394	75,972	5,016	5.8	55,834
1972	145,939	88,847	60.9	83,966	57.5	1,813	82,153	3,484	78,669	4,882	5.5	57,091
1973	148,870	91,203	61.3	86,838	58.3	1,774	85,064	3,470	81,594	4,355	4.8	57,667
1974	151,841	93,670	61.7	88,515	58.3	1,721	86,794	3,515	83,279	5,156	5.5	58,171
1975	154,831	95,453	61.6	87,524	56.5	1,678	85,845	3,408	82,438	7,929	8.3	59,377
1976	157,818	97,826	62.0	90,420	57.3	1,668	88,752	3,331	85,421	7,406	7.6	59,991
1977	160,689	100,665	62.6	93,673	58.3	1,656	92,017	3,283	88,734	6,991	6.9	60,025
1978	153,541	103,882	63.5	97,679	59.7	1,631	96,048	3,387	92,661	6,202	6.0	59,659
1979	166,460	106,559	64.0	100,421	60.3	1,597	98,824	3,347	95,477	6,137	5.8	59,900
1980	169,349	108,544	64.1	100,907	59.6	1,604	99,303	3,364	95,938	7,637	7.0	60,806
1981	171,775	110,315	65.2	102,042	59.4	1,645	100,397	3,368	97,030	8,273	7.5	61,460
1982	173,939	111,872	64.3	101,194	58.2	1,668	99,526	3,401	96,125	10,578	9.5	62,067

2. Employment status of the population, including Armed Forces in the United States, by sex, seasonally adjusted

[Numbers in thousands]

Employment status and sex	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Total															
Noninstitutional population ^{1,2}	171,775	173,939	173,691	173,854	174,038	174,200	174,360	174,549	174,718	174,864	175,021	175,169	175,320	175,465	175,622
Labor force ²	110,315	111,872	112,043	111,811	112,090	112,303	112,528	112,420	112,702	112,794	112,215	112,217	112,148	112,457	112,418
Participation rate ³	64.2	64.3	64.5	64.3	64.4	64.5	64.5	64.4	64.5	64.5	64.1	64.1	64.0	64.1	64.0
Total employed ²	102,042	101,194	101,659	101,345	101,262	101,372	101,213	100,844	100,796	100,758	100,770	100,727	100,767	101,129	101,226
Employment-population rate ⁴	59.4	58.2	58.5	58.3	58.2	58.2	58.0	57.8	57.7	57.6	57.6	57.5	57.5	57.6	57.6
Resident Armed Forces ¹	1,645	1,668	1,665	1,664	1,674	1,689	1,670	1,668	1,660	1,665	1,667	1,664	1,664	1,671	1,669
Civilian employed	100,397	99,526	99,994	99,681	99,588	99,683	99,543	99,176	99,136	99,093	99,103	99,063	99,103	99,458	99,557
Agriculture	3,368	3,401	3,446	3,371	3,445	3,429	3,363	3,413	3,466	3,411	3,412	3,393	3,375	3,371	3,367
Nonagricultural industries	97,030	96,125	96,548	96,310	96,143	96,254	96,180	95,763	95,670	95,682	95,691	95,670	95,729	96,088	96,190
Unemployed	8,273	10,678	10,384	10,466	10,828	10,931	11,315	11,576	11,906	12,036	11,446	11,490	11,381	11,328	11,192
Unemployment rate ⁵	7.5	9.5	9.3	9.4	9.7	9.7	10.1	10.3	10.6	10.7	10.2	10.2	10.1	10.1	10.0
Not in labor force	61,460	62,067	61,648	62,043	61,948	61,897	61,832	62,129	62,016	62,070	62,806	62,952	63,172	63,008	63,204
Men, 16 years and over															
Noninstitutional population ^{1,2}	82,023	83,052	82,929	83,006	83,097	83,173	83,231	83,323	83,402	83,581	83,652	83,720	83,789	83,856	83,931
Labor force ²	63,486	63,979	64,172	63,895	63,989	64,055	64,301	64,300	64,414	64,384	63,916	63,996	63,957	64,207	64,276
Participation rate ³	77.4	77.0	77.4	76.9	76.9	77.0	77.3	77.2	77.2	77.0	76.4	76.4	76.3	76.6	76.6
Total employed ²	58,909	57,800	58,251	57,775	57,664	57,710	57,598	57,456	57,408	57,338	57,283	57,234	57,300	57,476	57,656
Employment-population rate ⁴	71.8	69.6	70.2	69.5	69.4	69.4	69.2	69.0	68.8	68.6	68.5	68.4	68.4	68.5	68.7
Resident Armed Forces ¹	1,512	1,527	1,527	1,526	1,537	1,551	1,526	1,524	1,516	1,529	1,531	1,528	1,528	1,530	1,528
Civilian employed	57,397	56,271	57,724	56,249	56,127	56,159	56,072	55,932	55,892	55,809	55,752	55,706	55,772	55,946	56,128
Unemployed	4,577	6,179	5,921	6,076	6,234	6,345	6,703	6,844	7,006	7,046	6,633	6,762	6,657	6,731	6,620
Unemployment rate ⁵	7.2	9.7	9.2	9.5	9.8	9.9	10.4	10.6	10.9	10.9	10.4	10.6	10.4	10.5	10.3
Women, 16 years and over															
Noninstitutional population ^{1,2}	89,751	90,887	90,762	90,848	90,941	91,027	91,129	91,226	91,316	91,283	91,369	91,449	91,532	91,609	91,691
Labor force ²	46,829	47,894	47,871	47,960	48,192	48,248	48,227	48,120	48,288	48,410	48,299	48,220	48,191	48,251	48,142
Participation rate ³	52.2	52.7	52.7	52.8	53.0	53.0	52.9	52.7	52.9	53.0	52.9	52.7	52.6	52.7	52.5
Total employed ²	43,133	43,395	43,408	43,570	43,598	43,662	43,615	43,388	43,388	43,420	43,486	43,493	43,467	43,653	43,569
Employment-population rate ⁴	48.1	47.7	47.8	48.0	47.9	48.0	47.9	47.6	47.5	47.6	47.6	47.6	47.5	47.7	47.5
Resident Armed Forces ¹	133	139	138	138	137	138	144	144	144	136	136	136	136	141	141
Civilian employed	43,000	43,256	43,270	43,432	43,461	43,524	43,471	43,244	43,244	43,284	43,350	43,357	43,331	43,512	43,428
Unemployed	3,696	4,499	4,463	4,390	4,594	4,586	4,612	4,732	4,900	4,990	4,813	4,727	4,724	4,597	4,572
Unemployment rate ⁵	7.9	9.4	9.3	9.2	9.5	9.5	9.6	9.8	10.1	10.3	10.0	9.8	9.8	9.5	9.5

¹The population and Armed Forces figures are not adjusted for seasonal variation.

²Includes members of the Armed Forces stationed in the United States.

³Labor force as a percent of the noninstitutional population.

⁴Total employed as a percent of the noninstitutional population.

⁵Unemployment as a percent of the labor force (including the resident Armed Forces).

3. Employment status of the civilian population by sex, age, race, and Hispanic origin, seasonally adjusted

[Numbers in thousands]

	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL															
Civilian noninstitutional population ¹	170,130	172,271	172,026	172,190	172,364	172,511	172,690	172,881	173,058	173,199	173,354	173,305	173,656	173,794	173,953
Civilian labor force	108,670	110,204	110,378	110,147	110,416	110,614	110,858	110,752	111,042	111,129	110,548	110,553	110,484	110,786	110,749
Participation rate	63.9	64.0	64.2	64.0	64.1	64.1	64.2	64.1	64.2	64.2	63.8	63.7	63.6	63.7	63.7
Employed	100,397	99,526	99,994	99,681	99,588	99,683	99,543	99,176	99,136	99,093	99,103	99,063	99,103	99,458	99,557
Employment-population ratio ²	59.0	57.8	58.1	57.9	57.8	57.8	57.6	57.4	57.3	57.2	57.2	57.1	57.1	57.2	57.2
Agriculture	33.68	3.401	3.446	3.371	3.445	3.429	3.363	3.413	3.466	3.411	3.412	3.393	3.375	3.371	3.367
Nonagricultural industries	97,030	96,125	96,548	96,310	96,143	96,254	96,180	95,763	95,670	95,682	95,691	95,670	95,729	96,088	96,190
Unemployed	8,273	10,678	10,384	10,466	10,828	10,931	11,315	11,576	11,906	12,036	11,446	11,490	11,381	11,328	11,192
Unemployment rate	7.6	9.7	9.4	9.5	9.8	9.9	10.2	10.5	10.7	10.8	10.4	10.4	10.3	10.2	10.1
Not in labor force	61,460	62,067	61,648	62,043	61,948	61,897	61,832	62,129	62,016	62,070	62,806	62,952	63,172	63,008	63,204
Men, 20 years and over															
Civilian noninstitutional population ¹	72,419	73,644	73,499	73,585	73,685	73,774	73,867	73,984	74,094	74,236	74,339	74,434	74,528	74,611	74,712
Civilian labor force	57,197	57,980	58,008	57,959	58,055	58,064	58,354	58,363	58,454	58,443	58,048	58,177	58,170	58,454	58,506
Participation rate	79.0	78.7	78.9	78.8	78.8	78.7	79.0	78.9	78.9	78.7	78.1	78.2	78.1	78.3	78.3
Employed	53,582	52,891	53,190	52,943	52,905	52,832	52,776	52,649	52,589	52,534	52,452	52,428	52,589	52,752	52,901
Employment-population ratio ²	74.0	71.8	72.4	71.9	71.8	71.6	71.4	71.2	71.0	70.8	70.6	70.4	70.6	70.7	70.8
Agriculture	2,384	2,422	2,446	2,424	2,462	2,433	2,436	2,444	2,434	2,389	2,426	2,374	2,420	2,404	2,443
Nonagricultural industries	51,199	50,469	50,744	50,519	50,443	50,399	50,340	50,205	50,155	50,145	50,025	50,054	50,169	50,348	50,458
Unemployed	3,615	5,089	4,818	5,016	5,150	5,232	5,578	5,714	5,865	5,909	5,597	5,749	5,581	5,702	5,605
Unemployment rate	6.3	8.8	8.3	8.7	8.9	9.0	9.6	9.8	10.0	10.1	9.6	9.9	9.6	9.8	9.6
Women, 20 years and over															
Civilian noninstitutional population ¹	81,497	82,864	82,707	82,811	82,926	83,035	83,152	83,271	83,385	83,383	83,490	83,593	83,699	83,794	83,899
Civilian labor force	42,485	43,699	43,632	43,819	43,983	44,039	43,996	43,936	44,112	44,286	44,201	44,216	44,166	44,238	44,228
Participation rate	52.1	52.7	52.8	52.9	53.0	53.0	52.9	52.8	52.9	53.1	52.9	52.9	52.8	52.8	52.7
Employed	39,590	40,086	40,064	40,254	40,311	40,368	40,286	40,112	40,123	40,215	40,238	40,291	40,277	40,509	40,484
Employment-population ratio ²	48.6	48.4	48.4	48.6	48.6	48.6	48.4	48.2	48.2	48.2	48.2	48.1	48.1	48.3	48.3
Agriculture	604	601	614	586	598	590	588	578	590	628	625	657	647	622	597
Nonagricultural industries	38,986	39,485	39,450	39,668	39,713	39,778	39,698	39,534	39,533	39,587	39,613	39,634	39,630	39,886	39,887
Unemployed	2,895	3,613	3,568	3,565	3,672	3,671	3,710	3,824	3,989	4,071	3,963	3,925	3,889	3,729	3,744
Unemployment rate	6.8	8.3	8.2	8.1	8.3	8.3	8.4	8.7	9.0	9.2	9.0	8.9	8.8	8.4	8.5
Both sexes, 16 to 19 years															
Civilian noninstitutional population ¹	16,214	15,763	15,820	15,794	15,753	15,702	15,671	15,625	15,579	15,580	15,525	15,478	15,429	15,389	15,342
Civilian labor force	8,988	8,526	8,738	8,369	8,378	8,511	8,508	8,453	8,476	8,400	8,299	8,160	8,148	8,094	8,015
Participation rate	55.4	54.1	55.2	53.0	53.2	54.2	54.3	54.1	54.4	53.9	53.5	52.7	52.8	52.6	52.2
Employed	7,225	6,549	6,740	6,484	6,372	6,483	6,481	6,415	6,424	6,344	6,413	6,345	6,237	6,197	6,172
Employment-population ratio ²	44.6	41.5	42.6	41.1	40.4	41.3	41.4	41.1	41.2	40.7	41.3	41.0	40.4	40.3	40.2
Agriculture	380	378	386	361	385	406	339	391	442	394	361	362	308	344	327
Nonagricultural industries	6,845	6,171	6,354	6,123	5,987	6,077	6,142	6,024	5,982	5,950	6,052	5,983	5,929	5,853	5,845
Unemployed	1,763	1,977	1,998	1,885	2,006	2,028	2,027	2,038	2,052	2,056	1,886	1,815	1,911	1,897	1,843
Unemployment rate	19.6	23.2	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7	22.2	23.5	23.4	23.0
White															
Civilian noninstitutional population ¹	147,908	149,441	149,250	149,429	149,569	149,536	149,652	149,838	149,887	150,056	150,129	150,187	150,382	150,518	150,671
Civilian labor force	95,052	96,143	96,405	96,165	96,385	96,375	96,640	96,453	96,719	96,864	96,176	95,987	95,996	96,287	96,362
Participation rate	64.3	64.3	64.6	64.4	64.4	64.4	64.6	64.4	64.5	64.6	64.1	63.9	63.8	64.0	64.0
Employed	88,709	87,903	88,350	88,089	88,021	87,979	87,872	88,477	87,435	87,443	87,466	87,194	87,324	87,709	87,777
Employment-population ratio ²	60.0	58.8	59.2	59.0	58.8	58.8	58.7	58.4	58.3	58.3	58.1	58.1	58.1	58.3	58.3
Unemployed	6,343	8,241	8,055	8,076	8,364	8,396	8,768	8,976	9,284	9,421	8,711	8,793	8,672	8,577	8,585
Unemployment rate	6.7	8.6	8.4	8.4	8.7	8.7	9.1	9.3	9.6	9.7	9.1	9.2	9.0	8.9	8.9
Black															
Civilian noninstitutional population ¹	18,219	18,584	18,542	18,570	18,600	18,626	18,659	18,692	18,723	18,740	18,768	18,796	18,823	18,851	18,880
Civilian labor force	11,086	11,331	11,318	11,267	11,341	11,400	11,443	11,398	11,475	11,522	11,542	11,548	11,554	11,631	11,672
Participation rate	60.8	61.0	61.0	60.7	61.0	61.2	61.3	61.0	61.3	61.5	61.5	61.4	61.4	61.7	61.8
Employed	9,355	9,189	9,209	9,171	9,211	9,220	9,172	9,102	9,159	9,127	9,142	9,276	9,253	9,209	9,270
Employment-population ratio ²	51.3	49.4	49.7	49.4	49.5	49.5	49.2	48.7	48.9	48.7	48.7	49.4	49.2	48.8	49.1
Unemployed	1,731	2,142	2,109	2,096	2,130	2,180	2,271	2,296	2,316	2,395	2,400	2,271	2,302	2,423	2,402
Unemployment rate	15.6	18.9	18.6	18.6	18.8	19.1	19.8	20.1	20.2	20.8	20.8	19.7	19.9	20.8	20.6
Hispanic origin															
Civilian noninstitutional population ¹	9,310	9,400	9,297	9,428	9,521	9,689	9,464	9,474	9,355	9,301	9,328	9,368	9,551	9,665	9,747
Civilian labor force	5,972	5,983	6,004	5,965	5,972	6,045	5,961	5,973	5,923	5,898	5,981	5,992	6,074	6,206	6,167
Participation rate	64.1	63.6	64.6	63.3	62.7	62.4	63.0	63.0	63.3	63.4	64.1	64.0	63.6	64.2	63.3
Employed	5,348	5,158	5,182	5,155	5,136	5,162	5,097	5,075	5,012	4,998	5,053	5,042	5,088	5,304	5,318
Employment-population ratio ²	57.4	54.9	55.7	54.7	53.9	53.3	53.9	53.6	53.6	53.7	54.2	53.8	53.3	54.9	54.6
Unemployed	624	825	822	810	836	883	864	898	911	900	929	950	986	902	849
Unemployment rate	10.4	13.8	13.7	13.6	14.0	14.6	14.5	15.0	15.4	15.3	15.5	15.8	16.2	14.5	13.8

¹The population figures are not seasonally adjusted.

²Civilian employment as a percent of the civilian noninstitutional population.
c = corrected.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

4. Selected employment indicators, seasonally adjusted

[Numbers in thousands]

Selected categories	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CHARACTERISTIC															
Civilian employed, 16 years and over	100,397	99,526	99,994	99,581	99,588	99,683	99,543	99,176	99,136	99,093	99,103	99,063	99,103	99,458	99,557
Men	57,397	56,271	56,724	56,249	58,127	56,159	56,073	55,932	55,892	55,809	55,752	55,706	55,772	55,946	56,128
Women	43,000	43,256	43,270	43,432	43,461	43,524	43,471	43,244	43,244	43,284	43,350	43,357	43,331	43,512	43,428
Married men, spouse present	38,882	38,074	38,274	38,254	38,177	38,121	37,998	37,852	37,641	37,507	37,450	37,428	34,452	37,523	37,560
Married women, spouse present	23,915	24,053	24,112	24,331	24,173	24,235	24,159	24,081	23,985	24,155	24,205	24,070	24,171	24,371	24,229
Women who maintain families	4,998	5,099	4,991	5,120	5,200	5,208	5,118	5,107	5,025	4,985	5,038	5,050	5,097	4,944	4,942
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,464	1,505	1,530	1,457	1,523	1,548	1,537	1,576	1,584	1,547	1,637	1,624	1,515	1,560	1,595
Self-employed workers	1,638	1,636	1,679	1,681	1,655	1,620	1,569	1,621	1,628	1,627	1,587	1,541	1,585	1,607	1,558
Unpaid family workers	266	261	251	254	254	255	254	229	241	224	231	223	260	28	229
Nonagricultural industries:															
Wage and salary workers	89,543	88,462	88,872	88,548	88,548	88,576	88,562	88,064	87,936	87,976	87,813	87,794	87,912	88,187	88,395
Government	15,68	15,516	15,454	15,514	15,471	15,562	15,681	15,436	15,514	15,477	15,386	15,501	15,452	15,518	15,523
Private industries	73,853	72,945	73,418	72,934	73,077	73,014	72,881	72,628	72,422	72,499	72,427	72,293	72,459	72,668	72,872
Private households	1,208	1,207	1,204	1,205	1,200	1,227	1,220	1,216	1,221	1,163	1,162	1,232	1,235	1,205	1,228
Other	72,645	71,738	72,214	71,729	71,870	71,787	71,661	71,412	71,201	71,336	71,265	71,061	71,225	71,463	71,644
Self-employed workers	7,097	7,262	7,262	7,301	7,286	7,338	7,422	7,332	7,349	7,335	7,465	7,385	7,453	7,528	7,408
Unpaid family workers	390	401	392	398	393	408	378	403	382	383	380	353	342	353	335
PERSONS AT WORK¹															
Nonagricultural industries	91,377	90,552	91,082	90,917	90,414	90,486	90,884	90,232	90,238	90,219	90,903	90,207	90,271	92,267	90,941
Full-time schedules	74,339	72,245	72,869	72,545	72,288	72,045	71,723	71,394	71,442	71,499	71,786	71,564	71,878	73,594	72,975
Part time for economic reasons	4,499	5,852	5,731	5,561	5,577	5,820	6,495	6,903	6,411	6,425	6,845	6,481	6,202	6,082	5,928
Usually work full time	1,738	2,169	2,195	2,126	2,047	2,100	2,519	2,381	2,228	2,153	2,200	2,097	1,927	1,871	1,685
Usually work part time	2,761	3,683	3,536	3,435	3,530	3,720	3,976	4,022	4,183	4,272	4,645	4,384	4,275	4,21	4,243
Part time for noneconomic reasons	12,539	12,455	12,482	12,811	12,549	12,621	12,666	12,435	12,385	12,295	12,271	12,162	12,191	12,592	12,038

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

5. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CHARACTERISTIC															
Total, all civilian workers	7.6	9.7	9.4	9.5	9.8	9.9	10.2	10.4	10.7	10.8	10.4	10.4	10.3	10.2	10.1
Both sexes, 16 to 19 years	19.6	23.2	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7	22.2	23.5	23.4	23.0
Men, 20 years and over	6.3	8.8	8.3	8.7	8.9	9.0	9.6	9.8	10.0	10.1	9.6	9.9	9.6	9.8	9.6
Women, 20 years and over	6.8	8.3	8.2	8.1	8.3	8.3	8.4	8.7	9.0	9.2	9.0	8.9	8.8	8.4	8.5
White, total	6.7	8.6	8.4	8.4	8.7	8.7	9.1	9.3	9.6	9.7	9.1	9.2	9.0	8.9	8.9
Both sexes, 16 to 19 years	17.3	20.4	19.9	19.7	20.9	20.8	20.7	21.5	21.2	21.6	20.0	19.7	21.4	20.4	19.8
Men, 16 to 19 years	17.9	21.7	20.9	21.2	22.5	22.5	22.2	23.0	22.6	22.8	21.2	21.1	22.9	21.7	20.2
Women, 16 to 19 years	16.6	19.0	18.7	18.0	19.1	18.9	19.1	19.9	19.8	20.4	18.7	18.2	19.7	19.0	19.4
Men, 20 years and over	5.6	7.8	7.5	7.7	7.9	8.0	8.6	8.8	9.1	9.2	8.4	8.7	8.5	8.6	8.6
Women, 20 years and over	5.9	7.3	7.2	7.1	7.3	7.2	7.5	7.6	8.0	8.1	7.8	7.7	7.4	7.2	7.3
Black, total	15.6	18.9	18.6	18.6	18.8	19.1	19.8	2.1	20.2	20.8	20.8	19.7	19.9	20.8	20.6
Both sexes, 16 to 19 years	41.4	48.0	49.4	51.2	49.3	51.2	48.6	47.7	49.8	49.5	45.7	45.4	43.5	49.0	48.2
Men, 16 to 19 years	40.7	48.9	49.7	55.7	48.9	50.5	51.0	49.2	53.0	52.5	45.9	45.3	44.5	48.0	53.1
Women, 16 to 19 years	42.2	47.1	49.1	46.0	49.7	52.1	45.9	45.9	46.2	46.2	45.5	45.4	42.3	50.0	42.3
Men, 20 years and over	13.5	17.8	17.1	17.3	17.1	17.1	16.1	9.2	19.6	19.2	20.5	19.7	18.7	18.8	20.3
Women, 20 years and over	13.4	15.4	15.3	15.1	15.5	15.4	15.7	16.2	16.5	16.5	18.2	17.0	17.7	17.0	17.1
Hispanic origin, total	10.4	13.8	13.7	13.6	14.0	14.6	14.5	15.0	15.4	15.3	15.5	15.8	16.2	14.5	13.8
Married men, spouse present	4.3	6.5	6.1	6.4	6.6	6.8	7.2	7.5	7.6	7.8	7.1	7.2	7.1	7.1	7.0
Married women, spouse present	6.0	7.4	7.3	7.1	7.4	7.3	7.6	7.9	8.2	8.2	7.8	7.6	7.5	7.3	7.5
Women who maintain families	10.4	11.7	11.9	12.1	12.0	11.7	12.4	11.3	12.5	13.2	13.2	13.0	13.5	13.2	12.9
Full-time workers	7.3	9.6	9.2	9.4	9.6	9.7	10.2	10.5	10.6	10.8	10.3	10.4	10.3	10.2	9.9
Part-time workers	9.4	10.5	10.5	10.0	11.2	10.4	10.6	10.3	11.3	11.1	10.6	10.1	10.5	10.6	11.0
Unemployed 15 weeks and over	2.1	3.2	3.0	3.2	3.2	3.3	3.5	3.8	4.1	4.3	4.2	4.2	4.2	3.9	4.1
Labor force time lost ¹	8.5	11.0	10.7	10.4	10.7	10.9	11.7	12.0	12.4	12.7	11.7	12.0	11.8	11.4	11.5
INDUSTRY															
Nonagricultural private wage and salary workers	7.7	10.1	9.8	10.0	10.2	10.2	11.0	11.0	11.4	11.6	10.8	10.8	10.8	10.5	10.5
Mining	6.0	13.4	12.1	14.0	15.8	16.0	18.5	17.9	18.1	18.1	17.1	18.4	18.6	20.3	22.7
Construction	15.6	20.0	18.9	19.5	20.3	20.4	22.3	22.3	21.8	22.0	20.0	19.7	20.3	20.3	20.4
Manufacturing	8.3	12.3	11.5	12.2	12.1	12.4	14.1	14.1	14.8	14.8	13.0	13.3	12.8	12.4	12.3
Durable goods	8.2	13.3	12.2	13.1	12.8	13.3	16.0	16.0	17.0	17.1	14.7	14.7	14.1	13.5	13.5
Nondurable goods	8.4	10.8	10.4	11.1	11.0	11.0	11.2	11.2	11.4	11.4	10.5	11.4	11.1	10.8	10.5
Transportation and public utilities	5.2	6.8	6.4	6.8	6.6	7.1	7.9	7.9	8.3	8.0	7.8	8.0	7.8	7.7	7.0
Wholesale and retail trade	8.1	10.0	10.2	9.7	10.3	10.0	10.4	10.4	10.6	11.0	10.8	10.9	11.2	10.4	10.1
Finance and service industries	5.9	6.9	6.8	6.9	7.0	7.0	7.1	7.1	7.7	7.9	7.6	7.3	7.2	7.3	7.5
Government workers	4.7	4.9	4.9	4.7	4.7	4.7	4.9	4.9	5.1	5.1	5.7	6.0	5.9	6.1	5.8
Agricultural wage and salary workers	12.1	14.7	18.1	15.0	14.1	14.2	13.3	13.3	15.6	16.5	16.0	16.4	16.3	17.2	17.0

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

6. Unemployment rates by sex and age, seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Total, 16 years and over	7.6	9.7	9.4	9.5	9.8	9.9	10.2	10.5	10.7	10.8	10.4	10.4	10.3	10.2	10.1
16 to 24 years	14.9	17.8	17.4	17.3	17.9	18.2	18.3	18.7	19.0	18.9	18.3	18.3	18.1	18.1	18.1
16 to 19 years	19.6	23.2	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7	22.2	23.5	23.4	23.0
16 to 17 years	21.4	24.9	25.1	23.6	25.8	25.8	26.5	26.1	26.3	27.4	24.1	23.4	25.1	26.3	26.2
18 to 19 years	18.4	22.1	21.4	22.0	22.6	22.5	22.0	22.9	22.8	22.7	21.7	21.5	22.7	21.8	21.1
20 to 24 years	12.3	14.9	14.5	14.5	14.7	15.3	15.3	15.8	16.3	16.0	16.1	16.3	15.4	15.4	15.6
25 years and over	5.4	7.4	7.1	7.3	7.5	7.5	7.9	8.1	8.3	8.6	8.1	8.2	8.1	8.0	7.9
25 to 54 years	5.8	7.9	7.6	7.7	8.0	8.0	8.6	8.7	8.9	9.1	8.7	8.7	8.7	8.5	8.5
55 years and over	3.6	5.0	4.9	5.1	5.3	5.2	5.2	5.5	5.7	5.8	5.4	5.4	5.4	5.6	5.3
Men, 16 years and over	7.4	9.9	9.5	9.7	10.0	10.2	10.7	10.9	11.1	11.2	10.6	10.8	10.7	10.7	10.6
16 to 24 years	15.7	19.1	18.6	18.7	19.2	19.5	20.0	20.2	20.6	20.5	19.7	19.8	19.5	19.4	19.7
16 to 19 years	20.1	24.4	23.8	24.3	25.2	25.1	25.4	25.6	25.7	25.8	23.9	23.6	25.3	24.4	23.9
16 to 17 years	22.0	26.4	26.3	25.4	27.7	27.4	29.0	28.8	28.2	29.0	24.4	23.6	26.0	27.0	27.4
18 to 19 years	18.8	23.1	22.2	23.7	23.4	23.4	23.0	23.4	24.1	24.0	23.5	23.4	24.8	22.8	22.0
20 to 24 years	13.2	16.4	15.8	15.9	16.2	16.6	17.3	17.4	18.0	17.8	17.6	17.8	16.6	17.0	17.6
25 years and over	5.1	7.5	7.0	7.4	7.5	7.7	8.2	8.5	8.6	8.8	8.2	8.5	8.4	8.5	8.2
25 to 54 years	5.5	8.0	7.5	7.9	8.1	8.2	9.0	9.1	9.2	9.4	8.7	9.1	9.0	8.9	8.8
55 years and over	3.5	5.1	4.7	4.9	4.9	5.5	5.5	6.0	6.2	6.3	5.8	5.7	5.8	6.3	5.8
Women, 16 years and over	7.9	9.4	9.3	9.2	9.6	9.5	9.6	9.9	10.2	10.3	10.0	9.8	9.8	9.6	9.5
16 to 24 years	14.0	16.2	16.0	15.6	16.4	16.8	16.3	17.0	17.2	17.1	16.7	16.6	16.6	16.5	16.2
16 to 19 years	19.0	21.9	21.8	20.6	22.6	22.5	22.1	22.5	22.6	23.0	21.5	20.7	21.5	22.4	21.9
16 to 17 years	20.7	23.2	23.6	21.6	23.8	23.9	23.8	22.9	24.2	25.6	23.7	23.2	24.2	25.5	24.7
18 to 19 years	17.9	21.0	20.6	20.2	21.9	21.5	20.9	22.3	21.4	21.3	19.8	19.3	20.5	20.7	20.2
20 to 24 years	11.2	13.2	12.9	13.0	13.1	13.7	13.1	14.0	14.4	14.0	14.2	14.5	14.1	13.5	13.3
25 years and over	5.9	7.3	7.3	7.2	7.4	7.1	7.5	7.6	7.9	8.2	7.9	7.7	7.7	7.4	7.6
25 to 54 years	6.3	7.7	7.8	7.5	7.7	7.7	8.0	8.2	8.5	8.8	8.7	8.2	8.3	7.9	8.2
55 years and over	3.8	4.8	5.0	5.4	5.8	4.8	4.8	4.8	4.9	5.1	4.8	4.9	4.7	4.5	4.6

7. Unemployed persons by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Job losers	4,267	6,268	5,938	6,181	6,323	6,446	6,979	7,325	7,369	7,295	6,704	6,809	6,823	6,750	6,766
On layoff	1,430	2,127	1,956	2,097	2,126	2,218	2,625	2,519	2,531	2,468	2,131	2,024	1,945	1,948	1,943
Other job losers	2,837	4,141	3,982	4,084	4,197	4,228	4,354	4,806	4,838	4,827	4,573	4,784	4,878	4,803	4,823
Job leavers	923	840	864	826	819	814	786	803	794	826	839	848	901	815	801
Reentrants	2,102	2,384	2,393	2,378	2,478	2,440	2,437	2,322	2,546	2,529	2,623	2,491	2,426	2,488	2,365
New entrants	981	1,185	1,159	1,091	1,230	1,304	1,303	1,296	1,244	1,288	1,174	1,161	1,155	1,245	1,251
PERCENT DISTRIBUTION															
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	51.6	58.7	57.3	59.0	58.3	58.6	60.7	62.4	61.5	60.6	59.1	60.2	60.4	59.7	60.5
On layoff	17.3	19.9	18.9	20.0	19.6	20.2	22.8	21.4	21.2	20.5	18.8	17.9	17.2	17.2	17.4
Other job losers	34.3	38.8	38.5	39.0	38.7	38.4	37.8	40.9	40.5	40.1	40.3	42.3	43.1	42.5	43.1
Job leavers	11.2	7.9	8.3	7.9	7.5	7.4	6.8	6.8	6.6	6.9	7.4	7.5	8.0	7.2	7.2
Reentrants	25.4	22.3	23.1	22.7	22.8	22.2	21.2	19.8	21.3	21.8	23.1	22.0	21.5	22.0	21.1
New entrants	11.9	11.1	11.2	10.4	11.3	11.9	11.3	11.0	10.4	10.7	10.4	10.3	10.2	11.0	11.2
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	3.9	5.7	5.4	5.6	5.7	5.8	6.3	6.6	6.6	6.6	6.1	6.2	6.2	6.1	6.1
Job leavers	.8	.8	.8	.7	.7	.7	.7	.7	.7	.7	.8	.8	.8	.7	.7
Reentrants	1.9	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.3	2.4	2.4	2.3	2.2	2.2	2.1
New entrants	.9	1.1	1.1	1.0	1.1	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.0	1.1	1.1

8. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Less than 5 weeks	3,449	3,883	3,871	3,606	3,959	3,933	4,004	3,930	3,963	4,019	3,536	3,731	3,440	3,547	3,519
5 to 14 weeks	2,539	3,311	3,281	3,398	3,249	3,346	3,549	3,511	3,549	3,460	3,328	3,106	3,140	3,154	2,979
15 weeks and over	2,285	3,485	3,257	3,517	3,569	3,637	3,856	4,167	4,524	4,732	4,634	4,618	4,615	4,356	4,517
15 to 26 weeks	1,122	1,708	1,633	1,683	1,780	1,808	1,830	1,951	2,191	2,125	1,928	1,928	1,875	1,662	1,731
27 weeks and over	1,162	1,776	1,634	1,834	1,789	1,829	2,026	2,216	2,333	2,607	2,706	2,689	2,740	2,694	2,786
Mean duration in weeks	13.7	15.6	14.9	16.3	15.6	16.1	16.6	17.1	17.3	18.0	19.4	19.0	19.1	19.0	20.4
Median duration in weeks	6.9	8.7	8.6	9.8	8.3	8.3	9.4	9.6	10.0	10.1	11.5	9.6	10.3	11.3	12.3

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 189,000 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.

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 12-17 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 reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). 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.

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.

The Diffusion Index, introduced in table 17 of the May issue, represents the percent of 186 nonagricultural industries in which employment was rising over the indicated period. One-half of the industries with unchanged employment are counted as rising. In line with Bureau practice, data for the 3-, 6-, and 9-month spans are seasonally adjusted, while that for the 12-month span is unadjusted. The diffusion index is useful for measuring the dispersion of economic gains or losses and is also an economic indicator.

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 May 1983 data, published in the July 1983 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Earlier comparable unadjusted and seasonally adjusted data are published in a *Supplement to Employment and Earnings* (unadjusted data from April 1977 through February 1983 and seasonally adjusted data from January 1974 through February 1983) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

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).

9. Employment by industry, selected years, 1950-82

[Nonagricultural payroll data, in thousands]

Year	Total	Private sector	Goods-producing				Service-producing							Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate	Services	Total	Federal	State and local
									Total	Wholesale trade	Retail trade					
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	9,386	2,635	6,751	1,888	5,357	6,026	1,928	4,098
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	10,535	2,926	7,610	2,298	6,240	6,914	2,187	4,727
1960 ¹	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	11,391	3,143	8,248	2,629	7,378	8,353	2,270	6,083
1964	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	12,160	3,337	8,823	2,911	8,660	9,596	2,348	7,248
1965	60,765	50,589	21,926	632	3,232	18,062	38,839	4,036	12,716	3,466	9,250	2,977	9,036	10,074	2,378	7,696
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	13,245	3,597	9,648	3,058	9,498	10,784	2,564	8,220
1967	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	13,606	3,689	9,917	3,185	10,045	11,391	2,719	8,672
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	14,099	3,779	10,320	3,337	10,567	11,839	2,737	9,102
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	14,706	3,907	10,798	3,512	11,169	12,195	2,758	9,437
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	15,040	3,993	11,047	3,645	11,548	12,554	2,731	9,823
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	15,352	4,001	11,351	3,772	11,797	12,881	2,696	10,185
1972	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	15,949	4,113	11,836	3,908	12,276	13,334	2,684	10,649
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	16,607	4,277	12,329	4,045	12,857	13,732	2,663	11,068
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	16,987	4,433	12,554	4,148	13,441	14,170	2,724	11,446
1975	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	17,060	4,415	12,645	4,165	13,892	14,686	2,748	11,937
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	17,755	4,546	13,209	4,271	14,551	14,871	2,733	12,138
1977	82,471	67,344	24,346	813	3,851	19,582	58,125	4,713	18,516	4,708	13,808	4,467	15,303	15,127	2,727	12,399
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	19,542	4,969	14,573	4,724	16,252	15,672	2,753	12,919
1979	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	20,192	5,204	14,989	4,975	17,112	15,947	2,773	13,147
1980	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	20,310	5,275	15,035	5,180	17,890	16,241	2,866	13,375
1981r	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	20,547	5,358	15,189	5,298	18,619	16,031	2,772	13,259
1982r	89,596	73,793	23,907	1,143	3,911	18,853	65,689	5,081	20,401	5,280	15,122	5,340	19,064	15,803	2,739	13,064

¹Data include Alaska and Hawaii beginning in 1959.

r = revised.

10. Employment by State

[Nonagricultural payroll data, in thousands]

State	April 1982	March 1983	April 1983 ^p	State	April 1982	March 1983	April 1983 ^p
Alabama	1,326.8	1,303.9	1,309.2	Montana	270.6	266.4	267.2
Alaska	187.8	198.0	203.9	Nebraska	603.9	583.2	587.2
Arizona	1,046.0	1,043.1	1,043.3	Nevada	403.0	404.7	409.5
Arkansas	724.9	719.6	728.6	New Hampshire	386.3	385.0	387.5
California	9,838.0	9,738.5	9,788.6	New Jersey	3,063.8	3,032.5	3,056.8
Colorado	1,314.6	1,310.8	1,313.3	New Mexico	474.0	472.4	473.6
Connecticut	1,424.5	1,407.7	1,419.7	New York	7,217.9	7,132.6	7,172.2
Delaware	258.3	254.7	258.3	North Carolina	2,353.3	2,320.1	2,337.3
District of Columbia	594.8	591.1	594.0	North Dakota	246.5	248.1	249.6
Florida	3,796.1	3,854.5	3,853.6	Ohio	4,146.1	4,036.2	4,076.5
Georgia	2,204.7	2,209.2	2,227.1	Oklahoma	1,245.7	1,196.1	1,196.5
Hawaii	401.5	400.2	400.3	Oregon	960.0	938.6	943.1
Idaho	309.2	309.0	313.0	Pennsylvania	4,624.4	4,400.4	4,443.2
Illinois	4,607.1	4,462.5	4,472.1	Rhode Island	387.6	38.55	389.3
Indiana	2,025.3	1,953.0	1,971.0	South Carolina	1,181.1	1,155.3	1,168.1
Iowa	1,041.7	1,005.8	1,012.4	South Dakota	229.4	225.8	228.4
Kansas	932.6	898.4	905.9	Tennessee	1,708.0	1,649.5	1,662.5
Kentucky	1,176.5	1,151.6	1,161.3	Texas	6,329.7	6,162.4	6,162.1
Louisiana	1,624.0	1,588.4	1,590.2	Utah	559.2	555.1	557.1
Maine	403.4	396.8	399.9	Vermont	198.4	201.7	200.3
Maryland	1,673.6	1,640.6	1,659.1	Virginia	2,126.2	2,115.7	2,130.8
Massachusetts	2,630.3	2,587.2	2,611.7	Washington	1,572.7	1,560.6	1,575.8
Michigan	3,189.7	3,129.7	3,146.8	West Virginia	612.8	582.0	582.3
Minnesota	1,711.3	1,656.6	1,675.3	Wisconsin	1,857.3	1,805.9	1,820.6
Mississippi	800.0	782.7	787.5	Wyoming	215.8	205.2	206.4
Missouri	1,926.5	1,884.0	1,903.1	Virgin Islands	36.6	36.0	36.0

¹Data not available.

p = preliminary.

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

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P
TOTAL	91,156	89,596	90,016	89,775	89,450	89,264	89,235	88,938	88,785	88,665	88,885	88,746	88,814	89,101	89,461
PRIVATE SECTOR	75,126	73,793	74,148	73,939	73,781	73,579	73,451	73,158	73,013	72,907	73,132	73,004	73,090	73,377	73,706
GOODS-PRODUCING	25,497	23,907	24,226	24,001	23,843	23,672	23,530	23,287	23,131	23,061	23,186	23,049	23,030	23,159	23,347
Mining	1,139	1,143	1,177	1,150	1,125	1,113	1,100	1,082	1,066	1,053	1,037	1,014	1,006	997	1,004
Construction	4,188	3,911	3,971	3,933	3,916	3,893	3,875	3,847	3,843	3,815	3,905	3,790	3,757	3,786	3,866
Manufacturing	20,170	18,853	19,078	18,918	18,802	18,666	18,555	18,358	18,222	18,193	18,244	18,245	18,267	18,376	18,477
Production workers	14,020	12,790	12,980	12,843	12,751	12,634	12,542	12,368	12,252	12,241	12,291	12,303	12,323	12,435	12,551
Durable goods	12,109	11,100	11,289	11,169	11,095	10,961	10,862	10,685	10,577	10,559	10,594	10,608	10,617	10,689	10,784
Production workers	8,294	7,350	7,511	7,408	7,350	7,234	7,150	6,992	6,900	6,892	6,931	6,949	6,961	7,035	7,131
Lumber and wood products	666	603	602	601	600	601	603	605	608	614	625	631	638	651	661
Furniture and fixtures	464	433	434	433	430	433	428	426	427	429	430	427	433	440	444
Stone, clay, and glass products	638	578	586	580	578	573	570	565	559	554	557	557	559	565	571
Primary metal industries	1,122	922	947	929	909	890	869	840	823	816	817	810	816	820	837
Fabricated metal products	1,590	1,435	1,460	1,442	1,432	1,416	1,402	1,378	1,362	1,359	1,364	1,364	1,362	1,369	1,380
Machinery, except electrical	2,498	2,267	2,350	2,298	2,256	2,213	2,184	2,122	2,088	2,066	2,048	2,042	2,030	2,031	2,060
Electric and electronic equipment	2,094	2,016	2,033	2,025	2,016	2,008	1,992	1,976	1,975	1,957	1,974	1,981	1,988	1,999	2,007
Transportation equipment	1,898	1,744	1,766	1,756	1,770	1,773	1,724	1,691	1,661	1,696	1,710	1,729	1,723	1,743	1,752
Instruments and related products	730	716	723	720	717	712	710	705	700	695	695	693	691	690	690
Miscellaneous manufacturing	408	386	388	385	387	382	380	377	374	373	374	374	377	381	382
Nondurable goods	8,061	7,753	7,789	7,749	7,707	7,705	7,693	7,673	7,645	7,634	7,650	7,637	7,650	7,687	7,693
Production workers	5,727	5,440	5,469	5,435	5,401	5,400	5,392	5,376	5,352	5,349	5,360	5,354	5,362	5,400	5,420
Food and kindred products	1,671	1,638	1,641	1,635	1,639	1,636	1,633	1,636	1,632	1,626	1,626	1,620	1,619	1,633	1,627
Tobacco manufactures	70	68	68	68	67	67	66	66	63	69	69	67	67	66	66
Textile mill products	823	750	758	744	741	736	734	733	727	727	726	726	730	733	736
Apparel and other textile products	1,244	1,164	1,170	1,167	1,141	1,151	1,149	1,148	1,141	1,140	1,150	1,148	1,143	1,149	1,149
Paper and allied products	689	662	664	661	660	657	659	653	654	653	653	652	652	654	656
Printing and publishing	1,266	1,269	1,272	1,268	1,266	1,267	1,266	1,265	1,263	1,263	1,266	1,265	1,269	1,274	1,277
Chemicals and allied products	1,109	1,079	1,084	1,079	1,073	1,074	1,070	1,066	1,064	1,059	1,057	1,056	1,056	1,058	1,055
Petroleum and coal products	214	201	201	200	200	200	202	201	200	199	200	199	199	199	197
Rubber and miscellaneous plastics products	737	701	708	705	700	698	696	689	685	685	688	691	699	707	716
Leather and leather products	238	221	223	222	220	219	218	216	216	213	215	214	216	214	214
SERVICE-PRODUCING	65,659	65,689	65,790	65,774	65,607	65,592	65,705	65,651	65,654	65,604	65,699	65,697	65,784	65,942	66,114
Transportation and public utilities	5,165	5,081	5,117	5,099	5,075	5,056	5,054	5,033	5,019	5,008	4,979	4,966	4,963	4,988	4,994
Wholesale and retail trade	20,547	20,401	20,454	20,454	20,438	20,410	20,380	20,344	20,320	20,256	20,355	20,343	20,350	20,329	20,344
Wholesale trade	5,358	5,280	5,311	5,293	5,279	5,265	5,252	5,237	5,212	5,192	5,185	5,181	5,176	5,180	5,184
Retail trade	15,189	15,122	15,143	15,161	15,159	15,145	15,128	15,107	15,108	15,064	15,170	15,162	15,174	15,149	15,160
Finance, insurance, and real estate	5,298	5,340	5,331	5,339	5,342	5,344	5,351	5,350	5,356	5,367	5,374	5,384	5,391	5,423	5,418
Services	18,619	19,064	19,020	19,046	19,083	19,097	19,136	19,144	19,187	19,215	19,238	19,262	19,356	19,478	19,603
Government	16,031	15,803	15,868	15,836	15,669	15,685	15,784	15,780	15,772	15,758	15,753	15,742	15,724	15,724	15,755
Federal	2,772	2,739	2,731	2,738	2,737	2,739	2,735	2,742	2,746	2,747	2,748	2,742	2,742	2,749	2,749
State and local	13,259	13,064	13,137	13,098	12,932	12,946	13,049	13,038	13,026	13,011	13,005	13,000	12,982	12,975	13,006

p = preliminary.

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.

12. Hours and earnings, by industry division, selected years, 1950-82

[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
	Private sector			Mining			Construction			Manufacturing		
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
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
1960 ¹	80.67	38.6	2.09	105.04	40.4	2.60	112.57	36.7	3.07	89.72	39.7	2.26
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	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	219.91	35.7	6.16	365.07	43.0	8.49	342.99	37.0	9.27	269.34	40.2	6.70
1980	235.10	35.3	6.66	397.06	43.3	9.17	367.78	37.0	9.94	288.62	39.7	7.27
1981r	255.20	35.2	7.25	439.75	43.7	10.04	299.26	36.9	10.82	318.00	39.8	7.99
1982r	266.92	34.8	7.67	459.23	42.6	10.78	426.45	36.7	11.62	330.65	38.9	8.50
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1950				\$44.55	40.5	\$1.100	\$50.52	37.7	\$1.340			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1960 ¹				66.01	38.6	1.71	75.14	37.2	2.02			
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	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	325.58	39.9	8.16	164.96	32.6	5.06	190.77	36.2	5.27	175.27	32.7	5.36
1980	351.25	39.6	8.87	176.46	32.2	5.48	209.60	36.2	5.79	190.71	32.6	5.85
1981r	382.18	39.4	9.70	190.62	32.2	5.92	229.05	36.3	6.31	208.97	32.6	6.41
1982r	401.70	39.0	10.30	198.10	31.9	6.21	245.44	36.2	6.78	224.94	32.6	6.90

¹ Data include Alaska and Hawaii beginning in 1959.

r = revised.

13. 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	Annual average		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^p	May ^p
PRIVATE SECTOR	35.2	34.8	35.0	34.9	34.9	34.8	34.8	34.7	34.7	34.8	35.1	34.5	34.8	34.9	35.1
MANUFACTURING	39.8	38.9	39.1	39.1	39.1	39.0	38.8	38.9	39.0	39.0	39.7	39.2	39.5	40.1	40.0
Overtime hours	2.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.6	2.9	2.7
Durable goods	40.2	39.3	39.5	39.6	39.6	39.4	39.1	39.2	39.3	39.3	40.1	39.7	39.9	40.5	40.4
Overtime hours	2.8	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.8	2.6
Lumber and wood products	38.7	38.0	38.2	38.4	38.5	38.2	38.4	38.1	38.7	38.8	40.5	39.5	39.5	40.0	40.0
Furniture and fixtures	38.4	37.2	37.3	37.6	37.4	37.8	37.5	37.5	37.6	37.8	38.6	37.9	38.3	39.3	39.3
Stone, clay, and glass products	40.6	40.0	40.1	40.3	40.5	40.2	40.2	40.2	40.2	40.1	41.4	40.5	40.6	41.0	41.4
Primary metal industries	40.5	38.6	38.5	38.8	38.8	38.6	37.8	38.2	38.3	38.8	38.9	39.1	39.4	39.9	40.2
Fabricated metal products	40.3	39.2	39.4	39.4	39.4	39.2	38.9	39.0	39.2	39.2	39.9	39.6	39.7	40.5	40.4
Machinery, except electrical	40.9	39.7	39.8	39.7	39.8	39.4	39.2	39.3	39.3	39.3	39.6	39.4	39.7	40.2	40.0
Electric and electronic equipment	40.0	39.3	39.4	39.4	39.6	39.3	39.0	39.2	39.3	39.4	39.9	39.5	39.8	40.40	40.5
Transportation equipment	40.9	40.5	40.9	41.3	40.9	40.6	40.1	40.4	40.9	40.1	41.6	41.2	41.7	42.3	41.6
Instruments and related products	40.4	39.8	40.0	40.1	40.1	40.0	39.9	39.6	39.4	39.7	40.4	39.7	40.0	40.5	40.5
Nondurable goods	39.1	38.4	38.5	38.5	38.5	38.5	38.6	38.5	38.6	38.6	39.1	38.5	39.0	39.5	39.3
Overtime hours	2.8	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.6	2.6	2.7	3.0	2.9
Food and kindred products	39.7	39.4	39.4	39.4	39.4	39.2	39.4	39.5	39.4	39.1	39.3	39.0	39.2	39.6	39.2
Textile mill products	39.6	37.5	37.7	37.7	37.7	38.1	38.1	38.3	38.8	38.9	39.7	39.0	39.6	40.6	40.5
Apparel and other textile products	35.7	34.7	34.9	35.1	35.1	35.0	35.1	35.1	35.0	35.1	36.6	35.2	35.6	36.2	36.1
Paper and allied products	42.5	41.8	41.8	41.9	41.9	41.7	41.6	41.7	41.7	41.7	41.8	41.4	42.1	42.4	42.5
Printing and publishing	37.3	37.1	37.0	37.0	37.0	36.9	37.0	37.1	37.1	37.1	37.5	37.1	37.4	37.7	37.4
Chemicals and allied products	41.6	40.9	40.9	40.9	40.8	40.9	41.0	40.8	40.7	40.9	41.0	41.0	41.2	41.5	41.7
Petroleum and coal products	43.2	43.9	43.8	44.0	43.4	44.0	44.2	43.8	44.1	44.4	44.5	44.4	44.9	43.5	43.5
Leather and leather products	36.7	35.6	35.7	35.8	36.0	36.0	35.7	35.4	35.8	35.8	36.3	34.9	36.0	37.0	36.7
TRANSPORTATION AND PUBLIC UTILITIES	39.4	39.0	39.1	39.1	38.9	39.2	38.8	38.8	38.9	38.9	38.6	38.6	38.8	38.8	38.9
WHOLESALE AND RETAIL TRADE	32.2	31.9	32.0	31.9	32.0	32.0	31.9	31.9	31.8	32.1	31.9	31.4	31.7	31.7	32.0
WHOLESALE TRADE	38.5	38.4	38.4	38.4	38.5	38.5	38.4	38.4	38.4	38.4	38.5	38.2	38.4	38.5	38.7
RETAIL TRADE	30.1	29.9	30.0	29.9	29.9	29.9	29.9	29.9	29.8	30.1	29.9	29.3	29.7	29.6	30.0
SERVICES	32.6	32.6	32.7	32.6	32.6	32.6	32.8	32.6	32.6	32.6	32.9	32.5	32.7	32.7	32.9

p = preliminary.

NOTE: Miscellaneous manufacturing (a major manufacturing group, durable goods) and rubber and miscellaneous plastics products (a major manufacturing group, nondurable goods) are no longer shown. This is because the seasonal component in these is small relative to the trend-cycle, or irregular com-

ponents, or both, and consequently cannot be precisely separated.

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.

14. 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		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. P	May P
PRIVATE SECTOR	\$7.25	\$7.67	\$7.64	\$7.64	\$7.68	\$7.70	\$7.76	\$7.79	\$7.81	\$7.82	\$7.90	\$7.92	\$7.90	\$7.93	\$7.98
Seasonally adjusted	(¹)	(¹)	7.65	7.67	7.70	7.73	7.73	7.76	7.78	7.82	7.88	7.91	7.91	7.95	7.99
MINING	10.04	10.78	10.63	10.78	10.86	10.88	10.99	10.96	11.01	11.03	11.21	11.25	11.19	11.26	11.28
CONSTRUCTION	10.82	11.62	11.51	11.47	11.59	11.66	11.74	11.88	11.72	11.96	11.95	12.00	11.95	11.90	11.85
MANUFACTURING	7.99	8.50	8.46	8.50	8.55	8.51	8.59	8.56	8.61	8.68	8.71	8.75	8.74	8.77	8.78
Durable goods	8.54	9.06	9.02	9.07	9.12	9.09	9.17	9.13	9.17	9.24	9.26	9.31	9.29	9.31	9.33
Lumber and wood products	6.99	7.46	7.36	7.54	7.59	7.56	7.65	7.57	7.59	7.68	7.68	7.72	7.68	7.73	7.79
Furniture and fixtures	5.91	6.31	6.22	6.29	6.33	6.37	6.40	6.40	6.43	6.46	6.49	6.50	6.51	6.52	6.52
Stone, clay, and glass products	8.27	8.86	8.79	8.85	8.93	8.92	9.03	9.03	9.04	9.08	9.10	9.10	9.13	9.16	9.23
Primary metal industries	10.81	11.33	11.22	11.30	11.36	11.48	11.54	11.41	11.49	11.49	11.56	11.53	11.24	11.24	11.29
Fabricated metal products	8.19	8.78	8.78	8.82	8.85	8.85	8.90	8.85	8.90	8.96	8.98	9.04	9.05	9.08	9.08
Machinery, except electrical	8.81	9.29	9.27	9.29	9.32	9.34	9.41	9.36	9.38	9.43	9.40	9.44	9.46	9.48	9.55
Electric and electronic equipment	7.62	8.21	8.10	8.14	8.23	8.30	8.37	8.41	8.45	8.51	8.53	8.56	8.60	8.60	8.59
Transportation equipment	10.39	11.12	11.09	11.21	11.25	11.17	11.24	11.29	11.43	11.40	11.49	11.49	11.53	11.52	
Instruments and related products	7.42	8.10	8.01	8.08	8.13	8.17	8.24	8.26	8.31	8.38	8.42	8.48	8.47	8.46	8.47
Miscellaneous manufacturing	5.97	6.43	6.39	6.42	6.41	6.40	6.50	6.50	6.56	6.67	6.72	6.73	6.75	6.76	6.81
Nondurable goods	7.18	7.73	7.66	7.70	7.77	7.74	7.84	7.80	7.88	7.95	7.97	7.99	8.00	8.03	8.03
Food and kindred products	7.44	7.89	7.93	7.91	7.88	7.86	7.91	7.88	8.00	8.06	8.09	8.11	8.16	8.20	8.16
Tobacco manufactures	8.88	9.78	9.93	10.36	10.42	9.51	9.55	9.50	10.16	9.63	9.87	9.96	10.43	10.61	10.66
Textile mill products	5.52	5.83	5.79	5.80	5.81	5.83	5.86	5.88	5.92	6.04	6.08	6.10	6.11	6.14	6.15
Apparel and other textile products	4.97	5.20	5.18	5.20	5.19	5.20	5.23	5.21	5.24	5.28	5.33	5.33	5.33	5.35	5.34
Paper and allied products	8.60	9.32	9.14	9.27	9.41	9.45	9.63	9.53	9.60	9.65	9.65	9.65	9.67	9.73	9.78
Printing and publishing	8.19	8.75	8.62	8.68	8.75	8.81	8.91	8.89	8.92	9.00	8.97	8.99	9.03	9.04	9.06
Chemicals and allied products	9.12	9.96	9.81	9.94	10.00	10.01	10.19	10.22	10.26	10.32	10.34	10.41	10.39	10.43	10.52
Petroleum and coal products	11.38	12.46	12.52	12.53	12.42	12.42	12.61	12.57	12.68	12.71	13.16	13.25	13.28	13.27	13.23
Rubber and miscellaneous plastics products	7.17	7.65	7.57	7.66	7.67	7.66	7.78	7.74	7.81	7.91	7.91	7.91	7.92	7.95	7.92
Leather and leather products	4.99	5.32	5.32	5.35	5.29	5.33	5.41	5.39	5.41	5.44	5.50	5.50	5.52	5.52	5.52
TRANSPORTATION AND PUBLIC UTILITIES	9.70	10.30	10.17	10.20	10.29	10.42	10.46	10.48	10.59	10.62	10.69	10.72	10.68	10.71	10.72
WHOLESALE AND RETAIL TRADE	5.92	6.21	6.19	6.18	6.20	6.20	6.245	6.27	6.30	6.27	6.42	6.45	6.43	6.45	6.47
WHOLESALE TRADE	7.56	8.02	7.99	7.96	8.03	8.07	8.10	8.13	8.14	8.20	8.31	8.28	8.27	8.34	8.39
RETAIL TRADE	5.25	5.47	5.46	5.46	5.47	5.46	5.50	5.53	5.56	5.54	5.65	5.69	5.68	5.69	5.71
FINANCE, INSURANCE, AND REAL ESTATE	6.31	6.78	6.76	6.71	6.77	6.86	6.90	6.97	7.00	7.01	7.19	7.22	7.19	7.23	7.32
SERVICES	6.41	6.90	6.85	6.84	6.87	6.980	6.99	7.04	7.08	7.12	7.18	7.19	7.17	7.20	7.23

¹ Not available.
p = preliminary.

benchmark and updated seasonal adjustment factors. Because of these revisions, establishment data in this table may differ from data published earlier.

NOTE: In accordance with usual practice, BLS has revised establishment survey data to reflect a new

15. Hourly Earnings Index, for production workers on private nonagricultural payrolls, by industry

[1977 = 100]

Industry	Not seasonally adjusted					Seasonally adjusted						
	May 1982	Mar. 1983	Apr. 1983 ^P	May 1983 ^P	Percent change from: May 1982 to May 1983	May 1982	Jan. 1983	Feb. 1983	Mar. 1983	Apr. 1983 ^P	May 1983 ^P	Percent change from: Apr. 1983 to May 1983
PRIVATE SECTOR (in current dollars)	147.4	153.3	153.9	154.6	4.9	147.5	152.7	153.4	153.4	153.9	154.7	0.5
Mining	156.5	164.0	165.5	166.1	6.1	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Construction	139.9	144.2	144.3	144.6		140.4	144.0	145.7	145.5	145.9	145.2	-.5
Manufacturing	151.6	156.9	157.0	157.4	3.8	151.8	156.5	157.3	157.1	157.0	157.6	.4
Transportation and public utilities	146.8	155.0	155.2	155.6	5.9	147.6	154.4	155.2	155.9	155.7	156.3	.4
Wholesale and retail trade	144.9	149.9	150.9	151.7	4.7	144.6	148.9	149.3	149.6	150.5	151.4	.6
Finance, insurance, and real estate	147.8	156.7	157.4	159.5	7.9	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Services	146.4	153.2	154.0	155.2	6.0	1146.4	152.2	152.4	152.6	153.8	155.2	.9
PRIVATE SECTOR (in constant dollars)	93.3	95.0	94.7	(²)	(²)	93.5	94.7	95.3	95.0	94.8	(²)	(²)

¹This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.

²Not available.
p = preliminary.

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.

16. 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		1982								1983				
	1981	1982	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P
PRIVATE SECTOR															
Current dollars	\$255.20	\$266.92	\$265.87	\$267.40	\$270.34	\$271.04	\$270.05	\$270.31	\$271.01	\$273.70	\$273.34	\$270.86	\$274.13	\$275.17	\$279.30
Seasonally adjusted	(¹)	(¹)	267.75	267.68	268.73	269.00	269.00	269.27	269.97	272.14	276.59	272.90	275.27	277.46	280.45
Constant (1977) dollars	.00	167.87	168.38	167.33	168.12	168.24	167.42	167.06	167.81	170.11	169.88	168.24	169.85	169.34	—
MINING	438.75	459.23	453.90	461.38	461.55	461.31	461.58	459.22	458.02	465.47	476.43	464.63	467.74	468.42	474.89
CONSTRUCTION	399.26	426.45	431.63	430.13	440.42	438.42	433.21	440.75	423.09	440.13	440.96	424.80	434.98	436.73	445.56
MANUFACTURING															
Current dollars	318.00	330.65	329.94	334.05	332.60	331.89	334.15	333.84	338.37	344.60	341.43	339.50	346.10	349.05	350.32
Constant (1977) dollars	.00	207.96	208.96	209.04	206.84	206.01	207.16	206.33	209.52	214.17	212.20	210.87	214.44	214.80	—
Durable goods	343.31	356.06	356.29	360.99	357.50	356.33	357.63	357.90	363.13	371.45	367.62	366.81	372.53	375.19	377.87
Lumber and wood products	270.51	283.48	283.36	295.57	292.97	293.33	296.06	289.93	292.97	293.70	300.29	299.54	302.59	307.65	314.72
Furniture and fixtures	226.94	234.73	230.76	237.76	232.31	242.70	241.28	243.20	244.34	250.00	243.38	243.10	251.29	254.28	254.93
Stone, clay, and glass products	335.76	354.40	354.24	361.08	362.56	362.15	365.72	366.62	366.12	366.83	364.91	358.54	368.85	375.56	383.97
Primary metal industries	437.81	437.34	429.73	439.57	437.36	439.68	438.52	431.30	440.07	450.41	450.84	450.82	4456.23	450.72	451.60
Fabricated metal products	330.06	344.18	345.93	349.27	344.27	346.04	345.32	346.04	350.66	359.30	354.71	354.37	361.10	365.02	366.83
Machinery except electrical	360.33	368.81	368.02	367.88	365.34	364.26	367.93	365.98	371.45	380.97	372.24	371.94	37.40	379.20	381.05
Electric and electronic equipment	304.80	322.65	318.33	321.53	321.79	324.53	325.59	329.67	334.62	342.95	338.64	336.41	344.00	344.86	347.04
Transportation equipment	424.95	450.36	455.80	466.34	456.75	446.80	443.98	457.25	467.21	474.35	468.54	469.94	480.28	484.26	482.69
Instruments and related products	299.77	322.38	319.60	324.82	321.95	325.98	328.78	327.10	331.57	338.55	337.64	335.81	340.49	339.25	342.19
Miscellaneous manufacturing	231.64	247.56	246.02	247.81	244.86	247.04	250.90	253.50	256.50	260.13	260.06	253.72	263.25	262.96	264.23
Nondurable goods	280.74	296.83	294.14	297.99	299.15	299.54	304.19	301.08	305.74	310.85	307.64	305.22	311.20	313.97	314.78
Food and kindred products	295.37	310.87	311.65	311.65	311.26	311.26	315.61	312.05	317.60	319.18	315.51	312.24	316.61	318.98	319.06
Tobacco manufactures	344.54	369.68	369.40	397.82	383.46	362.33	379.14	370.50	386.08	364.98	360.26	339.64	378.61	384.08	384.83
Textile mill products	218.59	218.63	218.86	220.40	216.13	223.29	223.85	227.56	231.47	236.77	237.12	236.07	242.57	246.83	249.69
Apparel and other textile products	177.43	180.44	180.78	184.60	183.73	183.56	183.57	183.91	184.97	186.38	188.68	185.48	190.28	191.53	192.77
Paper and allied products	365.50	389.58	380.22	389.34	392.40	393.12	402.53	397.40	402.24	410.13	402.41	396.62	406.14	409.63	412.72
Printing and publishing	305.49	324.63	317.22	320.29	322.88	326.85	331.45	329.82	332.72	341.10	332.79	330.83	338.63	338.10	337.94
Chemicals and allied products	379.39	407.36	400.25	406.55	406.00	407.41	419.83	416.98	420.66	427.25	421.87	425.77	428.07	432.85	437.64
Petroleum and coal products	491.62	546.99	549.63	553.83	546.48	546.48	572.49	555.59	564.26	563.05	572.46	573.73	584.32	581.23	576.83
Rubber and miscellaneous plastics products	288.95	302.94	300.53	307.17	303.73	304.10	308.09	304.18	309.28	319.56	317.19	314.03	321.55	325.16	323.14
Leather and leather products	183.13	189.39	191.52	196.35	190.97	192.95	192.06	189.73	194.22	196.38	196.90	190.30	197.06	201.48	204.24
TRANSPORTATION AND PUBLIC UTILITIES	382.18	401.70	395.61	400.86	403.37	410.55	405.85	406.62	413.01	416.30	409.43	411.65	413.32	414.48	414.86
WHOLESALE AND RETAIL TRADE	190.62	198.10	197.46	198.38	202.12	201.50	200.30	199.39	199.71	203.15	201.59	199.31	201.90	203.18	205.75
WHOLESALE TRADE	291.06	307.97	306.02	306.46	310.76	311.50	311.04	313.01	313.39	317.34	318.27	313.81	316.74	319.42	323.85
RETAIL TRADE	158.03	163.55	162.71	164.35	167.93	167.62	165.55	164.79	164.58	168.97	164.98	163.30	166.42	167.29	170.16
FINANCE, INSURANCE, AND REAL ESTATE	229.05	245.44	245.39	242.23	245.07	249.02	249.09	252.31	253.40	254.46	262.44	260.64	258.84	260.28	266.45
SERVICES	208.97	224.94	222.63	224.35	227.40	227.70	228.57	228.80	230.10	232.11	234.79	232.96	233.74	234.72	236.42

¹ Not available.

p = preliminary.

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.

17. Indexes of diffusion: industries in which employment increased

[In percent]

Time span	Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over	1981	57.8	52.4	52.2	65.6	60.2	58.9	62.6	49.5	42.2	33.3	29.3	30.9
1-month span	1982	28.5	45.4	36.0	39.0	47.6	32.8	38.4	37.1	34.1	29.3	32.0	42.2
	1983	56.5	45.7	62.4	P68.8	P69.9	—	—	—	—	—	—	—
Over	1981	58.3	54.6	59.1	65.9	67.5	66.7	60.5	50.5	33.3	30.1	24.5	23.4
3-month span	1982	25.3	28.8	32.0	34.1	32.5	33.6	27.2	27.2	26.1	25.5	24.7	40.6
	1983	45.4	55.1	P65.1	P75.8	—	—	—	—	—	—	—	—
Over	1981	68.5	65.3	63.7	69.4	64.2	58.6	45.7	34.4	29.6	24.2	25.0	22.0
6-month span	1982	20.2	23.7	25.3	29.8	26.1	26.1	23.4	19.1	21.2	26.1	26.6	35.8
	1983	P50.3	P64.0	—	—	—	—	—	—	—	—	—	—
Over	1981	74.5	71.2	70.4	58.1	47.6	41.4	34.9	29.8	27.4	23.7	25.3	23.1
12-month span	1982	22.0	20.7	18.0	19.4	18.3	20.7	20.7	22.8	24.2	P32.5	P37.9	—
	1983	—	—	—	—	—	—	—	—	—	—	—	—

p = preliminary.

NOTE: Figures are the percent of industries with employment rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. See the "Definitions" in this section.

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.

UNEMPLOYMENT INSURANCE DATA

NATIONAL UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from monthly reports of unemployment insurance activity prepared by State agencies. 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 unemployed. Persons not covered by unemployment insurance (about 10 percent 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.

18. Unemployment insurance and employment service operations

[All items except average benefits amounts are in thousands]

Item	1982									1983			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^p
All programs:													
Insured unemployment	4,760	4,388	4,327	4,495	4,398	4,283	4,391	4,635	5,074	5,459	^r 5,437	5,134	4,642
State unemployment insurance program: ¹													
Initial claims ²	2,347	1,989	2,399	2,655	2,358	2,342	2,443	2,661	3,080	3,143	2,065	2,075	1,874
Insured unemployment (average weekly volume)	4,067	3,729	3,707	3,912	3,831	3,712	3,828	4,156	4,581	4,923	4,759	4,40	3,906
Rate of insured unemployment	4.6	4.3	4.3	4.6	4.4	4.2	4.4	4.7	5.2	5.6	5.5	5.0	4.5
Weeks of unemployment compensated...	16,158	13,679	14,648	14,655	15,015	14,547	13,786	15,170	17,873	18,232	^r 16,895	19,529	14,986
Average weekly benefit amount for total unemployment	\$117.61	\$118.08	\$118.64	\$117.28	\$118.97	\$120.78	^r \$122.81	^r \$123.43	\$123.42	\$124.34	^r \$124.47	\$125.47	\$124.85
Total benefits paid	\$1,849,881	\$1,573,444	\$1,692,150	\$1,679,378	\$1,746,195	\$1,710,573	\$1,647,343	\$1,820,019	\$2,135,302	\$2,196,641	\$2,052,415	\$2,367,752	\$1,817,539
State unemployment insurance program: ¹ (Seasonally adjusted data)													
Initial claims ²	2,442	2,379	2,528	2,317	2,814	2,902	2,688	2,680	2,586	2,187	^r 2,138	2,148	1,952
Insured unemployment (average weekly volume)	3,939	3,925	3,995	3,959	4,137	4,446	4,680	4,618	4,355	3,980	3,979	3,884	3,774
Rate of insured unemployment	4.5	4.5	4.6	4.5	4.7	5.1	5.3	5.3	5.0	4.6	4.6	4.5	4.3
Unemployment compensation for ex-servicemen: ³													
Initial claims ¹	9	8	10	10	11	11	10	17	24	21	16	18	15
Insured unemployment (average weekly volume)	10	9	8	7	7	8	9	14	26	37	37	34	30
Weeks of unemployment compensated...	37	31	29	25	24	25	28	33	90	132	^r 143	156	117
Total benefits paid	\$4,013	\$3,395	\$3,314	\$2,821	\$2,793	\$2,900	\$3,366	\$4,006	\$11,191	\$16,541	^r \$18,032	\$19,588	\$14,776
Unemployment compensation for Federal civilian employees: ⁴													
Initial claims	13	11	14	13	12	13	16	14	15	16	10	11	10
Insured unemployment (average weekly volume)	33	29	28	29	27	26	28	31	33	35	33	31	26
Weeks of unemployment compensated...	146	120	123	120	118	111	110	126	146	142	131	146	109
Total benefits paid	\$16,806	\$13,526	\$13,922	\$13,445	\$13,140	\$12,303	\$12,144	\$14,023	\$16,114	\$16,090	^r \$15,083	\$16,871	\$12,422
Railroad unemployment insurance:													
Applications	5	5	36	68	68	14	20	17	17	20	7	7,628	94
Insured unemployment (average weekly volume)	57	44	44	55	55	61	82	81	83	102	72	65	79
Number of payments	130	95	93	100	100	137	159	162	172	219	158	169	172
Average amount of benefit payment	\$209.48	\$200.75	\$199.15	\$202.54	\$202.54	\$216.14	\$212.35	\$216.55	\$217.00	\$220.32	\$214.54	\$213.44	\$203.87
Total benefits paid	\$26,262	\$19,110	\$18,574	\$17,998	\$17,998	\$31,123	\$31,638	\$35,061	\$39,500	\$44,514	\$33,100	\$36,243	\$27,783
Employment service: ⁵													
New applications and renewals			10,965			14,320						8,377	
Nonfarm placements			1,902			2,804						1,184	

¹ Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

² Excludes transition claims under State programs.

³ Excludes data on claims and payments made jointly with other programs.

⁴ Excludes data or claims and payments made jointly with State programs.

⁵ Cumulative total for fiscal year (October 1-September 30). Data computed quarterly.

NOTE: Data for Puerto Rico and the Virgin Islands included. Dashes indicate data not available.

p = preliminary.

r = revised.

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. It introduced a CPI for All Urban Consumers, covering 80 percent of the total noninstitutional population, and revised the CPI for Urban Wage Earners and Clerical Workers, covering about half the new index population. The All Urban Consumers index covers 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, doctors' and dentists' 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. Data are collected from more than 24,000 retail establishments and 24,000 tenants 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 products 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

Regional CPI's cross classified by population size were introduced in the May 1978 *Review*. These indexes 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 are published bimonthly. (See table 20.)

For details concerning the 1978 revision of the CPI, see *The Consumer Price Index: Concepts and Content Over the Years*, Report 517, revised edition (Bureau of Labor Statistics, May 1978).

As of January 1976, the Producer Price Index incorporated a revised weighting structure reflecting 1972 values of shipments.

Additional data and analyses of price changes are provided in the *CPI Detailed Report* and *Producer Prices and Price Indexes*, both monthly publications of the Bureau.

For a discussion of the general method of computing producer, and industry price indexes, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 7. For consumer prices, see *BLS Handbook of Methods for Surveys and Studies* (1976), chapter 13. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965.

Beginning with the January 1983 data, tables 19 through 21 introduce a new treatment of homeownership costs into the Consumer Price Index for All Urban Consumers (CPI-U). The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) will not be affected by this change until 1985. For an explanation of the changes, see "Changing the treatment of shelter costs for homeowners in the CPI" by Robert Gillingham and Walter Lane in the June 1982 issue of the *Monthly Labor Review* and "Labor Month in Review" in the March 1983 issue. Additional information appears in the *CPI Detailed Report*, January 1983.

19. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-82

[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	115.8	5.8
1971	121.3	4.3	118.3	3.1	123.4	4.4	119.8	3.3	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	8.0	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
1980	247.0	13.5	248.7	8.7	263.2	15.7	177.4	6.6	250.5	17.7	287.2	11.3	203.7	8.5	213.6	8.8
1981	272.3	10.2	267.8	7.7	293.2	11.4	186.6	5.2	281.3	12.3	295.1	10.4	219.0	7.5	233.3	9.2
1982	288.6	6.0	278.5	4.0	314.7	7.3	190.9	2.3	293.1	4.2	326.9	10.8	232.4	6.1	257.0	10.2

20. 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						
	1982			1983				1982			1983			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All items	284.3	293.6	292.4	293.1	293.2	293.4	295.5	283.7	293.2	292.0	292.1	292.3	293.0	294.9
Food and beverages	276.5	279.1	279.1	280.7	281.6	283.2	284.6	276.8	279.4	279.6	281.1	282.1	283.5	284.9
Housing	309.4	319.0	316.3	317.9	318.5	318.6	320.3	309.2	319.6	316.8	317.0	317.6	319.2	320.3
Apparel and upkeep	191.9	195.4	193.6	191.0	192.0	194.5	195.5	191.2	194.4	192.8	190.0	191.0	194.0	194.8
Transportation	282.9	295.8	294.8	293.0	289.9	287.4	292.3	284.3	297.3	296.3	294.3	291.1	288.6	293.5
Medical care	321.7	342.2	344.3	347.8	351.3	352.3	353.5	320.2	339.8	341.8	345.3	348.9	350.0	351.2
Entertainment	233.9	239.9	240.1	241.5	243.1	244.6	244.6	230.5	236.1	236.5	237.7	239.5	240.8	241.1
Other goods and services	253.8	273.8	276.6	279.9	281.6	281.9	283.2	250.9	270.9	277.8	279.6	280.0	281.4	
Commodities	258.9	267.8	267.7	267.2	266.7	266.7	269.2	259.2	268.2	268.2	268.0	267.8	268.4	270.9
Commodities less food and beverages	247.0	258.2	258.0	256.5	255.2	254.3	257.3	247.2	258.9	258.8	257.8	257.1	257.4	260.3
Nondurables less food and beverages	259.7	271.4	270.0	267.4	265.2	263.4	267.8	261.3	273.3	271.9	269.3	266.9	265.0	269.7
Durables	235.8	246.6	247.3	247.3	247.1	247.4	248.7	234.8	246.2	247.0	247.3	247.8	249.7	251.2
Services	328.4	338.6	335.6	337.9	338.9	339.4	341.2	329.1	339.3	336.2	336.9	337.8	338.5	339.5
Rent, residential	220.1	230.2	230.8	232.2	233.1	233.6	234.5	219.6	229.7	230.2	231.7	232.5	233.1	234.0
Household services less rent of shelter (12/82 = 100)	...	...	100.0	100.9	101.0	101.6	102.0	...	...	...	...	...	...	...
Transportation services	290.3	299.9	299.4	300.1	299.9	299.8	300.8	289.2	297.5	296.7	297.1	296.9	296.7	297.2
Medical care services	348.0	371.0	373.4	377.4	381.5	382.2	382.8	345.8	367.7	370.1	374.0	378.2	379.0	379.7
Other services	255.3	269.2	270.0	271.5	272.6	272.9	274.2	253.8	266.8	267.5	269.1	270.2	270.6	272.0
Special indexes:														
All items less food	282.9	293.6	292.1	292.6	292.6	292.4	294.7	282.5	293.5	292.1	291.9	291.9	292.4	294.4
All items less mortgage interest costs	...	...	100.0	100.2	100.2	100.3	101.0	...	...	...	...	...	...	...
Commodities less food	245.0	256.0	255.8	254.4	253.2	252.4	255.4	245.3	256.7	256.6	255.7	255.0	255.4	258.2
Nondurables less food	255.0	266.1	264.7	262.4	260.5	258.9	263.0	256.6	267.9	266.6	264.2	262.2	260.6	265.0
Nondurables less food and apparel	291.4	306.2	305.2	303.1	299.9	296.5	302.1	292.3	307.5	306.5	304.4	301.1	297.4	303.5
Nondurables	269.3	276.4	275.8	275.2	274.6	274.4	277.3	270.1	277.4	276.8	276.2	275.6	275.3	278.4
Services less rent of shelter (12/82 = 100)	...	...	100.0	100.7	101.0	101.3	101.6	...	...	...	...	...	...	...
Services less medical care	324.0	332.9	329.3	331.4	332.2	332.7	334.5	324.9	334.0	330.4	330.7	331.2	332.0	333.0
Domestically produced farm foods	264.5	265.3	264.8	264.7	266.6	268.4	269.9	266.0	264.4	264.0	265.0	266.0	267.6	269.0
Selected beef cuts	275.1	271.9	270.0	271.2	272.0	272.6	279.4	276.4	273.2	271.2	272.5	273.5	274.0	280.7
Energy ¹	395.7	422.6	419.9	414.5	406.7	399.9	410.0	396.9	423.7	420.8	415.1	406.9	399.8	410.8
Energy commodities ¹	406.6	431.6	425.4	414.9	401.6	388.3	403.2	406.9	431.8	425.6	415.2	401.9	388.7	404.3
All items less energy	275.7	283.6	282.5	283.8	284.7	285.6	287.0	274.5	282.5	282.2	282.0	283.0	284.4	285.6
All items less food and energy	272.2	281.2	279.9	281.1	282.0	282.6	284.0	270.9	280.2	279.0	279.3	280.2	281.6	282.6
Commodities less food and energy	227.2	236.6	237.1	237.1	237.9	239.1	240.2	226.4	236.2	236.8	237.1	237.9	240.0	241.2
Services less energy	324.5	333.1	329.6	331.8	332.9	333.1	334.8	325.2	333.7	330.1	330.5	331.4	331.9	332.7
Purchasing power of the consumer dollar, 1967 = \$1	\$0.352	\$0.341	\$0.342	\$0.341	\$0.341	\$0.341	\$0.338	\$0.352	\$0.341	\$0.342	\$0.342	\$0.342	\$0.341	\$0.339

See footnotes at end of table.

20. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1982			1983			1982			1983				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOOD AND BEVERAGES	276.5	279.1	279.1	280.7	281.6	283.2	284.6	276.8	279.4	279.6	281.1	282.1	283.5	284.9
Food	283.9	286.4	286.5	288.1	289.0	290.5	291.9	284.1	286.6	286.7	288.4	289.3	290.7	292.1
Food at home	277.9	278.3	277.8	279.3	280.3	281.9	283.4	277.0	277.4	277.1	278.6	279.7	281.2	282.5
Cereals and bakery products	281.7	285.5	286.3	287.8	288.7	289.8	291.1	280.4	284.1	284.9	286.4	287.4	288.5	289.6
Cereals and cereal products (12/77 = 100)	153.6	153.2	153.4	154.0	154.0	155.0	156.1	154.6	154.1	154.2	154.8	154.7	155.8	156.9
Flour and prepared flour mixes (12/77 = 100)	139.7	139.2	139.5	140.3	139.8	139.4	140.2	140.1	139.5	139.8	140.6	140.1	139.9	140.4
Cereal (12/77 = 100)	165.4	167.2	168.0	168.1	169.2	171.3	173.8	167.4	169.4	170.1	170.3	171.4	173.5	175.9
Rice, pasta, and cornmeal (12/77 = 100)	149.6	146.1	145.3	156.5	145.3	146.0	145.8	150.8	147.3	146.5	147.6	146.3	147.0	146.8
Bakery products (12/77 = 100)	147.5	150.3	150.9	151.7	152.4	152.8	153.3	146.3	149.1	149.6	150.5	151.2	151.6	152.0
White bread	242.8	246.8	248.1	248.9	249.8	252.0	252.1	238.8	242.6	243.9	244.6	245.7	247.8	247.6
Other breads (12/77 = 100)	145.2	147.3	147.6	147.7	148.7	149.0	148.8	147.1	149.4	149.6	149.7	150.6	151.1	150.7
Fresh biscuits, rolls, and muffins (12/77 = 100)	147.6	150.9	151.6	152.6	153.1	152.0	152.5	143.8	146.9	147.6	148.6	149.1	148.0	148.4
Fresh cakes and cupcakes (12/77 = 100)	148.4	150.5	151.5	153.1	154.0	153.8	154.9	146.8	148.8	149.7	151.3	152.2	152.1	153.3
Cookies (12/77 = 100)	150.2	153.6	153.7	153.6	153.7	155.1	156.8	151.2	154.5	154.6	154.6	154.6	156.0	157.6
Crackers, bread, and cracker products (12/77 = 100)	137.3	143.3	144.1	144.9	146.5	146.0	147.2	138.7	144.6	145.5	146.4	147.9	147.3	148.7
Fresh sweetrolls, coffeecake, and donuts (12/77 = 100)	146.8	149.6	150.4	132.3	154.2	154.2	153.7	149.3	152.3	152.9	154.9	156.8	156.9	156.2
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	153.4	155.8	155.2	156.8	155.7	156.2	157.1	146.5	148.6	148.4	149.8	149.0	149.4	150.2
Meats, poultry, fish, and eggs	258.3	263.6	261.6	263.0	264.0	264.2	264.2	257.8	263.5	261.5	262.8	263.9	264.0	263.9
Meats, poultry, and fish	264.2	270.8	268.8	270.3	271.7	271.4	271.4	263.6	270.6	268.6	270.0	271.4	271.1	271.0
Meats	263.6	273.6	271.1	272.2	273.2	272.8	273.3	262.8	273.2	270.8	271.8	272.9	272.4	272.9
Beef and veal	274.8	272.0	270.2	271.3	272.2	272.8	279.4	275.3	272.5	270.6	271.8	272.9	273.5	280.0
Ground beef other than canned	266.9	263.0	261.7	262.7	261.8	263.6	267.0	267.9	264.2	262.7	263.7	263.0	264.7	268.0
Chuck roast	285.4	281.7	281.0	281.7	286.9	284.8	291.2	294.1	290.3	289.6	290.4	295.9	293.0	300.2
Round roast	244.9	241.4	243.0	243.3	242.6	239.9	251.1	247.9	244.3	246.4	246.6	245.3	242.8	254.0
Round steak	262.8	257.1	253.5	255.1	259.8	257.9	263.9	260.8	255.1	251.3	253.0	258.0	257.1	262.0
Sirloin steak	271.1	259.8	253.0	253.1	260.3	262.8	274.8	272.4	260.6	252.7	254.5	261.7	264.5	276.0
Other beef and veal (12/77 = 100)	163.7	164.1	162.8	163.7	163.5	164.4	168.3	162.1	162.4	161.2	162.1	162.1	163.0	166.8
Pork	241.6	274.2	270.1	272.0	273.6	271.1	262.1	241.0	262.1	269.5	271.4	272.9	270.4	261.7
Bacon	255.9	298.7	290.8	290.8	294.5	288.7	276.6	259.7	304.0	296.1	295.5	299.5	293.1	281.4
Chops	223.4	249.0	242.4	245.6	252.1	246.4	241.8	221.7	247.0	240.8	243.9	250.3	244.7	239.7
Ham other than canned (12/77 = 100)	105.4	127.3	129.6	129.2	125.0	125.6	116.7	102.8	124.2	126.4	126.0	121.7	122.4	113.9
Sausage	305.7	337.7	332.0	333.6	333.9	336.9	332.5	306.3	338.5	332.5	335.0	334.8	337.0	333.1
Canned ham	245.6	270.5	272.4	275.2	276.2	277.3	272.0	348.9	275.0	276.9	279.7	280.6	282.2	277.0
Other pork (12/77 = 100)	135.2	149.6	145.6	147.9	150.4	148.1	143.5	134.5	148.6	144.9	147.1	149.5	147.3	142.8
Other meats	262.8	271.6	269.7	269.3	269.2	269.7	268.6	261.8	271.5	269.8	268.7	269.0	269.3	266.4
Frankfurters	259.5	274.4	268.9	269.7	269.4	270.8	267.4	258.4	273.8	268.4	268.5	268.6	270.1	266.4
Bologna, liverwurst, and salami (12/77 = 100)	150.2	156.6	155.3	154.0	154.5	155.2	154.4	150.3	156.4	155.1	153.9	154.5	155.1	154.3
Other luncheats (12/77 = 100)	133.2	141.3	141.8	139.9	139.7	139.0	139.7	131.2	139.1	139.8	137.7	137.8	137.0	137.7
Lamb and organ meats (12/77 = 100)	142.6	135.4	134.3	137.4	137.2	138.2	137.0	145.6	138.5	137.3	140.3	140.1	140.9	140.0
Poultry	193.3	192.0	190.4	191.3	194.0	193.7	191.0	191.5	190.0	188.4	189.4	191.9	191.6	189.0
Fresh whole chicken	194.1	189.3	185.4	186.8	190.6	190.7	184.5	192.0	187.4	183.5	185.0	188.4	188.4	182.3
Fresh and frozen chicken parts (12/77 = 100)	127.6	125.3	124.8	125.0	126.2	126.6	125.7	125.9	123.5	123.1	123.5	124.6	125.1	124.2
Other poultry (12/77 = 100)	121.3	125.4	126.0	126.3	127.7	126.6	127.2	120.8	124.6	123.5	123.7	127.1	125.6	126.6
Fish and seafood	382.0	366.6	369.6	376.7	379.2	380.1	379.4	381.4	365.3	368.2	375.1	377.5	378.9	377.5
Canned fish and seafood	141.5	139.0	138.9	140.2	139.1	138.3	137.9	140.8	138.4	138.2	139.5	138.5	137.8	137.4
Fresh and frozen fish and seafood (12/77 = 100)	147.9	140.0	141.9	145.4	147.6	148.6	148.4	148.0	139.6	141.5	145.0	147.1	148.3	147.7
Eggs	186.9	175.0	172.5	172.9	169.3	175.0	174.9	187.9	176.2	173.3	173.7	170.0	175.8	175.8
Dairy products	247.5	247.4	247.8	249.5	249.7	249.6	250.1	246.8	246.7	247.1	248.9	249.1	248.9	249.1
Fresh milk and cream (12/77 = 100)	135.9	135.1	135.5	136.7	136.7	136.8	136.6	135.3	134.6	135.0	136.2	136.2	136.3	136.1
Fresh whole milk	222.2	220.9	221.9	223.7	223.4	223.4	223.5	221.3	220.1	221.1	222.9	222.6	222.6	222.7
Other fresh milk and cream (12/77 = 100)	136.2	135.4	135.2	136.9	137.3	137.7	136.7	135.7	134.9	134.7	136.3	136.8	137.1	136.1
Processed dairy products	145.6	146.6	16.6	147.1	147.4	147.2	148.1	145.9	146.9	146.9	147.4	147.7	147.4	148.4
Butter	250.1	252.5	252.1	253.4	253.6	253.5	253.9	252.7	255.1	254.5	255.9	256.2	256.1	256.5
Cheese (12/77 = 100)	143.7	144.5	144.6	145.2	145.5	145.5	146.5	144.0	144.8	144.9	145.5	156.8	145.8	146.8
Ice cream and related products (12/77 = 100)	150.9	152.4	151.8	152.5	153.1	150.7	152.0	150.2	151.5	150.8	151.6	152.2	149.8	151.1
Other dairy products (12/77 = 100)	139.9	140.9	141.7	141.6	141.6	143.9	144.5	140.8	141.5	142.4	142.3	144.2	144.6	145.3
Fruits and vegetables	294.0	276.1	277.6	276.2	278.1	286.9	294.9	290.3	271.3	273.6	272.6	274.5	282.9	291.1
Fresh fruits and vegetables	304.1	268.3	272.3	269.2	272.0	288.6	304.3	298.9	261.0	266.6	264.3	267.1	283.0	298.9
Fresh fruits	306.7	288.9	273.9	268.3	270.5	282.8	291.9	295.5	275.4	262.5	258.9	261.0	272.5	282.5
Apples	287.5	239.4	243.7	244.2	244.0	249.3	259.9	287.8	239.9	243.7	244.8	243.9	249.6	260.2
Bananas	268.5	243.7	242.6	241.3	254.0	257.1	295.1	266.1	241.9	242.0	239.9	250.9	254.6	293.0
Oranges	330.8	399.6	313.0	292.2	286.3	299.1	301.3	300.2	360.4	283.0	267.5	263.1	272.7	274.4
Other fresh fruits (12/77 = 100)	163.4	143.3	144.8	143.1	145.1	154.4	155.8	157.6	137.5	138.7	138.0	139.8	149.0	150.9
Fresh vegetables	301.8	249.1	270.8	270.0	273.4	294.0	316.0	302.0	248.1	270.4	269.2	272.7	292.5	314.0
Potatoes	306.1	240.8	241.3	236.2	240.6	241.1	258.7	300.8	235.9	237.5	231.5	236.5	236.1	253.3
Lettuce	355.2	259.2	334.6	301.3	249.0	247.9	316.0	358.6	259.8	336.0	303.4	250.0	246.6	311.6
Tomatoes	220.5	242.9	272.8	286.8	265.0	352.2	327.5	224.9	249.6	278.4	241.5	269.0	358.1	332.1
Other fresh vegetables (12/77 = 100)	166.3	137.6	142.2	156.0	165.6	175.8	186.							

20. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers						
	1982			1983				1982			1983			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOOD AND BEVERAGES—Continued														
Food—Continued														
Food at home—Continued														
Fruits and vegetables—Continued														
Cut corn and canned beans except lima (12/77 = 100)	140.5	140.8	140.3	139.5	138.5	138.9	139.6	137.9	138.4	137.8	137.0	136.2	136.4	137.1
Other canned and dried vegetables (12/77 = 100)	135.0	133.0	132.0	131.0	131.1	131.1	130.6	133.5	131.6	130.5	129.6	129.8	129.7	129.2
Other foods at home	331.6	334.3	333.7	337.1	338.2	339.1	339.2	332.6	335.1	334.6	337.9	339.1	339.9	340.0
Sugar and sweets	365.3	370.3	369.2	371.5	370.7	372.8	373.2	365.2	370.1	369.1	371.4	370.6	372.5	373.0
Candy and chewing gum (12/77 = 100)	150.9	149.6	149.5	149.8	149.6	150.3	150.8	150.8	149.5	149.6	149.8	149.6	150.3	150.8
Sugar and artificial sweeteners (12/77 = 100)	159.9	165.2	164.3	167.0	165.9	166.9	168.3	161.1	166.6	165.6	168.5	167.1	168.3	169.7
Other sweets (12/77 = 100)	147.2	152.5	151.7	152.0	152.3	153.4	151.4	145.3	150.2	149.4	149.8	150.2	151.0	149.1
Fats and oils (12/77 = 100)	260.4	258.6	258.6	259.3	258.0	258.4	258.6	260.4	258.5	258.7	259.3	258.1	258.4	258.4
Margarine	259.6	257.5	256.5	259.4	255.9	255.8	259.6	259.1	256.8	255.4	258.5	255.3	254.5	258.1
Nondairy substitutes and peanut butter (12/77 = 100)	157.3	152.0	151.7	151.6	151.8	151.4	151.5	155.6	150.3	150.2	150.0	150.1	149.7	149.9
Other fats, oils, and salad dressings (12/77 = 100)	129.9	129.8	130.3	130.2	129.8	130.4	129.5	129.5	130.3	130.8	130.7	130.3	131.0	130.1
Nonalcoholic beverages	424.1	426.2	424.3	431.1	432.2	432.7	431.8	426.0	427.9	426.1	432.8	433.9	434.5	433.5
Cola drinks, excluding diet cola	304.9	308.8	307.2	312.9	312.5	314.1	313.1	302.4	306.2	304.8	310.3	310.0	311.5	310.4
Carbonated drinks, including diet cola (12/77 = 100)	143.4	144.8	142.4	145.2	147.4	146.7	146.8	141.5	142.4	140.2	142.8	144.9	144.5	144.5
Roasted coffee	369.6	360.0	361.4	365.0	365.9	363.2	361.4	365.0	354.8	356.2	359.9	360.5	357.9	356.2
Freeze dried and instant coffee	343.4	344.2	346.1	348.2	349.3	349.2	349.5	343.0	343.7	345.6	347.8	349.0	348.8	349.0
Other noncarbonated drinks (12/77 = 100)	138.7	138.8	139.0	141.0	140.6	141.1	140.6	138.9	139.1	139.2	141.3	140.8	141.3	140.9
Other prepared foods	266.6	270.2	270.7	272.6	275.1	276.0	276.9	268.3	271.9	272.4	274.2	276.8	277.5	278.5
Canned and packaged soup (12/77 = 100)	135.7	136.6	136.9	138.1	139.0	140.0	140.9	137.8	138.5	138.9	140.1	141.1	141.9	142.7
Frozen prepared foods (12/77 = 100)	147.2	149.7	149.0	150.6	152.0	153.1	155.0	146.7	149.2	148.5	150.0	151.3	152.2	154.2
Snacks (12/77 = 100)	152.9	153.1	152.7	154.0	157.6	157.9	159.2	155.0	155.2	154.8	156.0	159.6	160.1	161.2
Seasonings, olives, pickles, and relish (12/77 = 100)	153.6	157.1	157.4	159.5	161.1	161.6	159.3	152.7	156.2	156.4	158.5	160.1	160.4	158.3
Other condiments (12/77 = 100)	148.7	151.7	152.6	153.8	154.9	154.9	155.3	150.4	153.4	154.4	156.6	156.8	156.7	157.1
Miscellaneous prepared foods (12/77 = 100)	147.6	150.2	151.0	151.1	151.5	151.7	151.6	147.7	150.3	151.2	151.4	151.7	151.9	151.8
Other canned and packaged prepared foods (12/77 = 100)	143.3	145.0	146.1	146.1	146.4	146.8	147.4	144.6	146.4	147.3	147.3	147.7	148.0	148.7
Food away from home	303.6	311.4	312.6	314.5	315.2	316.5	318.0	306.7	314.6	315.8	317.7	318.4	319.7	321.3
Lunch (12/77 = 100)	147.5	151.6	152.2	153.1	153.3	153.7	154.4	149.1	153.2	153.8	154.8	155.0	155.3	156.1
Dinner (12/77 = 100)	146.3	149.7	150.4	151.3	151.7	152.0	152.5	147.9	151.4	152.1	153.0	153.4	153.7	154.2
Other meals and snacks (12/77 = 100)	148.6	152.7	153.0	154.0	154.5	156.0	157.1	149.3	153.3	153.7	154.6	155.1	156.5	157.6
Alcoholic beverages	207.4	210.9	210.9	211.6	213.3	215.1	216.1	209.5	213.0	213.0	213.7	215.6	217.3	218.5
Alcoholic beverages at home (12/77 = 100)	134.6	136.2	136.1	136.5	137.7	139.1	139.7	136.0	137.5	137.4	137.8	139.2	140.6	141.3
Beer and ale	210.5	212.5	212.6	213.3	217.4	219.8	222.5	209.6	211.7	211.7	212.5	214.6	218.6	221.2
Whiskey	147.2	150.7	150.2	150.5	150.9	151.3	151.4	148.0	151.2	150.7	151.2	151.6	151.9	151.9
Wine	236.4	235.9	235.6	235.6	234.7	239.1	236.3	244.4	243.7	243.3	243.0	241.8	246.8	243.9
Other alcoholic beverages (12/77 = 100)	118.2	120.4	120.2	120.6	120.7	121.5	121.5	118.0	120.4	120.1	120.6	120.5	121.2	121.3
Alcoholic beverages away from home (12/77 = 100)	138.4	143.6	144.2	144.8	145.4	145.7	146.5	139.9	144.8	145.3	146.0	146.6	146.9	147.7
HOUSING	309.4	319.0	316.3	317.9	318.5	318.6	320.3	309.2	319.6	316.0	317.0	317.6	319.2	320.3
Shelter (CPI-U)	331.4	340.7	335.9	338.3	339.2	339.3	341.7	332.8						
Renters' costs			100.0	100.8	101.2	101.4	101.8							
Rent, residential	220.1	230.2	230.8	232.2	233.1	233.6	234.5	219.6						
Other renters' costs	323.7	337.8	333.0	339.2	340.8	340.6	343.7	322.8						
Homeowners' costs ²			100.0	100.7	100.9	100.9	101.7							
Owners' equivalent rent			100.0	100.7	100.9	100.8	101.7							
Household insurance			100.0	100.9	100.9	101.5	102.0							
Maintenance and repairs	331.6	339.0	337.8	342.9	339.4	339.9	343.6							
Maintenance and repair services	363.6	373.4	371.4	380.6	373.6	376.7	382.8							
Maintenance and repair commodities	256.2	257.8	258.5	259.4	259.3	257.7	258.7							
Shelter (CPI-W)								343.0	338.0	337.9	338.8	341.1	342.4	
Rent, residential								229.7	230.3	231.7	232.5	233.1	234.0	
Other renters' costs								335.6	330.7	337.3	339.0	339.0	342.3	
Lodging while out of town								349.3	341.4	350.8	353.6	353.1	358.2	
Tenants' insurance (12/77 = 100)								149.1	149.3	151.5	151.5	152.6	153.2	
Homeownership								383.7	376.8	375.9	376.9	379.9	381.2	
Home purchase								290.4	290.9	291.9	293.7	298.9	301.0	
Financing, taxes, and insurance								514.6	495.7	490.2	491.3	491.8	492.2	
Property insurance								409.7	412.1	414.5	417.9	419.2	422.3	
Property taxes								227.5	228.8	230.6	231.4	231.7	232.9	
Contracted mortgage interest costs								663.4	633.5	624.0	625.1	625.7	625.5	
Mortgage interest rates								226.6	215.9	212.0	211.1	207.5	206.0	
Maintenance and repairs								334.9	333.7	337.8	336.2	337.5	339.0	
Maintenance and repair services								374.0	371.7	377.3	374.5	376.6	378.9	
Maintenance and repair commodities								251.6	252.3	253.6	254.5	254.2	253.9	
Paint and wallpaper, supplies, tools, and equipment (12/77 = 100)								145.9	146.5	148.2	148.0	146.0	145.7	
Lumber, awnings, glass, and masonry (12/77 = 100)								120.8	121.3	120.5	122.2	124.1	123.4	
Plumbing, electrical, heating, and cooling supplies (12/77 = 100)								135.3	136.2	137.3	136.6	137.5	137.4	
Miscellaneous supplies and equipment (12/77 = 100)								141.6	141.2	141.3	142.2	142.4	143.1	

20. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1982			1983			1982			1983				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Fuel and other utilities	339.2	362.2	364.1	365.4	364.6	363.8	363.6	340.3	363.6	365.5	366.8	365.9	365.2	365.1
Fuels	428.2	461.9	464.0	463.5	461.5	459.7	459.2	427.8	461.7	463.9	463.3	461.2	459.5	459.3
Fuel oil, coal, and bottled gas	641.3	691.3	688.5	671.1	654.0	625.3	610.6	644.0	693.7	690.8	673.4	656.0	627.3	612.8
Fuel oil	666.2	712.8	708.7	689.3	669.7	636.4	618.4	668.4	714.7	710.6	691.2	671.3	637.9	620.4
Other fuels (6/78 = 100)	166.4	189.0	190.4	188.4	187.1	185.9	186.7	167.9	190.3	191.6	189.5	188.1	187.0	187.7
Gas (piped) and electricity	377.8	407.6	410.6	413.5	414.5	418.0	420.5	376.8	406.9	410.0	412.8	413.8	417.5	420.1
Electricity	312.8	318.4	319.6	319.2	320.1	321.2	319.9	311.8	317.3	318.7	318.3	319.4	320.7	319.3
Utility (piped) gas	465.3	543.1	549.6	559.1	560.1	568.3	578.3	463.6	541.6	547.6	556.9	557.6	565.9	576.5
HOUSING														
Fuel and other utilities														
Other utilities and public services	197.7	205.1	206.6	210.1	210.9	211.4	211.7	198.2	205.9	207.3	210.9	211.6	212.2	212.5
Telephone services	160.8	166.6	168.2	171.4	171.7	172.1	171.9	161.0	167.0	168.6	171.7	172.1	172.5	172.4
Local charges (12/77 = 100)	127.9	135.4	137.8	140.6	139.9	140.3	139.9	128.1	135.9	138.1	140.8	140.2	140.6	140.3
Interstate toll calls (12/77 = 100)	119.9	119.7	119.7	121.0	121.8	121.8	121.8	120.2	120.2	120.2	121.5	122.2	122.2	122.3
Intrastate toll calls (12/77 = 100)	108.9	111.1	111.5	114.0	115.9	116.3	116.6	108.7	110.9	111.3	113.9	115.8	116.2	116.6
Water and sewerage maintenance	320.7	335.1	335.8	341.6	343.9	345.6	347.5	323.6	338.2	338.9	344.8	347.2	349.0	350.8
Household furnishings and operations	232.6	235.1	235.7	235.8	236.7	237.6	239.9	229.1	231.8	232.3	232.6	233.4	234.6	236.0
Housefurnishings	193.8	195.1	195.3	194.9	195.9	197.1	198.7	191.7	193.0	193.2	193.0	193.8	195.3	196.7
Textile housefurnishings	218.7	222.6	222.0	221.9	228.2	230.3	229.4	221.4	225.8	224.9	224.5	232.2	234.8	233.6
Household linens (12/77 = 100)	135.8	133.8	132.7	131.5	139.0	136.7	134.2	137.0	135.0	134.0	132.6	140.7	137.9	135.3
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	136.9	144.0	144.4	145.6	145.7	150.9	152.4	139.1	147.5	147.6	148.6	149.5	156.2	157.8
Furniture and bedding	124.3	124.1	125.4	121.9	123.8	125.8	121.0	121.0	121.0	121.6	120.4	120.2	121.2	121.1
Bedroom furniture (12/77 = 100)	142.3	146.2	147.4	146.1	146.6	148.9	152.9	138.9	142.1	143.4	142.6	142.7	146.0	149.4
Sofas (12/77 = 100)	119.3	116.4	118.2	117.3	116.5	118.3	118.9	119.6	117.0	118.8	117.9	117.1	118.9	119.1
Living room chairs and tables (12/77 = 100)	123.2	122.1	122.2	121.6	121.0	122.0	126.2	123.3	122.5	122.5	122.0	121.5	122.6	126.6
Other furniture (12/77 = 100)	142.3	140.1	140.4	139.4	139.8	139.7	144.6	137.9	135.3	135.6	134.6	135.1	136.0	140.2
Appliances including TV and sound equipment	150.6	151.7	151.5	151.9	151.5	151.9	152.3	150.3	151.5	151.4	151.8	151.3	151.7	152.4
Television and sound equipment	108.7	108.1	107.2	107.0	107.1	106.9	107.1	107.7	107.3	106.3	106.1	106.1	105.9	106.2
Television	104.2	102.9	102.6	102.3	101.9	101.2	100.9	103.0	101.7	101.4	101.1	100.5	99.9	99.7
Sound equipment (12/77 = 100)	113.7	113.9	112.4	112.2	112.8	113.1	113.6	112.8	113.1	111.4	111.3	111.8	111.9	112.6
Household appliances	182.1	185.2	186.1	187.6	186.3	187.7	188.5	182.3	185.6	186.7	187.9	186.7	188.0	188.9
Refrigerators and home freezers	184.8	192.7	193.3	193.2	192.2	193.3	193.3	190.6	198.4	199.1	199.2	198.1	198.9	199.2
Laundry equipment	136.4	140.0	141.0	141.5	141.8	142.5	142.7	136.6	140.3	141.4	142.1	142.3	142.9	143.6
Other household appliances (12/77 = 100)	122.9	122.7	123.2	124.7	123.6	124.6	125.4	120.7	120.7	121.5	122.8	121.5	122.7	123.5
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	122.3	120.7	121.5	123.7	122.3	124.2	125.0	119.7	119.2	120.1	121.9	120.2	122.4	123.3
Office machines, small electric appliances, and air conditioners (12/77 = 100)	123.5	124.7	125.1	125.8	125.1	125.2	126.1	121.8	122.4	123.0	123.8	122.9	122.9	123.8
Other household equipment (12/77 = 100)	137.8	139.1	139.2	139.1	140.2	140.7	140.4	135.6	137.1	137.1	137.0	137.9	138.6	138.4
Floor and window coverings, infants', laundry, cleaning, and outdoor equipment (12/77 = 100)	140.3	142.6	142.7	141.2	143.3	143.0	143.2	132.9	134.5	134.3	133.2	134.9	135.0	135.3
Clocks, lamps, and decor items (12/77 = 100)	130.2	131.3	131.0	130.8	132.4	133.9	133.3	126.5	126.8	126.6	126.1	127.3	129.2	128.3
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	145.0	144.6	145.1	145.9	145.7	146.4	145.5	140.6	141.0	141.2	141.9	141.8	142.6	142.0
Lawn equipment, power tools, and other hardware (12/77 = 100)	130.8	134.2	134.1	134.1	135.4	135.5	135.9	136.0	139.5	139.2	139.3	140.6	140.9	141.4
Housekeeping supplies	284.9	290.3	292.3	294.0	294.8	295.4	296.9	281.2	287.1	288.8	290.7	291.6	292.2	293.9
Soaps and detergents	280.0	283.5	285.3	288.9	290.1	292.3	294.5	276.3	279.9	281.5	285.0	286.1	288.1	290.4
Other laundry and cleaning products (12/77 = 100)	142.7	147.3	148.0	149.0	149.1	149.5	150.6	141.6	146.2	146.9	147.7	147.9	148.3	149.5
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	146.4	148.2	148.6	150.2	150.4	149.3	148.8	146.2	148.1	148.5	150.3	150.5	149.1	148.9
Stationery, stationery supplies, and gift wrap (12/77 = 100)	131.4	138.3	137.9	138.1	138.6	139.3	139.6	134.6	141.4	141.0	141.1	141.7	142.3	142.7
Miscellaneous household products (12/77 = 100)	147.5	151.6	152.3	153.5	154.3	154.4	154.5	142.4	146.2	146.9	148.3	149.1	149.2	149.2
Lawn and garden supplies (12/77 = 100)	144.7	141.9	145.7	144.3	144.4	145.0	147.2	136.8	134.9	138.5	137.0	137.4	138.5	141.4
Housekeeping services	310.4	314.3	315.0	315.4	315.9	316.4	317.1	309.2	313.7	314.5	315.0	315.6	316.1	316.5
Postage	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	152.1	157.7	158.6	159.3	159.8	160.6	160.8	152.2	157.8	158.7	159.5	160.0	160.7	160.8
Appliance and furniture repair (12/77 = 100)	135.6	139.5	140.2	140.4	141.2	141.5	141.7	143.1	137.9	138.5	138.7	139.5	139.8	140.0
APPAREL AND UPKEEP	191.9	195.4	193.6	191.0	192.0	194.5	195.5	191.2	194.4	192.8	190.0	191.0	194.0	194.8
Apparel commodities	181.4	184.3	182.3	179.2	180.2	182.8	183.7	181.3	183.8	181.9	178.7	179.7	182.9	183.5
Apparel commodities less footwear	177.4	180.6	178.4	175.0	176.0	178.9	179.4	177.1	179.8	177.8	174.3	175.3	178.9	179.4
Men's and boys'	183.1	189.0	187.4	184.9	184.4	186.7	187.8	182.9	188.9	187.6	185.2	184.8	187.0	187.9
Men's (12/77 = 100)	115.5	119.3	118.3	116.8	116.2	117.1	117.9	115.7	119.7	118.8	117.4	116.9	117.6	118.3
Suits, sport coats, and jackets (12/77 = 100)	107.6	111.5	108.7	106.5	106.7	109.1	100.3	101.1	104.2	101.7	99.9	100.2	102.1	103.5
Coats and jackets	99.1	103.4	103.2	98.8	98.1	100.0	100.0	100.7	105.4	105.5	100.5	99.9	102.2	102.4
Furnishings and special clothing (12/77 = 100)	138.2	142.4	141.5	142.2	142.6	141.4	142.8	134.5	139.1	137.9	138.7	139.1	137.6	138.6
Shirts (12/77 = 100)	121.3	125.8	126.5	124.5	122.0	121.7	122.0	123.4	128.7	129.2	127.5	125.0	124.4	125.0
Dungarees, jeans, and trousers (12/77 = 100)	109.7	112.6	111.9	111.0	110.5	111.5	112.0	115.1	118.1	117.5	116.5	116.1	117.4	117.7
Boys' (12/77 = 100)	118.3	121.6	120.7	118.9	119.3	123.2	123.5	116.5	119.7	119.0	117.2	117.7	121.4	121.5
Coats, jackets, sweaters, and shirts (12/77 = 100)	111.2	113.7	112.2	108.9	108.1	115.5	115.2	111.5	114.6	113.3	110.4	109.3	116.4	115.7
Furnishings (12/77 = 100)	130.3	132.6	132.4	132.0	132.5	134.0	134.9	126.0	128.5	128.3	128.0	128.4	129.6	130.4
Suits, trousers, sport coats, and jackets (12/77 = 100)	119.0	123.4	122.8	121.5	122.9	124.9	125.5	116.8	120.5	120.0	118.6	120.2	122.3	122.6
Women's and girls'	160.9	162.2	159.6	153.9	155.7	160.0	160.6	163.4	163.8	161.3	155.4	157.2	162.8	163.1
Women's (12/77 = 100)	107.1	107.3	105.5	101.8	103.2	106.2	106.5	109.1						

20. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1982			1983			1982			1983				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
APPAREL AND UPKEEP—Continued														
Apparel Commodities—Continued														
Apparel commodities less footwear—Continued														
Separates and sportswear (12/77 = 100)	100.1	100.1	97.1	93.7	94.6	98.5	100.1	101.0	100.9	97.8	94.4	95.3	99.2	101.0
Underwear, nightwear, and hosiery (12/77 = 100)	127.4	130.6	130.8	128.8	130.0	131.0	131.1	127.3	130.2	103.5	128.4	129.7	130.7	130.8
Suits (12/77 = 100)	89.4	87.4	82.8	76.9	79.7	83.7	80.5	111.0	105.8	99.7	91.8	95.6	104.7	99.4
Girls' (12/77 = 100)	106.7	110.4	109.5	105.1	105.1	107.6	108.2	106.9	106.6	109.2	105.0	104.9	108.0	109.2
Coats, jackets, dresses, and suits (12/77 = 100)	98.8	103.9	103.7	95.8	96.5	98.4	97.1	97.6	102.2	102.0	95.2	95.8	97.6	98.5
Separates and sportswear (12/77 = 100)	105.4	106.0	104.1	102.1	101.5	105.6	107.5	107.6	105.1	105.1	102.9	102.0	107.5	109.1
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	122.0	129.3	129.1	125.7	125.8	126.4	127.8	121.0	128.1	128.0	124.9	124.9	125.6	126.9
Infants' and toddlers'	267.0	274.2	273.1	277.1	278.8	280.1	280.4	278.2	285.5	284.2	287.5	289.5	291.1	291.0
Other apparel commodities	210.8	212.7	210.1	211.5	213.4	213.4	214.4	199.5	201.4	199.2	200.1	201.7	201.9	202.5
Sewing materials and notions (12/77 = 100)	118.5	120.0	12.8	120.4	120.5	120.4	121.8	166.9	118.2	118.5	118.5	118.5	118.4	119.4
Jewelry and luggage (12/77 = 100)	143.8	144.9	142.2	143.7	145.4	145.4	145.8	134.5	135.7	133.5	134.4	135.9	136.1	136.2
Footwear	205.6	206.9	205.9	204.8	205.6	206.6	207.5	206.1	206.7	205.8	204.6	205.2	206.1	207.2
Men's (12/77 = 100)	132.3	132.5	132.0	131.4	132.2	133.2	133.9	134.4	134.2	133.7	133.0	133.9	134.8	135.6
Boys' and girls' (12/77 = 100)	130.4	129.3	129.0	130.4	131.2	131.1	130.7	133.6	131.8	131.5	132.9	133.4	133.2	133.4
Women's (12/77 = 100)	125.1	127.6	126.8	124.5	124.6	125.5	126.5	121.1	123.6	122.9	120.4	120.4	121.1	122.0
Apparel services	273.4	282.0	282.8	283.9	285.4	286.7	288.7	271.0	280.3	281.1	282.2	283.6	284.9	287.1
Laundry and drycleaning other than coin operated (12/77 = 100)	163.5	167.9	168.9	169.6	170.3	170.8	171.7	162.0	166.4	167.5	168.1	168.8	169.3	170.3
Other apparel services (12/77 = 100)	142.5	148.1	147.7	148.3	149.1	150.4	152.0	142.7	149.2	148.8	149.4	150.3	151.4	153.1
TRANSPORTATION	282.9	295.8	294.8	293.0	289.9	287.4	292.3	284.3	297.3	296.3	294.3	291.1	288.6	293.5
Private	278.8	291.4	290.4	288.4	285.2	282.7	287.5	281.2	294.1	293.1	290.9	287.6	285.0	289.9
New cars	196.0	199.0	200.1	201.0	201.3	201.2	201.1	195.9	198.7	199.9	200.8	201.0	200.9	200.7
Used cars	285.1	310.5	312.6	311.0	309.1	309.3	312.7	285.2	310.5	312.6	311.1	309.1	309.3	312.7
Gasoline *	366.7	388.1	381.3	371.9	359.4	348.6	367.6	367.9	389.5	383.0	373.6	361.2	350.3	369.3
Automobile maintenance and repair	311.9	322.3	323.1	324.4	325.9	326.6	327.4	312.8	323.1	323.8	325.2	326.6	327.4	328.1
Body work (12/77 = 100)	155.0	161.0	161.4	162.2	162.7	163.6	164.7	153.3	159.6	160.2	161.1	161.5	162.5	163.4
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	149.5	153.7	154.3	155.4	156.1	156.3	157.3	153.7	157.8	158.3	159.4	160.1	160.3	161.2
Maintenance and servicing (12/77 = 100)	144.5	149.3	149.9	150.5	151.1	150.9	151.0	144.0	148.6	149.2	149.9	150.5	150.3	150.4
Power plant repair (12/77 = 100)	149.1	154.4	154.2	154.4	155.4	156.2	156.2	148.6	153.9	153.7	153.9	154.8	155.6	155.7
Other private transportation	255.1	260.7	259.6	259.9	259.7	259.2	258.4	258.2	262.9	261.6	261.5	261.1	260.5	259.3
Other private transportation commodities	214.9	215.1	214.3	215.6	215.0	213.3	212.2	217.3	217.7	216.9	218.0	217.4	215.8	214.7
Motor oil, coolant, and other products (12/77 = 100)	150.7	153.3	153.3	153.9	154.8	154.8	156.1	149.2	152.3	152.3	153.0	153.8	153.8	155.0
Automobile parts and equipment (12/77 = 100)	137.2	137.0	136.5	137.3	136.7	135.5	134.5	139.2	139.0	138.4	139.1	138.5	137.4	136.4
Tires	190.1	190.4	190.0	191.3	190.6	188.1	186.4	193.7	194.0	193.7	194.9	194.1	191.7	190.1
Other parts and equipment (12/77 = 100)	136.2	135.1	133.8	134.3	133.7	133.9	133.4	136.6	135.4	133.9	134.3	133.6	133.8	133.4
Other private transportation services	268.2	275.3	274.2	274.2	274.1	273.9	273.1	276.6	277.5	276.0	275.2	274.8	273.7	273.7
Automobile insurance	270.4	286.9	288.8	292.0	295.6	297.0	299.0	270.2	286.1	288.2	291.3	294.9	296.3	298.2
Automobile finance charges (12/77 = 100)	187.2	178.9	173.8	169.6	165.0	161.9	157.3	186.7	178.1	173.0	168.7	164.0	161.0	156.6
Automobile rental, registration, and other fees (12/77 = 100)	133.3	139.2	139.3	139.8	140.1	141.1	141.4	133.7	140.0	140.1	140.5	140.8	141.9	142.2
State registration	174.2	183.8	183.8	184.6	184.9	186.6	186.6	173.8	183.4	183.4	184.0	184.3	186.3	186.3
Drivers' licenses (12/77 = 100)	123.0	132.8	132.8	132.8	133.5	133.9	133.9	123.0	133.1	133.1	133.1	133.7	134.1	134.1
Vehicle inspection (12/77 = 100)	129.0	128.5	128.5	128.6	128.6	129.2	131.1	130.4	129.8	129.8	129.9	129.9	130.5	132.4
Other vehicle-related fees (12/77 = 100)	149.5	155.0	155.2	155.8	156.2	157.0	157.6	156.4	162.9	163.2	163.9	164.1	165.1	165.4
Public	339.3	356.0	355.6	357.7	355.2	354.5	361.1	333.3	348.2	348.0	349.8	347.7	347.3	353.3
Airline fare	382.7	411.6	408.8	412.3	405.5	402.9	417.2	379.8	408.8	405.9	409.8	401.5	398.9	415.9
Intercity bus fare	367.0	373.8	377.7	381.8	383.8	389.4	394.6	368.7	375.7	379.3	383.3	385.4	392.0	396.9
Intracity mass transit	308.1	316.1	317.7	318.5	319.4	320.1	320.2	307.2	315.7	316.7	317.4	318.3	319.0	319.1
Taxi fare	297.6	300.5	300.8	300.9	301.2	300.8	302.0	307.3	310.1	310.5	310.5	310.8	310.4	311.4
Intercity train fare	332.1	348.3	351.3	351.8	351.8	351.9	352.0	332.1	349.3	351.9	352.3	352.2	352.3	352.5
MEDICAL CARE	327.1	342.2	344.3	347.8	351.3	352.3	353.5	320.2	339.8	341.8	345.3	348.9	350.0	351.2
Medical care commodities	202.4	212.9	213.7	215.3	216.7	218.6	221.2	230.0	213.4	214.0	215.9	217.2	219.0	221.6
Prescription drugs	188.8	201.0	202.8	204.1	205.9	208.7	211.6	189.7	202.1	203.9	205.3	207.1	209.9	212.8
Anti-infective drugs (12/77 = 100)	140.9	150.1	150.9	151.4	153.3	153.8	155.2	142.5	152.3	153.1	153.5	155.5	155.8	157.2
Tranquilizers and sedatives (12/77 = 100)	152.0	163.5	165.8	166.6	168.2	171.4	174.7	151.8	163.2	165.5	166.4	167.9	171.2	174.5
Circulatories and diuretics (12/77 = 100)	136.7	144.0	144.9	145.9	147.2	151.2	153.4	136.6	143.9	144.8	145.8	147.2	151.0	153.2
Hormones, diabetic drugs, biologicals, and prescription medical supplies (12/77 = 100)	173.3	183.9	185.5	186.6	189.0	192.4	196.1	174.6	185.2	187.0	188.0	190.8	194.2	198.1
Pain and symptom control drugs (12/77 = 100)	153.1	164.0	166.2	167.7	168.6	170.0	171.7	154.6	166.0	168.0	169.5	170.3	171.7	173.4
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	144.7	153.4	154.2	155.8	156.4	157.8	159.4	144.8	153.6	154.5	156.2	156.7	158.1	159.7
Nonprescription drugs and medical supplies (12/77 = 100)	143.9	149.9	149.7	151.0	151.6	152.3	153.8	144.6	150.5	150.3	151.8	152.4	153.1	154.6
Eyeglasses (12/77 = 100)	130.1	132.9	133.0	133.9	134.6	134.9	135.1	128.7	131.6	131.8	132.6	133.4	133.7	133.9
Internal and respiratory over-the-counter drugs	231.1	241.9	241.3	244.3	245.1	245.5	248.7	232.5	243.0	242.2	245.7	246.4	246.8	250.2
Nonprescription medical equipment and supplies (12/77 = 100)	138.9	145.2	145.2	145.3	146.1	148.0	149.4	139.7	146.2	146.3	146.3	147.4	149.4	150.6
Medical care services	348.0	371.0	373.4	377.4	381.5	382.2	382.8	345.8	367.7	370.1	374.0	378.2	379.0	379.7
Professional services	297.8	308.3	309.4	312.5	315.4	316.7	318.0	297.9	308.4	309.5	312.7	315.7	316.9	318.4
Physicians' services	322.2	335.3	336.6	341.3	344.8	346.4	348.2	325.2	338.6	339.9	344.6	348.2	349.8	351.8

20. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1982			1983			1982			1983				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
MEDICAL CARE—Continued														
Medical care service—Continued														
Professional services—Continued														
Dental services	281.1	289.2	290.1	291.6	294.0	294.6	295.7	279.2	287.0	288.0	289.3	291.8	292.3	293.4
Other professional services (12/77 = 100)	142.5	147.2	147.6	149.1	150.5	151.6	151.9	139.4	143.9	144.4	145.7	147.2	148.3	148.5
Other medical care services	408.7	446.8	450.8	455.9	461.3	461.4	461.1	405.4	442.3	446.3	451.3	457.0	457.1	456.9
Hospital and other medical services (12/77 = 100)	169.8	182.6	183.2	185.1	188.6	189.5	190.2	168.3	180.7	181.5	183.4	187.0	187.8	188.4
Hospital room	542.2	586.6	588.5	594.6	604.1	606.2	608.0	535.2	578.7	581.5	587.1	596.7	598.8	600.7
Other hospital and medical care services (12/77 = 100)	166.4	176.0	178.7	180.6	184.5	185.6	186.3	165.5	176.7	177.5	179.4	183.3	184.3	184.9
ENTERTAINMENT	233.9	239.9	240.1	241.5	243.1	244.6	244.6	230.5	236.1	236.5	237.7	239.5	240.8	241.1
Entertainment commodities	238.0	241.4	241.8	242.6	244.5	246.8	246.0	232.0	235.4	236.0	236.7	238.8	240.8	240.5
Reading materials (12/77 = 100)	146.8	153.4	154.3	156.1	156.1	159.3	158.4	146.1	152.7	153.8	155.5	155.5	158.7	157.8
Newspapers	280.1	290.9	294.7	295.7	296.5	299.6	300.2	279.7	290.5	294.8	295.6	296.4	299.8	300.4
Magazines, periodicals, and books (12/77 = 100)	151.6	159.6	159.3	162.6	162.2	167.1	164.8	151.4	159.6	159.2	162.6	162.1	167.3	164.8
Sporting goods and equipment (12/77 = 100)	132.9	132.1	131.6	131.5	133.4	134.2	133.6	124.7	124.7	124.3	124.4	127.0	127.2	127.5
Sport vehicles (12/77 = 100)	136.1	133.8	133.3	132.9	136.1	137.3	136.3	122.8	122.2	122.0	122.0	126.0	126.4	126.7
Indoor and warm weather sport equipment (12/77 = 100)	120.4	119.9	120.0	120.3	120.5	120.8	121.3	118.6	117.6	117.7	117.0	117.9	118.4	118.9
Bicycles	198.9	198.3	197.1	197.3	196.7	197.8	196.1	200.2	199.5	198.5	198.4	197.7	198.0	197.4
Other sporting goods and equipment (12/77 = 100)	126.3	131.5	130.6	131.4	132.1	131.6	132.0	126.5	131.3	130.0	130.9	131.9	131.5	132.0
Toys, hobbies, and other entertainment (12/77 = 100)	135.4	136.4	136.8	136.8	138.0	138.6	138.5	134.3	135.2	135.6	135.6	136.7	137.3	137.2
Toys, hobbies, and music equipment (12/77 = 100)	134.1	135.5	135.5	135.5	136.9	137.6	137.3	130.7	131.8	132.0	131.9	133.0	133.7	133.4
Photographic supplies and equipment (12/77 = 100)	129.8	129.0	129.7	129.9	131.2	131.6	131.6	131.0	130.1	130.8	131.0	132.3	132.8	132.6
Pet supplies and expenses (12/77 = 100)	141.9	143.4	144.2	144.2	144.9	145.6	145.8	142.7	144.5	145.1	145.1	145.9	146.5	146.9
Entertainment services	228.5	238.2	238.2	240.5	241.6	241.9	243.1	229.2	238.4	238.5	240.8	241.8	242.1	243.3
Fees for participant sports (12/77 = 100)	142.0	149.0	148.9	150.0	150.6	150.9	151.3	143.7	150.1	150.0	151.2	151.7	152.2	152.4
Admissions (12/77 = 100)	132.2	136.9	137.3	139.9	140.9	140.1	141.7	131.2	135.9	136.4	138.8	139.8	139.1	140.7
Other entertainment services (12/77 = 100)	125.2	129.8	129.6	129.8	130.3	131.0	131.6	125.9	130.7	130.6	130.6	131.2	131.8	132.4
OTHER GOODS AND SERVICES	253.8	273.8	276.6	279.9	281.6	281.9	283.2	250.9	270.9	274.0	277.8	279.6	280.0	281.4
Tobacco products	235.1	264.0	272.3	280.3	282.8	283.3	284.9	234.0	263.4	271.9	279.9	282.2	282.7	284.3
Cigarettes	238.0	269.8	279.0	287.6	290.0	290.4	292.0	236.9	268.8	278.0	286.5	288.8	289.3	290.9
Other tobacco products and smoking accessories (12/77 = 100)	139.9	142.8	143.8	145.8	147.8	148.6	149.6	140.1	143.0	143.9	145.8	147.7	148.5	149.5
Personal care	245.9	254.2	254.8	256.1	257.8	257.8	259.1	244.1	252.1	252.5	253.9	255.5	255.8	257.1
Toilet goods and personal care appliances	243.8	253.5	252.2	253.9	256.0	257.1	258.5	244.7	254.1	253.1	254.8	256.8	257.8	259.3
Products for the hair, hairpieces, and wigs (12/77 = 100)	142.9	148.3	146.8	147.1	148.1	148.5	150.9	144.3	147.3	146.2	146.5	147.4	147.8	150.3
Dental and shaving products (12/77 = 100)	149.0	157.2	156.2	157.6	159.3	160.4	160.5	147.6	155.4	154.6	155.9	157.8	158.9	158.9
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	136.5	141.7	142.2	144.0	145.6	146.0	145.6	137.5	142.3	143.0	144.8	146.4	146.7	146.3
Other toilet goods and small personal care appliances (12/77 = 100)	140.3	144.7	143.2	143.6	144.1	144.9	146.0	143.5	148.4	147.0	147.3	147.7	148.5	149.8
Personal care services	248.7	255.8	258.0	259.0	260.4	259.5	260.7	244.0	250.6	252.4	253.4	254.7	254.3	255.4
Beauty parlor services for women	250.7	258.9	262.1	263.3	264.4	262.4	264.2	244.3	252.1	254.7	255.8	256.8	255.5	257.2
Haircuts and other barber shop services for men (12/77 = 100)	138.8	141.4	141.6	142.0	143.1	143.7	143.8	137.6	140.3	140.8	141.9	142.6	142.7	142.7
Personal and educational expenses	291.9	320.0	320.5	322.1	323.3	323.9	324.9	293.5	321.3	321.7	323.6	325.0	325.7	326.8
Schoolbooks and supplies	263.8	283.1	283.3	288.4	292.0	292.3	292.5	268.0	286.8	287.0	292.4	296.0	296.3	296.5
Personal and educational services	298.7	328.6	329.1	330.2	331.0	331.5	332.7	300.0	329.8	330.3	331.5	332.5	333.2	334.5
Tuition and other school fees	151.4	167.2	167.2	167.3	167.4	167.4	167.6	152.0	167.7	167.7	167.7	167.9	167.9	168.2
College tuition (12/77 = 100)	151.0	166.8	166.8	166.9	167.0	167.0	167.4	151.3	166.9	166.9	167.0	167.1	167.1	167.5
Elementary and high school tuition (12/77 = 100)	152.2	168.7	168.7	168.7	168.8	168.8	168.8	152.9	169.7	169.7	169.7	169.8	169.8	169.8
Personal expenses (12/77 = 100)	160.9	174.1	175.4	178.8	179.6	181.2	183.1	160.5	174.0	175.2	177.9	179.5	181.1	183.1
Special indexes:														
Gasoline, motor oil, coolant, and other products	362.6	383.5	377.0	367.9	355.8	345.2	363.4	363.7	384.8	378.5	369.4	357.3	346.7	365.0
Insurance and finance	426.2	413.4	413.4	413.4	413.4	413.4	413.4	425.9	427.2	414.7	411.1	411.6	411.8	411.6
Utilities and public transportation	305.1	324.1	326.0	329.1	329.4	331.1	333.4	304.0	323.2	325.1	328.1	328.5	330.4	332.6
Housekeeping and home maintenance services	347.5	354.8	354.0	355.3	355.1	356.0	357.3	348.2	355.4	354.4	357.9	356.5	357.9	359.5

¹Excludes motor oil, coolant, and other products as of January 1983.

c = corrected.

²See box with "Price Data."

21. 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)		
	1982		1983	1982		1983	1982		1983	1982		1983
	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.
Northeast												
EXPENDITURE CATEGORY												
All items	151.0	151.8	153.1	157.1	158.2	159.0	162.3	162.9	163.5	156.3	156.1	158.2
Food and beverages	144.4	146.0	147.0	142.1	144.2	146.2	147.4	149.8	151.1	142.0	144.0	145.8
Housing	155.9	156.7	158.0	166.5	168.8	169.1	175.2	176.2	176.4	163.2	163.1	165.1
Apparel and upkeep	119.8	120.3	122.6	124.9	121.9	122.4	129.1	126.6	128.5	131.1	124.3	130.2
Transportation	161.0	159.1	160.1	166.7	164.8	165.4	166.2	164.2	164.3	164.5	162.5	164.3
Medical care	153.6	158.1	159.6	16.6	161.6	163.0	163.6	165.5	166.0	159.8	164.1	165.8
Entertainment	140.2	141.6	143.1	135.9	139.1	139.1	139.2	140.0	139.8	145.0	147.2	146.5
Other goods and services	152.8	154.4	156.2	153.9	157.3	158.6	157.8	160.4	162.3	158.7	159.4	162.1
COMMODITY AND SERVICE GROUP												
Commodities	147.5	147.6	148.4	153.5	153.1	153.0	153.7	153.3	153.6	151.7	150.2	151.3
Commodities less food and beverages	149.4	148.4	149.0	159.0	157.1	155.7	156.6	154.5	154.3	156.3	152.7	153.4
Services	155.6	157.1	159.0	162.9	166.1	168.2	176.4	178.3	179.4	163.4	165.1	168.5
North Central Region												
EXPENDITURE CATEGORY												
All items	162.0	162.4	163.6	159.3	159.6	161.1	156.2	155.8	157.3	156.8	156.6	158.1
Food and beverages	143.3	144.7	145.4	141.9	143.4	144.1	143.4	143.8	145.6	149.1	149.1	150.9
Housing	179.1	180.2	181.9	169.1	170.2	171.7	162.8	163.2	164.1	161.9	162.2	163.8
Apparel and upkeep	116.4	115.4	117.9	129.4	124.4	128.8	126.1	124.1	128.4	121.4	122.0	123.5
Transportation	163.8	160.7	161.7	164.5	162.1	164.0	165.2	162.0	163.9	163.8	160.6	161.2
Medical care	160.3	164.2	165.3	164.0	167.7	168.3	162.9	164.7	165.8	166.5	171.0	172.2
Entertainment	140.2	141.3	141.9	134.1	135.9	136.7	143.7	144.3	145.9	134.5	135.2	136.5
Other goods and services	152.8	155.4	156.2	163.8	167.5	167.4	150.6	152.9	152.6	160.3	163.3	165.2
COMMODITY AND SERVICE GROUP												
Commodities	151.7	151.2	152.7	150.8	149.7	151.7	148.7	147.2	149.1	148.4	147.2	148.5
Commodities less food and beverages	155.7	153.9	155.9	154.5	152.0	154.6	150.9	148.4	150.3	148.1	146.2	147.3
Services	177.3	178.8	179.9	173.1	175.3	176.1	168.4	169.6	170.7	170.1	171.5	173.0
South												
EXPENDITURE CATEGORY												
All items	157.5	158.0	159.1	159.3	159.5	160.9	158.8	159.0	160.2	159.1	159.5	160.8
Food and beverages	147.0	148.7	150.5	146.4	147.3	149.2	145.4	146.1	147.4	147.3	147.7	149.9
Housing	164.3	164.9	163.5	166.0	166.1	166.9	166.0	167.3	167.8	168.2	169.9	169.9
Apparel and upkeep	128.0	127.6	128.7	124.7	124.0	126.2	122.6	120.1	123.1	111.1	108.3	112.5
Transportation	164.6	162.1	163.8	168.0	165.0	167.1	166.8	163.8	165.9	163.5	161.3	162.9
Medical care	164.0	167.1	168.7	163.5	167.2	167.9	173.5	176.8	177.5	179.4	182.5	183.0
Entertainment	135.0	137.5	138.6	148.5	151.0	169.0	144.4	145.9	146.5	143.8	145.4	145.6
Other goods and services	155.0	157.5	158.4	158.1	163.2	154.5	154.9	157.8	153.5	155.8	160.3	160.4
COMMODITY AND SERVICE GROUP												
Commodities	150.9	150.9	152.3	152.3	151.7	153.8	150.2	149.2	151.0	150.6	149.2	151.1
Commodities less food and beverages	152.6	151.5	152.7	154.8	153.2	155.5	152.3	150.2	152.4	151.9	149.6	151.4
Services	166.9	167.9	168.6	169.9	171.1	171.6	172.1	173.9	174.4	172.1	174.9	175.3
West												
EXPENDITURE CATEGORY												
All items	156.9	157.8	159.2	157.9	158.3	159.5	150.1	151.0	152.2	157.8	157.9	157.0
Food and beverages	147.8	149.3	151.8	149.2	150.6	152.8	144.8	146.0	148.6	150.7	150.6	153.1
Housing	160.7	163.2	164.0	161.2	162.2	163.5	143.8	150.1	151.8	158.3	159.3	154.4
Apparel and upkeep	119.9	120.1	121.0	125.8	125.1	121.7	123.4	122.4	122.7	136.9	139.7	139.8
Transportation	166.3	162.8	165.1	168.1	165.3	165.8	165.1	161.0	162.4	165.2	162.0	161.1
Medical care	171.1	174.4	175.3	168.4	170.5	171.5	170.7	174.2	174.8	171.5	173.3	175.0
Entertainment	137.8	139.2	139.7	142.5	144.7	145.6	137.2	143.3	139.6	154.3	155.2	157.0
Other goods and services	159.3	162.9	163.5	158.9	161.7	162.8	153.0	155.9	158.1	165.2	168.8	169.3
COMMODITY AND SERVICE GROUP												
Commodities	148.1	148.0	149.9	150.7	150.5	151.7	159.0	148.5	149.8	148.9	148.0	149.0
Commodities less food and beverages	148.3	147.0	148.6	151.3	150.1	150.7	150.7	148.6	149.6	148.1	146.8	147.0
Services	168.5	170.7	171.6	167.9	169.0	170.2	151.7	154.0	155.3	171.0	172.5	168.8

22. Consumer Price Index—U.S. city average, and selected areas

[1967 = 100 unless otherwise specified]

Area ¹	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1982			1983				1982			1983			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
U.S. city average ²	284.3	293.6	...	...	293.2	293.4	295.5	283.7	293.2	...	...	292.3	293.0	294.9
Anchorage, Alaska (10/67 = 100)	...	257.2	...	257.6	...	261.0	...	...	254.4	...	250.6	...	253.9	...
Atlanta, Ga.	280.2	...	296.1	...	295.1	...	297.6	282.9	...	297.8	...	297.0	...	300.1
Baltimore, Md.	...	290.1	...	291.4	...	292.4	...	...	289.7	...	289.7	...	295.0	...
Boston, Mass.	...	285.0	...	286.2	...	285.9	...	...	284.4	...	283.9	...	284.3	...
Buffalo, N.Y.	258.3	...	277.8	...	280.3	...	282.5	256.4	...	275.0	...	276.5	...	278.4
Chicago, Ill.-Northwestern Ind.	280.2	294.3	293.1	294.0	293.7	293.7	295.3	280.0	293.1	291.8	292.8	291.4	291.4	293.6
Cincinnati, Ohio-Ky.-Ind.	...	304.2	...	306.0	...	307.6	...	...	307.1	...	305.2	...	307.6	...
Cleveland, Ohio	286.5	...	317.6	...	319.9	...	320.6	285.7	...	315.0	...	313.7	...	315.4
Dallas-Ft. Worth, Tex.	297.2	...	303.3	...	304.5	...	308.6	292.7	...	299.4	...	298.1	...	301.7
Denver-Boulder, Colo.	...	326.2	...	327.5	...	329.6	...	...	332.5	...	323.9	...	326.8	...
Detroit, Mich.	283.7	296.0	292.6	292.6	292.3	292.4	294.9	280.3	292.1	288.7	288.0	287.1	289.8	295.0
Honolulu, Hawaii	263.3	...	269.9	...	270.4	...	272.8	264.2	...	271.0	...	274.8	...	276.9
Houston, Tex.	304.9	...	318.1	...	317.3	...	316.7	302.1	...	316.1	...	317.4	...	317.6
Kansas City, Mo.-Kansas	274.0	...	290.6	...	292.3	...	295.9	272.1	...	288.6	...	289.0	...	293.5
Los Angeles-Long Beach, Anaheim, Calif.	286.6	288.5	285.3	285.6	286.8	287.1	289.5	290.3	291.6	288.0	288.0	290.1	289.6	290.2
Miami, Fla. (11/77 = 100)	...	156.8	...	157.9	...	159.0	...	...	158.6	...	159.2	...	159.7	...
Milwaukee, Wis.	...	303.1	...	305.0	...	305.0	...	...	306.9	...	303.5	...	311.0	...
Minneapolis-St. Paul, Minn.-Wis.	301.7	...	306.1	...	305.8	...	309.4	301.2	...	306.1	...	309.0	...	312.4
New York, N.Y.-Northeastern N.J.	268.2	283.7	281.8	282.6	283.2	283.5	286.5	266.5	281.9	280.3	280.8	279.6	280.3	282.2
Northeast, Pa. (Scranton)	...	279.4	...	278.9	...	278.9	...	...	280.6	...	282.6	...	280.6	...
Philadelphia, Pa.-N.J.	275.1	282.9	281.6	282.1	282.9	283.0	283.5	274.5	282.0	281.0	282.5	283.3	285.5	286.8
Pittsburgh, Pa.	275.3	...	302.1	...	304.8	...	305.2	276.7	...	301.7	...	296.6	...	300.7
Portland, Oreg.-Wash.	...	285.6	...	286.6	...	284.7	...	...	283.5	...	281.7	...	283.0	...
St. Louis, Mo.-Ill.	...	290.0	...	291.1	...	293.2	...	...	288.9	...	285.3	...	293.2	...
San Diego, Calif.	...	321.7	...	324.9	...	327.5	...	...	318.2	...	313.6	...	315.4	...
San Francisco-Oakland, Calif.	298.8	...	293.9	...	297.3	...	299.3	297.8	...	293.6	...	293.9	...	294.7
Seattle-Everett, Wash.	...	297.5	...	297.5	...	297.8	...	...	294.1	...	291.4	...	290.8	...
Washington, D.C.-Md.-Va.	...	286.3	...	289.0	...	289.0	...	...	291.6	...	292.9	...	294.3	...

¹The 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.

²Average of 85 cities.

23. Producer Price Indexes, by stage of processing

[1967 = 100]

Commodity grouping	Annual average 1982	1982									1983				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May	
FINISHED GOODS															
Finished goods	280.6	277.8	279.9	281.7	282.3	281.2	284.1	284.9	285.5	283.9	283.7	283.4	283.0	284.3	
Finished consumer goods	281.0	277.7	280.1	282.1	282.8	281.9	284.3	285.3	285.6	283.5	283.0	282.5	282.0	283.5	
Finished consumer foods	259.3	262.3	263.4	260.6	259.7	259.9	257.7	257.4	258.3	258.4	259.9	260.8	262.9	262.6	
Crude	252.7	259.9	254.7	241.0	239.2	228.2	232.4	236.1	247.6	232.9	240.4	247.5	265.4	266.8	
Processed	257.7	260.3	262.0	260.2	259.4	260.6	257.9	257.2	257.1	258.5	259.5	259.9	260.5	260.1	
Nondurable goods less foods	333.6	324.3	328.7	335.3	337.2	338.3	340.0	342.5	342.2	336.6	332.5	330.6	328.0	332.0	
Durable goods	226.7	225.0	225.9	226.7	227.5	223.0	231.0	231.2	232.0	231.7	233.5	233.1	232.2	232.6	
Consumer nondurable goods less food and energy	223.8	223.1	223.5	223.7	224.3	225.5	227.8	228.4	229.2	228.3	227.7	228.1	229.8	230.2	
Capital equipment	279.4	278.1	279.2	280.2	280.7	278.8	283.2	283.8	284.9	285.2	286.2	286.5	286.5	286.8	
INTERMEDIATE MATERIALS															
Intermediate materials, supplies, and components	310.4	309.8	309.9	311.1	310.8	310.5	309.9	309.9	310.1	309.2	310.5	309.2	309.1	310.1	
Materials and components for manufacturing	289.8	291.4	289.8	289.2	288.7	289.9	289.4	288.7	288.3	288.6	291.3	290.3	291.1	292.0	
Materials for food manufacturing	255.1	260.0	260.7	259.7	258.0	257.3	254.2	251.0	249.8	250.9	253.0	252.5	254.8	256.8	
Materials for nondurable manufacturing	284.4	287.6	285.4	283.1	282.6	281.7	280.4	279.2	278.0	277.0	277.4	277.0	277.5	277.7	
Materials for durable manufacturing	310.1	311.0	307.5	308.0	306.5	310.5	309.8	309.3	309.4	312.0	319.1	315.0	316.4	318.4	
Components for manufacturing	273.9	273.6	273.6	273.9	274.3	275.8	276.7	276.9	277.3	276.8	278.1	279.0	279.0	279.6	
Materials and components for construction	293.7	293.7	294.5	294.3	293.5	294.2	293.7	293.6	294.7	296.5	298.6	299.4	300.1	300.5	
Processed fuels and lubricants	591.7	570.9	581.1	600.7	603.8	592.3	590.0	593.0	595.0	577.9	571.1	557.9	549.0	552.8	
Manufacturing industries	497.8	481.4	491.7	506.9	510.7	496.4	496.6	500.4	502.2	485.2	483.5	471.8	468.5	470.1	
Nonmanufacturing industries	674.3	649.5	659.5	683.0	685.5	676.9	672.1	674.2	676.4	659.4	647.8	633.4	619.2	624.9	
Containers	285.6	287.0	286.5	286.3	285.4	285.3	285.1	284.9	285.0	285.0	285.1	285.3	285.0	286.1	
Supplies	272.1	273.4	273.4	273.1	272.6	272.2	272.0	272.8	273.0	273.1	274.2	274.5	275.6	275.9	
Manufacturing industries	265.8	266.7	266.7	266.8	266.5	266.7	266.9	266.9	267.2	267.4	268.7	268.9	268.8	269.2	
Nonmanufacturing industries	275.7	277.2	277.1	276.7	276.0	275.3	274.9	276.1	276.3	276.4	277.3	277.6	279.4	279.6	
Feeds	207.0	214.2	213.1	210.3	203.1	198.1	192.9	199.8	204.7	206.5	207.6	207.8	219.1	218.0	
Other supplies	289.8	290.1	290.4	290.5	291.1	291.3	291.9	291.9	291.1	290.9	291.8	292.1	292.1	292.5	
CRUDE MATERIALS															
Crude materials for further processing	319.5	328.3	325.6	323.4	319.8	316.1	312.0	313.2	312.7	313.9	321.0	322.1	325.7	325.7	
Foodstuffs and feedstuffs	247.8	262.6	259.9	255.5	249.6	242.9	236.3	236.3	237.1	239.6	249.3	249.1	256.8	256.5	
Nonfood materials	473.9	470.2	467.7	469.8	471.0	473.7	474.8	478.6	475.3	473.6	475.5	479.4	474.4	475.1	
Nonfood materials except fuel	376.8	376.6	370.0	369.2	369.5	369.5	371.9	369.2	365.8	368.0	366.6	367.1	366.5	368.5	
Manufacturing industries	387.2	386.3	378.9	378.4	378.9	379.1	382.2	379.2	375.0	377.6	375.5	376.2	376.0	378.1	
Construction	270.3	274.5	274.2	271.4	270.3	268.8	266.3	265.6	268.1	267.5	270.8	270.2	267.2	267.6	
Crude fuel	886.1	864.8	883.9	901.3	906.9	923.5	917.2	954.7	952.2	930.7	949.1	970.0	943.2	936.8	
Manufacturing industries	1,034.8	1,006.7	1,032.0	1,053.9	1,061.1	1,083.6	1,075.3	1,125.5	1,121.4	1,093.8	1,118.7	1,144.8	1,109.4	1,102.2	
Nonmanufacturing industries	782.2	766.4	780.5	794.5	798.9	810.7	805.9	834.2	832.2	815.5	828.8	845.7	825.5	819.7	
SPECIAL GROUPINGS															
Finished goods excluding foods	285.8	281.0	283.4	286.7	287.9	286.3	290.8	292.0	292.5	290.3	289.6	288.8	287.5	289.3	
Finished consumer goods excluding foods	287.8	281.8	284.8	288.8	290.2	288.9	293.3	294.8	295.0	291.4	290.3	289.1	287.2	289.3	
Finished consumer goods less energy	244.1	244.3	245.1	244.5	244.7	243.9	246.5	246.7	247.6	247.1	248.0	248.4	249.5	249.6	
Intermediate materials less foods and feeds	315.7	314.6	314.7	316.1	316.0	315.9	315.5	315.5	315.7	314.6	315.9	314.5	314.0	315.0	
Intermediate materials less energy	290.4	291.6	290.8	290.4	289.7	290.5	290.1	289.8	290.0	290.5	292.6	292.3	293.1	293.9	
Intermediate foods and feeds	239.4	245.0	245.1	243.6	240.2	238.1	234.4	234.4	235.1	236.4	238.2	237.9	243.2	244.2	
Crude materials less agricultural products	536.3	531.5	529.1	531.5	532.0	535.5	537.2	541.9	537.4	536.0	537.5	541.7	535.9	536.2	
Crude materials less energy	240.4	252.8	248.7	245.1	240.7	235.6	230.0	229.2	229.9	232.5	241.6	242.8	248.4	248.8	

¹Data for January 1983 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. r = revised.

24. Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1982	1982							1983					
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May
	All commodities	299.3	298.6	299.3	300.4	300.2	299.3	299.8	300.3	300.7	299.9	301.2	300.5	300.8	301.7
	All commodities (1957-59 = 100)	317.6	316.8	317.6	318.7	318.5	317.6	318.1	318.6	319.0	318.2	319.6	318.8	319.1	320.1
	Farm products and processed foods and feeds	248.9	255.8	255.3	252.4	249.6	247.4	243.8	243.9	244.8	245.8	249.9	250.4	254.7	254.7
	Industrial commodities	312.3	309.6	310.6	312.8	313.2	312.7	314.3	315.0	315.2	313.9	314.4	313.4	312.6	313.8
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	242.4	256.5	252.7	246.6	240.8	234.5	299.2	230.7	232.6	233.2	240.8	241.4	250.5	250.3
01-1	Fresh and dried fruits and vegetables	253.7	271.5	264.5	239.1	238.6	221.0	223.0	233.4	248.8	227.6	227.2	234.3	266.0	259.5
01-2	Grains	210.9	228.2	225.7	212.8	197.2	187.3	183.2	198.6	262.3	206.3	222.4	227.4	243.8	242.2
01-3	Livestock	257.8	282.9	277.5	270.3	268.4	259.0	248.5	239.1	237.2	242.3	251.1	251.4	260.6	258.0
01-4	Live poultry	191.9	192.7	207.2	212.5	189.3	196.5	177.1	181.6	177.8	177.1	200.1	177.8	170.8	186.9
01-5	Plant and animal fibers	202.9	214.1	203.1	220.8	207.5	196.8	198.1	195.3	200.6	201.7	206.4	217.0	213.6	223.9
01-6	Fluid milk	282.5	278.8	278.9	279.0	278.8	281.9	285.0	285.9	285.5	284.5	284.5	282.9	280.8	279.8
01-7	Eggs	178.7	164.3	159.3	171.7	171.7	173.3	177.9	172.5	170.0	170.0	170.0	170.0	170.0	185.1
01-8	Hay, hayseeds, and oilseeds	212.8	227.3	219.3	220.0	204.5	201.8	194.3	204.8	209.0	212.4	217.9	217.8	226.3	227.3
01-9	Other farm products	274.5	273.9	271.8	265.5	274.4	276.8	274.0	276.3	280.1	279.9	282.0	280.3	279.2	281.0
02	Processed foods and feeds	251.5	254.4	255.8	254.6	253.5	253.5	250.8	250.2	250.5	251.7	253.9	254.3	256.0	256.1
02-1	Cereal and bakery products	253.8	252.8	252.7	253.0	262.7	254.0	253.0	254.2	256.2	257.3	257.3	257.4	259.1	259.8
02-2	Meats, poultry, and fish	257.6	267.6	271.2	266.0	252.2	265.7	256.9	251.6	249.9	252.3	257.7	260.1	259.3	257.7
02-3	Dairy products	248.9	248.5	248.7	248.6	248.8	249.1	249.8	250.2	250.8	250.7	251.0	250.7	251.0	250.9
02-4	Processed fruits and vegetables	274.5	273.8	275.8	274.4	274.1	272.8	273.4	272.8	275.7	274.8	273.9	272.9	273.8	275.0
02-5	Sugar and confectionery	269.7	265.3	269.1	275.7	285.5	278.5	276.3	280.4	280.1	282.1	286.4	283.7	286.7	289.5
02-6	Beverages and beverage materials	256.9	256.5	256.7	256.9	258.0	257.1	257.9	258.4	258.8	260.1	261.6	261.8	263.0	263.3
02-7	Fats and oils	215.1	222.3	221.8	221.3	215.6	211.4	213.8	207.2	203.0	201.7	205.6	205.0	213.4	219.4
02-8	Miscellaneous processed foods	248.6	248.0	248.6	248.1	245.9	247.0	247.9	247.8	248.6	248.8	248.9	248.5	249.9	249.9
02-9	Prepared animal feeds	211.3	217.4	216.4	213.9	207.5	204.3	199.8	206.0	210.1	211.6	212.4	212.5	222.3	221.2
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	204.6	205.4	205.0	204.1	204.2	204.3	204.1	203.9	202.6	202.7	202.4	203.2	203.3	203.9
03-1	Synthetic fibers (12/75 = 100)	162.1	163.4	162.8	161.5	162.2	162.5	161.1	161.2	159.7	156.7	155.4	156.3	155.4	157.2
03-2	Processed yarns and threads (12/75 = 100)	138.3	141.0	139.4	135.9	135.9	136.6	136.5	136.7	136.7	134.7	135.4	135.9	136.0	137.6
03-3	Gray fabrics (12/75 = 100)	145.3	145.9	146.0	144.9	144.6	143.6	143.7	144.1	143.3	144.4	144.4	145.0	146.2	146.0
03-4	Finished fabrics (12/75 = 100)	124.6	125.2	124.0	123.8	124.3	123.7	123.2	123.0	122.8	122.2	122.4	122.5	122.8	122.2
03-4	Apparel	194.4	194.5	195.0	194.8	195.1	195.4	195.7	195.4	193.0	194.4	193.3	194.6	194.7	195.1
03-81	Textile housefurnishings	238.5	239.5	239.7	238.2	236.4	238.2	236.2	236.2	236.2	236.5	238.7	238.5	238.5	241.9
04	Hides, skins, leather, and related products	262.6	263.2	261.8	263.1	262.0	263.5	263.2	263.2	264.1	266.7	265.0	265.9	267.1	270.1
04-2	Leather	311.4	309.8	307.7	307.4	304.9	309.2	309.5	312.8	314.4	314.4	312.7	316.0	317.9	324.5
04-3	Footwear	245.0	244.5	244.2	247.3	247.7	248.3	248.0	249.1	247.7	251.5	246.9	248.0	248.4	248.7
04-4	Other leather and related products	247.4	248.1	245.6	246.9	244.9	247.7	247.2	247.1	249.1	250.8	255.0	254.5	254.4	255.2
05	Fuels and related products and power	693.2	662.2	677.3	701.1	705.6	700.4	698.8	706.1	703.4	683.6	673.5	662.3	648.1	654.8
05-1	Coal	534.7	534.0	533.6	538.0	539.0	538.5	538.1	539.6	538.7	535.6	534.6	540.0	539.0	535.0
05-2	Coke	461.7	467.5	462.0	460.3	459.1	460.0	452.3	462.3	452.3	450.9	450.9	447.3	447.3	438.4
05-3	Gas fuels ²	1,060.8	1,001.2	1,027.5	1,054.3	1,074.6	1,112.2	1,130.1	1,190.0	1,181.2	1,147.3	1,169.2	1,190.5	1,158.4	1,159.0
05-4	Electric power	406.5	407.1	405.7	416.0	414.9	415.0	408.7	404.9	409.9	410.8	411.2	411.7	409.5	412.5
05-61	Crude petroleum ³	733.4	717.8	718.2	718.4	718.4	718.3	735.3	733.6	720.0	719.7	693.3	678.5	678.4	678.4
05-7	Petroleum products, refined ⁴	761.2	713.2	739.4	776.5	781.7	761.6	754.6	758.0	754.2	720.6	699.2	672.7	651.8	664.5
06	Chemicals and allied products	292.3	295.0	293.3	291.6	291.6	290.7	289.9	290.5	289.6	289.3	290.6	290.1	291.3	291.3
06-1	Industrial chemicals ⁵	352.6	357.1	351.2	349.1	349.1	346.5	345.8	345.2	342.4	339.3	341.0	339.4	339.7	339.8
06-21	Prepared paint	262.8	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	265.1	265.1	265.1	265.1
06-22	Paint materials	304.6	306.9	304.9	304.5	302.5	303.0	303.0	302.4	301.7	301.5	299.3	298.1	299.5	300.0
06-3	Drugs and pharmaceuticals	210.1	209.9	209.7	210.0	211.2	212.4	214.9	215.5	216.0	218.6	221.3	222.7	225.1	225.3
06-4	Fats and oils, inedible	267.1	288.4	287.5	278.2	254.2	254.1	242.3	239.6	240.8	242.0	253.4	262.0	278.8	286.2
06-5	Agricultural chemicals and chemical products	292.4	294.8	294.1	291.5	290.8	289.9	288.8	286.5	285.2	283.2	282.5	284.0	283.7	282.9
06-6	Plastic resins and materials	283.4	283.2	282.1	280.9	282.2	281.6	281.3	282.2	282.5	283.8	282.3	282.8	284.7	285.4
06-7	Other chemicals and allied products	270.1	272.7	273.8	271.1	272.3	271.2	268.6	272.3	272.0	272.8	274.8	272.2	273.4	272.3
07	Rubber plastic products	241.4	242.1	242.5	242.0	242.6	242.5	242.2	241.7	242.2	242.9	242.8	243.1	242.2	242.9
07-1	Rubber and rubber products	267.8	269.0	269.3	268.8	270.1	269.5	268.9	267.9	268.2	269.6	270.0	271.1	269.2	269.2
07-11	Crude rubber	278.9	283.7	282.5	280.3	278.7	276.6	272.5	270.9	271.1	271.1	274.2	281.1	280.6	280.5
07-12	Tires and tubes	255.2	254.9	255.3	255.0	257.8	255.6	255.7	254.5	256.0	259.1	250.4	250.1	246.6	246.5
07-13	Miscellaneous rubber products	276.9	278.8	279.5	279.4	279.7	281.6	281.4	280.7	279.7	284.5	290.8	291.9	291.6	291.8
07-2	Plastic products (6/78 = 100)	132.3	132.5	132.8	132.5	132.5	132.7	132.7	132.7	133.0	133.0	132.8	132.6	132.5	133.4
08	Lumber and wood products	284.7	284.6	289.0	288.6	284.2	283.0	279.4	279.9	285.6	293.3	302.7	305.0	305.4	306.2
08-1	Lumber	310.8	310.5	315.8	319.2	311.6	310.3	305.6	305.1	312.6	326.8	343.6	348.2	352.8	357.3
08-2	Millwork	279.4	276.3	280.5	282.3	280.2	279.5	278.6	280.3	286.5	293.7	300.5	304.0	302.7	298.8
08-3	Plywood	232.1	230.5	239.2	232.4	229.0	228.5	224.0	227.8	231.2	235.3	239.3	238.8	239.3	240.9
08-4	Other wood products	236.2	237.4	236.0	236.0	235.8	235.6	235.8	233.0	231.2	232.0	233.2	231.6	230.8	231.1

See footnotes at end of table.

24. Continued—Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1982	1982								1983				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May
INDUSTRIAL COMMODITIES—Continued															
09	Pulp, paper, and allied products	288.7	289.6	289.5	289.1	289.3	289.4	289.8	289.8	290.5	¹ 293.6	293.3	293.8	295.1	295.7
09-1	Pulp, paper, and products, excluding building paper and board	273.2	274.8	274.1	272.6	272.2	271.5	270.3	269.4	268.8	¹ 269.8	269.0	269.1	268.8	269.1
09-11	Woodpulp	379.0	393.3	388.0	368.3	367.0	365.0	350.4	347.3	347.2	¹ 346.6	349.5	346.7	344.5	345.8
09-12	Wastepaper	121.1	121.5	115.2	115.6	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0
09-13	Paper	286.3	288.2	287.8	286.3	285.3	285.3	285.4	280.6	¹ 279.2	¹ 279.3	279.1	278.6	278.7	279.1
09-14	Paperboard	254.9	258.8	255.9	255.0	255.4	250.7	248.0	247.6	244.1	¹ 243.3	244.0	246.6	248.4	248.9
09-15	Converted paper and paperboard products	264.4	264.3	264.5	264.4	264.3	264.2	264.0	264.7	264.8	265.0	254.1	265.2	264.5	264.5
09-2	Building paper and board	239.5	240.2	240.0	239.8	244.4	243.4	242.1	241.0	242.0	¹ 241.1	240.8	243.3	246.1	249.3
10	Metals and metal products	301.6	302.8	299.3	299.5	299.2	301.8	301.6	300.5	299.9	¹ 300.3	306.1	305.4	305.3	306.7
10-1	Iron and steel	339.0	341.3	338.3	337.5	337.1	336.5	337.6	335.9	332.8	¹ 333.3	340.3	341.8	341.7	341.1
10-17	Steel mill products	349.5	352.1	349.9	349.0	348.6	348.2	349.8	348.6	344.7	¹ 343.7	351.8	350.1	350.1	350.0
10-2	Nonferrous metals	263.6	263.6	253.4	256.4	255.7	265.1	262.9	261.7	263.2	¹ 267.0	275.5	268.8	271.7	277.9
10-3	Metal containers	328.5	330.2	329.9	330.0	328.8	328.8	329.7	329.0	328.3	¹ 327.9	330.3	331.6	332.0	337.4
10-4	Hardware	280.3	278.9	280.3	281.2	382.6	282.7	283.0	283.1	285.8	¹ 287.2	285.6	285.9	286.3	286.2
10-5	Plumbing fixtures and brass fittings	278.7	281.0	282.6	283.3	274.6	277.1	277.8	278.3	279.2	280.6	283.4	285.5	287.5	288.8
10-6	Heating equipment	237.2	237.2	238.5	238.9	238.4	239.1	238.4	238.8	239.3	¹ 240.7	240.8	241.1	242.3	242.4
10-7	Fabricated structural metal products	304.8	304.9	305.3	303.9	304.3	306.4	305.9	305.3	304.7	¹ 303.6	302.5	303.7	302.6	302.1
10-8	Miscellaneous metal products	282.3	284.5	283.9	283.2	283.3	283.8	284.1	283.4	283.2	¹ 279.1	288.6	289.8	285.3	284.9
11	Machinery and equipment	278.8	278.2	278.6	279.6	279.9	280.2	281.1	281.8	282.4	¹ 283.3	283.6	284.0	284.9	285.6
11-1	Agricultural machinery and equipment	311.1	308.2	309.7	311.0	312.2	314.1	317.5	318.7	320.7	¹ 322.4	322.5	322.8	324.8	326.0
11-2	Construction machinery and equipment	343.9	343.5	343.9	346.1	346.5	347.5	347.6	347.9	348.1	¹ 348.3	348.1	349.6	350.8	352.2
11-3	Metalworking machinery and equipment	320.9	320.7	321.2	322.5	322.8	323.1	323.1	323.5	323.6	¹ 324.1	324.5	324.8	325.6	326.1
11 4	General purpose machinery and equipment	304.0	303.8	303.5	304.8	304.9	305.0	305.9	306.4	307.0	¹ 307.4	307.5	307.3	307.9	308.4
11-6	Special industry machinery and equipment	325.1	323.9	325.0	327.1	326.7	326.8	327.8	329.1	329.9	¹ 331.8	332.9	333.7	334.4	335.6
11-7	Electrical machinery and equipment	231.6	231.3	231.5	231.6	231.8	231.7	232.6	233.7	234.2	¹ 235.2	235.8	236.1	237.3	237.7
11-9	Miscellaneous machinery	268.4	267.9	268.5	269.5	270.9	271.5	271.6	272.0	272.3	¹ 272.9	272.5	273.5	274.0	275.2
12	Furniture and household durables	206.9	206.5	207.0	206.8	208.1	208.3	208.9	208.9	209.2	¹ 210.7	211.7	212.1	213.1	213.3
12-1	Household furniture	229.8	230.0	230.2	230.0	230.4	230.7	231.2	231.4	232.0	¹ 231.9	231.6	232.9	233.7	234.3
12-2	Commercial furniture	275.5	275.2	276.0	277.4	278.1	278.2	278.3	278.6	278.5	¹ 281.1	282.6	285.4	286.7	286.6
12-3	Floor coverings	181.2	181.3	181.9	181.2	181.0	181.5	181.6	181.3	181.5	¹ 182.2	181.2	181.0	181.4	181.3
12-4	Household appliances	199.1	198.9	199.6	200.2	201.0	201.2	201.3	201.2	201.8	¹ 203.9	203.2	203.4	205.2	205.7
12-5	Home electronic equipment	88.1	88.0	88.4	87.2	88.0	87.4	87.8	87.0	87.1	¹ 87.3	87.2	87.2	86.9	86.7
12-6	Other household durable goods	289.3	285.4	286.1	285.1	291.8	293.4	296.5	297.2	298.1	¹ 302.8	313.9	311.7	313.3	313.7
13	Nonmetallic mineral products	320.2	321.2	320.9	321.1	320.5	321.2	321.1	321.2	320.5	321.5	321.9	321.9	323.7	324.2
13-11	Flat glass	221.5	226.4	226.4	226.1	221.1	221.1	221.1	225.3	225.3	¹ 229.7	229.7	229.7	229.7	229.7
13-2	Concrete ingredients	310.0	312.5	312.7	311.8	311.2	310.8	309.9	310.0	306.7	¹ 307.2	309.6	309.0	310.6	314.8
13-3	Concrete products	297.8	298.2	298.5	298.8	299.0	298.7	298.6	298.2	298.5	¹ 299.4	299.5	300.1	300.3	301.0
13-4	Structural clay products, excluding refractories	260.8	258.6	258.9	259.3	263.9	264.0	264.0	264.8	264.8	¹ 264.9	264.4	270.9	275.3	277.0
13-5	Refractories	337.1	339.5	340.4	340.4	340.7	340.8	340.8	337.2	337.2	¹ 337.7	338.2	338.2	338.7	338.7
13-6	Asphalt roofing	298.4	385.5	396.4	399.8	400.1	413.4	406.7	399.0	397.0	¹ 393.7	378.9	373.2	389.0	378.6
13-7	Gypsum products	256.1	259.4	256.4	255.8	253.9	253.9	255.1	255.0	253.9	¹ 263.1	263.4	263.4	271.4	275.3
13-8	Glass containers	355.5	358.1	358.1	358.1	358.0	358.6	358.5	357.8	357.6	¹ 356.6	355.8	354.1	353.8	351.8
13-9	Other nonmetallic minerals	471.8	471.3	465.2	466.6	466.0	467.7	470.4	471.3	471.0	¹ 471.5	476.1	476.3	478.6	478.1
14	Transportation equipment (12/68 = 100)	249.7	247.5	249.1	249.8	250.6	244.5	256.0	256.3	257.5	¹ 256.3	257.3	257.1	255.6	256.0
14-1	Motor vehicles and equipment	251.3	249.2	251.1	252.0	252.8	244.6	257.8	257.8	258.1	¹ 257.0	258.1	257.7	255.9	256.2
14-2	Railroad equipment	346.5	342.8	342.8	342.6	347.7	348.0	350.8	350.8	350.8	¹ 350.8	357.3	357.4	357.2	357.1
15	Miscellaneous products	276.4	272.2	271.5	273.4	272.0	279.5	285.4	285.2	290.4	¹ 285.7	285.7	284.4	287.6	287.1
15-1	Toys, sporting goods, small arms, ammunition	221.5	221.8	221.9	222.0	223.5	221.8	221.2	221.3	223.7	¹ 222.7	225.6	226.2	226.8	226.5
15-2	Tobacco products	323.1	307.0	307.0	311.5	311.5	329.1	365.4	364.5	382.9	¹ 356.2	338.1	335.1	354.7	353.9
15-3	Notions	277.0	280.1	280.1	280.1	280.1	280.1	280.1	279.8	279.8	280.5	280.6	280.6	380.3	280.3
15-4	Photographic equipment and supplies	210.4	210.6	210.4	208.9	208.9	209.9	209.7	209.7	210.0	¹ 210.0	212.1	216.9	216.9	216.9
15-5	Mobile homes (12/74 = 100)	161.9	162.5	162.4	162.6	162.8	162.9	162.6	161.6	161.7	¹ 161.8	161.3	163.3	162.5	162.3
15-9	Other miscellaneous products	338.3	331.3	328.6	333.7	327.0	345.2	345.2	345.1	351.6	¹ 350.8	359.2	349.9	349.8	348.6

¹Data for January 1983 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.

²Prices for natural gas are lagged 1 month.

³Includes only domestic production.

⁴Most prices for refined petroleum products are lagged 1 month.

⁵Some prices for industrial chemicals are lagged 1 month.

r = revised.

25. Producer Price Indexes, for special commodity groupings

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1982	1982									1983				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May	
All commodities—less farm products	303.0	301.2	302.2	303.9	304.1	303.7	304.7	305.1	305.4	304.4	305.2	304.4	304.0	305.0	
All foods	254.4	257.9	259.0	256.6	255.8	255.3	252.8	251.9	252.7	252.4	254.7	255.5	258.1	258.2	
Processed foods	256.0	259.0	260.8	259.5	258.7	259.2	256.2	254.7	254.7	255.8	258.2	258.6	259.5	259.6	
Industrial commodities less fuels	272.8	272.8	272.4	272.5	272.6	272.5	274.4	274.4	274.9	275.4	277.0	277.0	277.5	278.1	
Selected textile mill products (Dec. 1975 = 100)	138.2	138.7	138.2	137.6	137.8	137.8	137.4	137.1	136.8	136.7	136.7	137.1	137.2	137.2	
Hosiery	138.3	138.5	138.5	138.5	138.5	138.7	138.7	139.7	139.7	141.7	144.5	144.5	144.5	144.5	
Underwear and nightwear	217.6	215.9	217.4	218.8	218.6	219.6	220.1	219.7	219.7	223.3	222.3	223.8	223.8	224.0	
Chemicals and allied products, including synthetic rubber and fibers and yarns	283.8	286.1	284.5	282.9	283.3	282.5	281.8	282.3	281.4	280.8	281.6	281.1	281.9	281.9	
Pharmaceutical preparations	206.0	205.8	206.4	206.9	207.4	209.0	211.7	212.3	212.8	215.8	218.4	220.0	222.9	223.2	
Lumber and wood products, excluding millwork	288.8	288.1	294.5	294.8	288.3	287.2	282.5	283.4	289.6	300.7	313.5	316.4	319.8	323.3	
Steel mill products, including fabricated wire products	349.4	352.1	349.9	348.4	348.1	347.8	349.1	348.5	344.8	343.1	350.5	348.8	348.7	348.7	
Finished steel mill products, excluding fabricated wire products	348.4	350.9	348.8	347.7	347.3	346.9	348.6	348.0	344.0	342.1	350.5	348.7	348.8	348.7	
Finished steel mill products, including fabricated wire products	348.1	350.9	348.8	347.0	346.7	346.3	347.8	347.2	343.3	341.6	349.1	347.4	347.3	347.3	
Special metals and metal products	286.6	286.3	285.2	285.7	286.8	284.0	289.5	288.9	288.7	288.6	292.3	291.8	291.0	292.1	
Fabricated metal products	291.6	292.6	292.8	292.0	291.9	292.9	293.0	292.5	292.5	291.1	294.2	295.3	293.4	293.9	
Copper and copper products	185.5	193.0	179.7	179.2	179.8	181.0	178.8	181.2	181.8	190.7	201.6	199.0	201.0	206.7	
Machinery and motive products	272.1	270.7	271.7	272.8	273.3	270.7	276.4	277.0	277.9	277.8	278.5	278.6	278.5	279.0	
Machinery and equipment, except electrical	306.4	305.7	306.2	307.6	308.1	308.6	309.4	310.0	310.6	311.3	311.6	312.1	312.8	313.6	
Agricultural machinery, including tractors	323.1	319.9	321.3	321.8	322.8	325.5	330.6	332.2	335.1	337.0	337.1	337.4	340.1	341.1	
Metalworking machinery	350.4	349.3	350.1	352.8	353.1	353.5	354.1	354.2	354.1	354.6	355.9	355.7	356.3	358.0	
Numerically controlled machine tools (Dec. 1971 = 100)	239.6	239.9	240.0	239.2	239.2	239.4	239.4	239.4	239.4	237.7	238.7	236.8	235.0	238.6	
Total tractors	355.0	353.6	354.1	354.8	355.5	359.6	361.4	361.4	364.2	365.6	365.6	365.7	370.4	370.5	
Agricultural machinery and equipment less parts	313.8	311.0	312.2	312.8	313.8	315.8	320.1	321.5	324.3	325.9	326.1	326.4	328.7	329.6	
Farm and garden tractors less parts	327.8	325.0	325.8	325.4	326.0	333.0	336.1	336.1	340.3	342.2	342.2	342.2	348.7	348.8	
Agricultural machinery, excluding tractors less parts	319.6	316.1	317.8	319.1	320.4	319.6	326.4	329.3	331.1	333.1	333.3	333.7	333.4	335.1	
Construction materials	288.0	288.2	289.5	289.2	288.3	288.4	288.0	287.8	287.9	290.3	294.4	294.9	195.5	296.3	

¹Data for January 1983 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. r = revised.

26. Producer Price Indexes, by durability of product

[1967 = 100]

Commodity grouping	Annual average 1982	1982									1983				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May	
Total durable goods	279.0	278.5	278.3	278.9	278.8	278.6	281.2	281.2	282.0	282.6	285.2	285.1	285.1	285.9	
Total nondurable goods	315.3	314.5	316.0	317.6	317.1	315.7	314.3	315.3	315.3	313.3	313.5	312.4	312.8	313.9	
Total manufactures	292.7	291.3	292.4	293.7	293.8	292.9	293.8	293.9	294.3	293.5	294.1	293.0	292.9	293.9	
Durable	279.8	279.2	279.3	279.9	279.8	279.5	282.3	282.4	283.2	283.7	286.1	285.8	285.8	286.6	
Nondurable	306.4	304.0	306.3	308.5	308.6	307.1	306.0	306.1	305.9	303.8	302.3	300.5	300.2	301.4	
Total raw or slightly processed goods	331.2	335.1	333.4	333.2	331.1	329.9	327.9	330.9	331.6	330.4	336.2	338.1	340.7	341.2	
Durable	233.8	239.7	225.4	225.3	225.0	226.2	224.2	219.2	217.4	224.2	236.3	244.3	244.9	246.9	
Nondurable	337.3	341.1	340.3	340.1	337.9	336.5	334.5	338.1	339.0	337.2	342.5	343.9	346.7	347.0	

¹Data for January 1983 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. r = revised.

27. Producer Price Indexes for the output of selected SIC industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1982	1982									1983				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May	
MINING																
1011	Iron ores (12/75 = 100)	175.2	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1
1092	Mercury ores (12/75 = 100)	312.2	308.3	307.5	306.2	287.5	289.5	312.5	308.3	312.5	306.2	289.5	285.4	272.9	268.7	268.7
1311	Crude petroleum and natural gas	925.8	901.2	914.3	924.3	926.7	937.6	945.9	969.0	958.4	945.2	938.4	939.5	922.9	922.7	922.7
1455	Kaolin and ball clay (6/76 = 100)	151.2	151.7	151.7	151.7	151.7	151.7	151.7	151.7	151.7	153.6	156.3	158.4	164.3	164.3	164.3
MANUFACTURING																
2021	Creamery butter	276.0	274.9	274.9	275.0	276.3	276.8	276.8	276.5	277.8	275.5	275.6	275.6	275.6	275.6	275.6
2024	Ice cream and frozen desserts (12/72 = 100)	214.4	214.2	214.2	213.6	213.6	216.5	216.5	216.5	216.5	216.5	217.7	217.7	218.6	218.6	218.6
2041	Flour mills (12/71 = 100)	186.2	188.4	189.1	185.5	180.2	182.2	179.6	184.8	185.5	182.6	181.7	183.8	191.9	187.0	187.0
2044	Rice milling	185.1	183.0	180.3	177.6	183.0	183.0	183.0	175.2	196.1	191.3	183.0	183.0	188.9	191.3	191.3
2067	Chewing gum	304.1	303.4	303.4	303.3	304.7	304.7	304.8	306.0	306.1	326.0	326.0	326.1	326.1	326.1	326.1
2074	Cottonseed oil mills	168.3	167.9	170.2	174.6	173.1	164.4	157.6	164.1	169.4	157.5	160.4	153.8	172.0	172.2	172.2
2083	Malt	256.9	259.8	259.8	259.8	259.8	251.2	251.2	240.6	240.6	232.6	232.6	232.6	232.6	232.6	232.6
2085	Distilled liquor, except brandy (12/75 = 100)	140.1	139.8	139.8	139.8	140.4	140.4	140.4	141.3	141.3	141.3	141.3	141.3	141.3	141.3	141.3
2091	Canned and cured seafoods (12/73 = 100)	187.0	188.0	188.4	187.8	184.3	186.2	186.3	186.4	186.6	182.8	179.2	177.9	177.8	175.7	175.7
2098	Macaroni and spaghetti	258.5	259.5	259.5	259.5	259.5	259.5	255.5	255.5	255.5	255.5	255.5	255.5	255.5	255.5	255.5
2251	Women's hosiery, except socks (12/75 = 100)	116.8	116.9	116.9	116.8	116.9	116.9	116.9	118.5	118.3	118.5	122.7	122.8	122.8	122.8	122.8
2261	Finishing plants, cotton (6/76 = 100)	139.5	141.5	141.4	140.3	139.8	138.5	136.8	136.2	136.1	135.3	136.0	136.1	135.6	135.6	132.8
2262	Finishing plants, synthetics, silk (6/76 = 100)	128.2	128.4	127.6	126.8	129.0	128.2	127.5	127.8	127.3	125.7	125.5	125.0	125.6	125.3	125.3
2284	Thread mills (6/76 = 100)	157.2	156.6	156.6	156.5	158.0	158.0	157.9	157.9	157.8	157.9	161.9	165.6	165.7	165.7	165.7
2298	Cordage and twine (12/77 = 100)	141.5	141.0	141.0	141.0	141.0	142.6	142.6	142.6	142.6	142.6	142.7	142.8	137.6	137.6	137.6
2321	Men's and boys' shirts and nightwear	215.1	217.5	217.8	218.1	218.2	221.5	221.6	221.6	221.0	224.2	223.5	222.5	222.8	223.0	223.0
2323	Men's and boys' neckwear (12/75 = 100)	119.5	117.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3
2331	Women's and misses' blouses and waists (6/78 = 100)	126.8	126.5	126.6	126.4	126.7	126.6	126.7	128.5	127.6	127.7	124.7	125.3	125.3	125.3	125.3
2361	Children's dresses and blouses (12/77 = 100)	120.6	122.2	122.2	119.0	123.3	118.6	118.6	117.0	117.0	117.0	117.0	115.5	115.5	115.5	115.5
2381	Fabric dress and work gloves	292.1	295.5	294.5	294.5	288.2	288.2	287.4	287.4	287.4	288.8	288.8	288.8	291.0	291.7	291.7
2394	Canvas and related products (12/77 = 100)	145.4	145.9	143.1	143.1	143.1	144.8	147.3	147.3	147.3	148.7	149.4	146.8	146.8	146.8	146.8
2396	Automotive and apparel trimmings (12/77 = 100)	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
2448	Wood pallets and skids (12/75 = 100)	145.6	144.7	144.2	144.1	143.9	143.8	144.3	144.2	144.6	144.6	145.1	145.6	146.8	148.3	148.3
2515	Mattresses and bedsprings	205.7	205.9	205.9	205.7	205.9	206.0	206.0	206.0	206.0	204.4	208.7	208.7	208.8	209.7	209.7
2521	Wood office furniture	270.3	270.8	270.8	270.9	271.3	271.3	271.4	271.4	271.4	271.4	272.5	278.7	281.5	281.5	281.5
2647	Sanitary paper products	348.7	343.6	346.2	345.9	351.5	352.3	351.8	357.8	355.9	356.2	359.6	359.6	357.2	355.8	355.8
2654	Sanitary food containers	259.7	259.9	259.9	259.9	259.9	260.8	261.7	261.7	261.7	261.7	263.1	266.7	266.6	266.7	266.7
2655	Fiber cans, drums, and similar products (12/75 = 100)	177.8	176.7	176.7	176.7	177.5	177.5	177.9	180.7	183.8	183.8	183.8	183.8	185.5	185.5	185.5
2911	Petroleum refining (6/76 = 100)	278.3	259.2	267.9	281.5	283.7	279.6	278.3	280.1	278.3	267.2	258.5	249.7	241.4	246.7	246.7
2952	Asphalt felts and coating (12/75 = 100)	173.5	168.4	173.1	174.7	174.4	180.4	177.2	173.7	172.9	171.4	165.1	162.6	169.1	164.4	164.4
3031	Reclaimed rubber (12/73 = 100)	207.9	209.5	210.7	209.9	209.7	209.8	209.8	209.3	208.8	209.4	207.4	207.0	206.7	209.4	209.4
3251	Brick and structural clay tile	307.4	304.5	305.0	305.9	313.8	314.0	314.0	315.5	315.5	315.7	317.1	329.8	333.7	334.9	334.9
3253	Ceramic wall and floor tile (12/75 = 100)	140.6	140.6	140.6	140.6	140.7	140.7	140.7	140.7	140.7	140.7	138.0	138.1	138.1	139.7	139.7
3255	Clay refractories	352.8	355.5	356.2	356.3	358.8	356.9	357.0	350.3	350.3	351.1	352.0	352.1	353.1	353.1	353.1
3259	Structural clay products, n.e.c.	219.7	215.8	215.9	215.9	219.0	219.0	219.0	218.9	219.0	219.0	219.5	219.4	232.8	234.8	234.8
3261	Vitreous plumbing fixtures	265.0	265.4	265.5	264.2	263.9	267.2	269.1	270.3	269.7	272.1	273.3	275.1	175.3	276.0	276.0
3262	Vitreous china food utensils	357.8	355.5	360.2	360.2	360.2	360.2	360.8	370.2	377.7	380.1	369.2	369.2	369.2	369.2	369.2
3263	Fine earthenware food utensils	318.2	316.2	316.9	316.9	316.9	316.9	323.5	324.8	326.0	365.7	363.5	363.5	363.5	363.6	363.6
3269	Pottery products, n.e.c. (12/75 = 100)	167.3	166.3	167.4	167.4	167.4	167.4	169.6	171.9	173.7	186.5	183.8	183.8	183.8	183.8	183.8
3274	Lime (12/75 = 100)	186.3	188.0	188.3	188.0	188.0	187.8	187.7	187.5	185.7	187.3	185.8	185.4	188.1	185.5	185.5
3297	Nonclay refractories (12/74 = 100)	201.8	203.2	203.8	203.8	203.8	203.8	203.8	203.7	203.6	203.7	203.6	203.6	203.8	203.7	203.7
3313	Electrometallurgical products (12/75 = 100)	121.4	120.3	120.4	120.4	121.4	121.4	121.3	121.3	121.2	121.1	121.2	121.1	119.0	116.9	116.9
3425	Hand saws and saw blades (12/72 = 100)	219.1	221.3	221.4	221.5	221.6	221.6	221.6	221.8	221.6	221.9	226.0	225.9	225.9	225.6	225.6
3482	Small arms ammunition (12/75 = 100)	164.2	166.3	170.3	170.3	170.3	149.0	150.1	150.6	174.1	175.1	180.9	187.7	187.6	187.6	187.6
3623	Welding apparatus, electric (12/72 = 100)	239.6	237.6	237.8	241.6	242.4	242.8	243.0	243.3	243.3	243.6	238.9	238.3	238.1	237.9	237.9
3636	Sewing machines (12/75 = 100)	154.6	154.3	154.3	154.3	153.6	153.6	154.2	154.2	154.2	154.2	153.8	154.4	156.1	156.1	156.1
3641	Electric lamps	294.0	294.5	293.9	291.8	293.7	296.3	302.9	303.0	303.4	306.0	311.1	311.4	316.3	313.8	313.8
3648	Lighting equipment, n.e.c. (12/75 = 100)	170.0	171.2	171.1	171.1	171.2	171.2	171.3	171.3	171.4	171.4	171.7	171.7	172.6	172.6	172.6
3671	Electron tubes, receiving type	382.1	374.4	374.5	375.4	375.4	380.2	380.3	414.0	414.1	431.6	432.0	431.9	431.9	431.9	431.9
3942	Dolls (12/75 = 100)	136.7	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	137.1	136.5	136.5	137.4	137.4	137.4
3944	Games, toys, and children's vehicles	234.0	234.3	234.3	234.4	234.4	234.8	235.3	235.3	235.5	235.3	238.6	237.4	237.9	237.9	237.9
3955	Carbon paper and inked ribbons (12/75 = 100)	140.0	140.5	140.6	140.4	140.5	139.3	139.3	139.2	139.4	139.2	139.2	139.2	139.2	139.2	139.2
1995	Burial caskets (6/76 = 100)	148.4	149.3	149.3	150.8	150.8	150.8	150.8	150.8	150.8	147.0	152.1	152.1	152.1	152.1	152.1
3996	Hard surface floor coverings (12/75 = 100)	155.9	158.3	154.3	155.0	155.7	156.9	158.9	158.9	156.8	159.2	159.2	159.2	159.4	159.4	159.4

¹Data for January 1983 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.

NOTE: Indexes which were deleted in the March issue may now be found in Table 4 of the BLS monthly report, *Producer Prices and Price Indexes*.
r = revised.

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 27 through 30, 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 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 1982 issue of the *Review*, all of the productivity and cost measures contained in these tables are based on revised output and compensation measures released by the Bureau of Economic Analysis in July as part of the regular revision cycle of the National Income and Product Accounts. Measures of labor input have been revised to reflect results of the 1980 census, and seasonal factors have been re-computed for use in the preparation of quarterly measures. The word "private" is no longer being used as part of the series title of one of the two business sector measures prepared by BLS; no change has been made in the definition or content of the measures as a result of this change.

28. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-82

[1977 = 100]

Item	1950	1955	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982
Business sector:													
Output per hour of all persons	50.4	58.3	65.2	78.3	86.2	94.5	97.6	100.0	100.6	99.6	98.9	100.7	101.0
Compensation per hour	20.0	26.4	33.9	41.7	58.2	85.5	92.9	100.0	108.6	119.1	131.4	144.1	154.5
Real compensation per hour	50.5	59.6	69.5	80.1	90.8	96.3	98.9	100.0	100.9	99.4	96.7	96.0	97.0
Unit labor costs	39.7	45.2	52.0	53.3	67.5	90.5	95.1	100.0	108.0	119.5	132.9	143.1	152.9
Unit nonlabor payments	43.4	47.6	50.6	57.6	63.2	90.4	94.0	100.0	106.7	112.8	119.3	135.2	138.7
Implicit price deflator	41.0	46.0	51.6	54.7	66.0	90.5	94.7	100.0	107.5	117.2	128.3	140.4	148.1
Nonfarm business sector:													
Output per hour of all persons	56.3	62.8	68.3	80.5	86.8	94.7	97.8	100.0	100.6	99.3	98.5	99.9	100.0
Compensation per hour	21.8	28.3	35.7	42.8	57.7	86.0	93.0	100.0	108.6	118.8	130.9	143.6	154.0
Real compensation per hour	55.0	64.0	73.0	82.2	91.5	96.8	99.0	100.0	100.9	99.2	96.3	95.7	96.7
Unit labor costs	38.8	45.0	52.2	43.2	67.6	90.8	95.1	100.0	108.0	119.6	133.0	143.8	154.0
Unit nonlabor payments	42.7	47.8	50.4	58.0	63.7	88.5	93.5	100.0	105.3	110.3	119.1	134.8	139.0
Implicit price deflator	40.1	46.0	51.6	54.8	66.3	90.0	94.6	100.0	107.1	116.5	128.3	140.8	149.0
Nonfinance corporations:													
Output per hour of all persons	(¹)	(¹)	68.0	81.9	87.4	95.5	98.2	100.0	100.9	100.7	100.3	102.0	103.0
Compensation per hour	(¹)	(¹)	37.0	43.9	59.4	86.1	902.9	100.0	108.5	118.7	130.9	143.5	154.1
Real compensation per hour	(¹)	(¹)	75.8	84.3	92.7	96.9	98.9	100.0	100.8	99.1	96.2	95.6	96.8
Unit labor costs	(¹)	(¹)	54.4	53.5	68.0	90.2	94.6	100.0	107.5	117.8	130.5	140.6	149.6
Unit nonlabor payments	(¹)	(¹)	54.6	60.8	63.1	90.8	95.0	100.0	104.2	106.9	117.7	134.8	140.5
Implicit price deflator	(¹)	(¹)	54.5	56.1	66.3	90.4	94.7	100.0	106.4	114.1	126.1	138.6	146.5
Manufacturing:													
Output per hour of all persons	49.4	56.4	60.0	74.5	79.1	93.4	97.5	100.0	100.9	101.5	101.7	104.5	103.5
Compensation per hour	21.5	28.8	36.7	42.8	57.6	85.4	92.3	100.0	108.3	118.9	132.8	146.4	158.8
Real compensation per hour	54.0	65.1	75.1	82.3	89.8	96.2	98.3	100.0	100.6	99.2	97.7	97.5	99.7
Unit labor costs	43.4	51.0	61.1	57.5	72.7	91.5	94.6	100.0	107.4	117.1	130.6	140.0	153.4
Unit nonlabor payments	54.3	58.5	61.1	69.3	65.0	87.3	93.7	100.0	102.5	99.9	97.1	108.8	(¹)
Implicit price deflator	46.6	53.2	61.1	61.0	70.5	90.3	94.4	100.0	106.0	112.0	120.8	130.8	(¹)

¹ Not available.

29. Annual changes in productivity, hourly compensation, unit costs, and prices, 1972-82

Item	Year											Annual rate of change	
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1950-82	1972-82
Business sector:													
Output per hour of all persons	3.5	2.6	-2.4	2.2	3.3	2.4	0.6	-0.9	-0.7	1.8	0.4	¹ 2.2	¹ 0.9
Compensation per hour	6.5	8.0	9.4	9.6	8.6	7.7	8.6	9.7	10.4	9.6	7.3	¹ 6.6	¹ 8.9
Real compensation per hour	3.1	1.6	-1.4	0.5	2.6	1.2	0.9	-1.4	-2.8	-0.7	1.1	¹ 2.1	0.1
Unit labor costs	2.9	5.3	12.1	7.3	5.1	5.1	8.0	10.7	11.2	7.7	6.9	¹ 4.3	¹ 7.9
Unit nonlabor payments	4.5	5.9	4.4	15.1	4.0	6.4	6.7	5.7	5.8	13.3	¹ 2.6	¹ 3.7	¹ 6.9
Implicit price deflator	3.4	5.5	9.5	9.8	4.7	5.6	7.5	9.0	9.4	9.5	5.5	4.1	¹ 7.6
Nonfarm business sector:													
Output per hour of all persons	3.7	2.4	-2.5	2.0	3.2	2.2	0.6	-1.3	-0.9	1.4	0.1	¹ 1.8	¹ 0.7
Compensation per hour	6.7	7.6	9.4	9.6	8.1	7.5	8.6	9.3	10.2	9.7	7.2	¹ 6.3	¹ 8.7
Real compensation per hour	3.3	1.3	-1.4	0.4	2.2	1.0	0.9	-1.7	-2.9	-0.7	1.0	¹ 1.8	0.0
Unit labor costs	2.9	5.0	12.2	7.5	4.7	5.2	8.0	10.7	11.2	8.1	7.1	¹ 4.4	¹ 7.9
Unit nonlabor payments	3.2	1.3	5.9	16.7	5.7	6.9	5.3	4.7	8.0	13.1	3.2	¹ 3.7	¹ 7.0
Implicit price deflator	3.0	3.8	10.2	10.3	5.0	5.7	7.1	8.8	10.2	9.7	5.8	¹ 4.2	¹ 7.6
Nonfinancial corporations:													
Output per hour of all employees	2.9	2.4	-3.7	2.9	2.9	1.8	0.9	-0.2	-0.4	1.7	1.0	(¹)	¹ 0.9
Compensation per hour	5.7	7.5	9.4	9.6	7.9	7.6	8.5	9.4	10.3	9.6	7.4	(¹)	¹ 8.7
Real compensation per hour	2.4	1.2	-1.5	0.4	2.0	1.1	0.8	-1.7	-2.9	-0.7	1.2	(¹)	0.0
Unit labor costs	2.8	4.9	13.6	6.5	4.9	5.7	7.5	9.6	10.7	7.8	6.4	(¹)	7.7
Unit nonlabor payments	2.7	1.5	7.1	20.1	4.5	5.3	4.2	2.6	10.1	14.6	4.2	(¹)	¹ 7.3
Implicit price deflator	2.8	3.8	11.4	10.9	4.8	5.6	6.4	7.2	10.5	10.0	5.7	(¹)	7.6
Manufacturing:													
Output per hour of all persons	5.0	5.4	-2.4	2.9	4.4	2.5	0.9	0.7	0.2	2.8	-1.0	¹ 2.3	¹ 1.6
Compensation per hour	5.4	7.2	10.6	11.9	8.0	8.3	8.3	9.7	11.8	10.2	8.5	¹ 6.5	9.5
Real compensation per hour	2.0	0.9	-0.3	2.5	2.1	1.8	0.6	-1.4	-1.5	-0.2	2.2	1.9	¹ 0.7
Unit labor costs	0.3	1.7	13.3	8.8	3.4	5.7	7.4	9.0	11.6	7.2	9.6	¹ 4.0	¹ 7.7
Unit nonlabor payments	0.8	-3.3	-1.8	25.9	7.4	6.7	2.5	-2.6	-2.7	12.0	(¹)	(¹)	(¹)
Implicit price deflator	0.5	0.3	9.0	13.1	4.6	6.0	6.0	5.7	7.8	8.4	(¹)	(¹)	(¹)

¹ Not available.

p = preliminary.

r = revised.

30. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted

[1977 = 100]

Item	Annual average		Quarterly indexes										
			1980			1981				1982			
	1981	1982	II	III	IV	I	II	III	IV	I	II	III	IV
Business sector:													
Output per hour of all persons	100.7	101.0	98.2	98.9	99.3	100.7	100.7	101.0	100.2	100.0	100.3	101.2	102.2
Compensation per hour	144.1	154.6	130.0	133.1	136.1	140.0	142.5	145.6	148.2	150.9	153.4	155.7	¹ 157.8
Real compensation per hour	96.0	97.0	96.4	96.9	96.2	96.2	96.4	95.7	95.6	96.5	97.1	96.8	97.5
Unit labor costs	143.1	152.9	132.3	134.7	137.0	139.0	141.5	144.2	147.9	150.9	152.9	153.8	154.4
Unit nonlabor payments	135.2	138.7	116.2	120.6	124.6	131.8	133.4	137.4	138.3	136.4	137.0	140.0	141.8
Implicit price deflator	140.4	148.1	126.9	129.9	132.8	136.5	138.8	141.9	144.6	146.0	147.5	149.1	150.1
Nonfarm business sector:													
Output per hour of all persons	99.9	100.0	97.6	98.4	99.2	100.4	100.0	100.0	99.1	99.2	99.4	100.3	100.8
Compensation per hour	143.6	154.0	129.3	132.6	135.7	139.5	142.0	145.1	147.7	150.4	152.7	155.1	157.2
Real compensation per hour	96.7	96.7	96.0	96.5	95.9	96.0	96.0	96.4	96.3	96.3	96.6	96.4	97.1
Unit labor costs	143.8	154.0	132.5	134.7	136.8	139.0	141.9	145.1	149.0	151.6	153.5	154.7	156.1
Unit nonlabor payments	134.8	139.0	116.7	120.3	124.4	131.5	132.8	136.7	138.4	136.7	137.2	140.1	142.2
Implicit price deflator	140.8	149.0	127.2	129.9	132.7	136.5	138.9	142.3	145.5	146.6	148.1	149.8	151.4
Nonfinancial corporations:													
Output per hour of all employees	102.0	103.0	99.3	100.6	101.1	102.3	102.2	102.2	101.6	101.6	102.3	103.5	(¹)
Compensation per hour	143.5	154.1	129.3	132.6	135.6	139.6	141.9	144.8	147.7	150.7	153.0	155.2	(¹)
Real compensation per hour	95.6	95.8	95.9	96.6	95.8	96.0	96.0	95.2	95.3	96.5	96.8	96.4	(¹)
Total unit costs	143.4	154.2	130.4	132.9	135.8	138.3	141.7	144.7	149.1	151.8	153.8	154.8	(¹)
Unit labor costs	140.6	149.6	130.2	131.9	134.1	136.5	138.9	141.7	145.4	148.3	149.5	150.0	(¹)
Unit nonlabor costs	151.4	167.0	131.0	135.7	140.7	143.4	149.6	153.1	159.6	161.5	166.0	168.3	(¹)
Unit profits	101.6	87.2	81.9	87.8	90.5	104.7	98.8	106.2	97.6	86.1	82.3	89.6	(¹)
Implicit price deflator	138.6	146.5	124.8	127.7	130.6	134.5	136.8	140.2	143.2	144.3	145.6	147.3	(¹)
Manufacturing:													
Output per hour of all persons	104.5	103.5	100.4	100.3	103.6	105.2	105.0	105.0	102.8	102.1	102.3	104.1	104.3
Compensation per hour	146.4	158.8	130.9	135.2	138.4	142.6	144.9	147.3	150.7	154.7	157.6	160.0	161.8
Real compensation per hour	97.5	99.7	97.1	98.5	97.8	98.0	97.9	96.8	97.2	99.0	99.7	99.4	99.9
Unit labor costs	140.0	153.4	130.3	134.9	133.6	135.5	138.0	140.3	146.6	151.5	154.0	153.6	155.1

¹ Not available.

r = revised.

31. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate

[1977 = 100]

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	II 1981 to III 1981	III 1981 to IV 1981	IV 1981 to I 1982	I 1982 to II 1982	II 1982 to III 1982	III 1982 to IV 1982	III 1980 to III 1981	IV 1980 to IV 1981	I 1981 to I 1982	II 1981 to II 1982	III 1981 to III 1982	IV 1981 to IV 1982
Business sector:												
Output per hour of all persons	1.1	-2.9	-1.0	1.4	3.6	4.1	2.2	0.9	-0.7	-0.4	0.2	2.0
Compensation per hour	9.0	7.4	7.3	6.9	6.1	5.6	9.4	8.9	7.8	7.6	6.9	6.5
Real compensation per hour	-2.6	-0.4	3.9	2.2	-1.4	2.9	-1.3	-0.6	0.3	0.8	1.1	1.9
Unit labor costs	7.8	10.6	8.4	5.5	2.4	1.4	7.1	7.9	8.6	8.1	6.7	4.4
Unit nonlabor payments	12.5	2.9	-5.4	1.7	8.9	5.4	13.9	11.0	3.5	2.7	1.9	2.5
Implicit price deflator	9.3	8.0	3.8	4.3	4.4	2.7	9.2	8.9	6.9	6.3	5.1	3.8
Nonfarm business sector:												
Output per hour of all persons	-0.3	-3.5	0.6	0.8	3.5	2.0	1.6	-0.1	-1.1	-0.6	0.3	1.7
Compensation per hour	9.0	7.3	7.7	6.1	6.6	5.6	9.4	8.8	7.8	7.5	6.9	6.5
Real compensation per hour	-2.6	-0.5	4.3	1.4	-0.9	2.9	-1.2	-0.6	0.3	0.6	1.1	1.9
Unit labor costs	9.3	11.2	7.1	5.2	3.1	3.5	7.7	8.9	9.0	8.2	6.6	4.7
Unit nonlabor payments	12.1	5.1	-4.6	1.3	8.9	6.1	13.6	11.2	4.0	3.3	2.6	2.8
Implicit price deflator	10.2	9.2	3.3	4.0	4.9	4.3	9.6	9.6	7.4	6.6	5.3	4.1
Nontinancial corporations:												
Output per hour of all employees	0.2	-2.4	0.3	2.7	4.6	(1)	1.6	0.5	-0.6	0.2	1.3	(1)
Compensation per hour	8.4	8.2	8.4	6.2	5.9	(1)	9.2	8.9	8.0	7.8	7.2	(1)
Real compensation per hour	-3.1	0.3	5.0	1.6	-1.6	(1)	-1.4	-0.5	0.5	0.9	1.3	(1)
Total unit costs	8.6	12.8	7.4	5.4	2.5	(1)	8.9	9.8	9.7	8.5	7.0	(1)
Unit labor costs	8.2	10.9	8.1	3.4	1.2	(1)	7.5	8.4	8.6	7.6	5.8	(1)
Unit nonlabor costs	9.8	17.8	5.7	10.7	5.9	(1)	12.9	13.4	12.8	10.9	9.9	(1)
Unit profits	28.4	-25.9	-39.4	-16.7	40.8	(1)	19.7	7.9	-17.8	-16.7	-14.8	(1)
Implicit price deflator	10.2	8.9	3.0	3.8	4.7	(1)	9.7	9.6	7.3	6.4	5.1	(1)
Manufacturing:												
Output per hour of all persons	-0.1	-8.2	-2.4	0.8	7.3	015	4.7	-0.8	-2.9	-2.5	-0.8	1.5
Compensation per hour	6.8	9.6	11.1	7.8	6.2	415	8.9	8.9	8.5	8.8	8.7	7.4
Real compensation per hour	-4.6	1.6	7.6	3.1	-1.3	119	-1.7	-0.6	1.0	1.8	2.7	2.8
Unit labor costs	6.8	19.4	13.9	6.9	-1.0	319	4.0	9.8	11.7	11.6	9.5	5.8

¹ Not available.

r = revised.

Editor's note

Because of production difficulties, tables 28-31 repeat data from the May issue. The tables will be updated in the August issue.

WAGE AND COMPENSATION DATA

DATA FOR THE EMPLOYMENT COST INDEX are reported to the Bureau of Labor Statistics by a sample of 2,000 private nonfarm establishments and 750 State and local government units selected to represent total employment in those sectors. On average, each reporting unit provides wage and compensation information on five well-specified occupations.

Data on negotiated wage and benefit changes are obtained from contracts on file at the Bureau, direct contact with the parties, and secondary sources.

Definitions

The **Employment Cost Index (ECI)** is a quarterly measure of the average change in the cost of employing labor. The rate of total compensation, which comprises wages, salaries, and employer costs for employee benefits, is collected for workers performing specified tasks. Employment in each occupation is held constant over time for all series produced in the ECI, except those by region, bargaining status, and area. As a consequence, only changes in compensation are measured. Industry and occupational employment data from the 1970 Census of Population are used in deriving constant weights for the ECI. While holding total industry and occupational employment fixed, in the estimation of indexes by region, bargaining status, and area, the employment in those measures is allowed to vary over time in accord with changes in the sample. The rate of change (in percent) is available for wages and salaries, as well as for total compensation. Data are collected for the pay period including the 12th day of the survey months of March, June, September, and December. The statistics are neither annualized nor adjusted for seasonal influence.

Wages and salaries consist of earnings before payroll deductions, excluding premium pay for overtime, work on weekends and holidays, and shift differentials. Production bonuses, incentive earnings, commissions, and cost-of-living adjustments are included; nonproduction bonuses are included with other supplemental pay items in the benefits category; and payments-in-kind, free room and board, and tips are excluded. *Benefits* include supplemental pay, insurance, retirement and savings plans, and hours-related and legally required benefits.

Data on negotiated wage changes apply to private nonfarm industry collective bargaining agreements covering 1,000 workers or more. Data on compensation changes apply only to those agreements covering 5,000 workers or more. *First-year* wage or compensation changes refer to average negotiated changes for workers covered by settlements reached in the period

and implemented within the first 12 months after the effective date of the agreement. *Changes over the life of the agreement* refer to all adjustments specified in the contract, expressed as an average annual rate. These measures exclude wage changes that may occur under cost-of-living adjustment clauses, that are triggered by movements in the Consumer Price Index. *Wage-rate changes* are expressed as a percent of straight-time hourly earnings; *compensation changes* are expressed as a percent of total wages and benefits.

Effective wage adjustments reflect all negotiated changes implemented in the reference period, regardless of the settlement date. They include changes from settlements reached during the period, changes deferred from contracts negotiated in an earlier period, and cost-of-living adjustments. The data also reflect contracts providing for no wage adjustment in the period. Effective adjustments and each of their components are prorated over all workers in bargaining units with at least 1,000 workers.

Notes on the data

The Employment Cost Index data series began in the fourth quarter of 1975, with the quarterly percent change in wages and salaries in the private nonfarm sector. Data on employer costs for employee benefits were included in 1980, to produce a measure of the percent change in employers' cost for employees' total compensation. State and local government units were added to the ECI coverage in 1981, providing a measure of total compensation change in the civilian nonfarm economy.

Data for the broad white-collar, blue-collar, and service worker groups, and the manufacturing, nonmanufacturing, and service industry groups are presented in the ECI. Additional occupation and industry detail are provided for the wages and salaries component of total compensation in the private nonfarm sector. For State and local government units, additional industry detail is shown for both total compensation and its wages and salaries component.

Historical indexes (June 1981 = 100) of the quarterly rates of changes presented in the ECI are also available.

For a more detailed discussion of the ECI, see chapter 11, "The Employment Cost Index," of the BLS *Handbook of Methods* (Bulletin 2134-1), and the *Monthly Labor Review* articles: "Employment Cost Index: a measure of change in the 'price of labor,'" July 1975; "How benefits will be incorporated into the Employment Cost Index," January 1978; and "The Employment Cost Index: recent trends and expansion," May 1982.

Additional data for the ECI and other measures of wage and compensation changes appear in *Current Wage Developments*, a monthly publication of the Bureau.

32. Employment Cost Index, by occupation and industry group

[June 1981 = 100]

Series	1981				1982				1983	Percent change	
	March	June	Sept.	Dec.	March	June	Sept.	Dec.		March	3 months ended	12 months ended
									March 1983		
Civilian workers¹	—	100.0	102.6	104.5	106.3	107.5	110.1	111.4	113.2	1.6	6.5
Workers, by occupational group											
White-collar workers	—	100.0	102.7	104.9	106.5	107.7	110.7	111.9	113.7	1.6	6.8
Blue-collar workers	—	100.0	102.3	104.1	105.7	107.1	109.2	110.5	112.3	1.6	6.2
Service workers	—	100.0	102.8	104.2	107.2	108.3	110.8	112.4	114.3	1.7	6.6
Workers, by industry division											
Manufacturing	—	100.0	102.1	104.0	106.0	107.2	109.3	110.4	112.5	1.9	6.1
Nonmanufacturing	—	100.0	102.8	104.8	106.4	107.7	110.5	111.8	113.5	1.5	6.7
Services	—	100.0	104.4	107.1	108.2	109.2	113.5	115.0	116.6	1.4	7.8
Public administration ²	—	100.0	104.3	106.0	108.1	109.1	112.8	113.6	116.2	2.3	7.5
Private industry workers	98.1	100.0	102.0	104.0	105.8	107.2	109.3	110.7	112.6	1.7	6.4
Workers, by occupational group											
White-collar workers	98.3	100.0	101.8	104.0	105.8	107.2	109.5	110.8	112.8	1.8	6.6
Blue-collar workers	97.8	100.0	102.2	104.0	105.6	107.0	109.0	110.3	112.1	1.6	6.2
Service workers	99.3	100.0	101.9	103.1	106.7	107.9	109.6	111.8	113.8	1.8	6.7
Workers, by industry division											
Manufacturing	98.0	100.0	102.1	104.0	106.0	107.2	109.3	110.4	112.5	1.9	6.1
Nonmanufacturing	98.2	100.0	102.0	103.9	105.7	107.1	109.3	110.8	112.6	1.6	6.5
State and local government workers	—	100.0	106.3	107.4	108.8	109.3	114.3	115.1	116.5	1.2	7.1
Workers, by occupational group											
White-collar workers	—	100.0	106.7	107.8	109.1	109.5	114.9	115.8	117.0	1.0	7.2
Blue-collar workers	—	100.0	104.2	105.9	108.2	108.9	112.7	113.0	114.9	1.7	6.2
Workers, by industry division											
Services	—	100.0	105.8	107.9	109.0	109.4	114.9	115.9	116.8	.8	7.2
Schools	—	100.0	106.0	107.9	108.9	109.1	114.8	115.8	116.6	.7	7.1
Elementary and secondary	—	100.0	106.3	108.3	109.3	109.5	115.6	116.6	117.2	.5	7.2
Hospitals and other services ³	—	100.0	105.0	107.8	109.5	110.3	115.3	116.0	117.5	1.3	7.3
Public administration ²	—	100.0	104.3	106.0	108.1	109.1	112.5	113.6	116.2	2.3	7.5

¹Excludes farm, household, and Federal workers.

²Consists of legislative, judicial, administrative, and regulatory activities.

³Includes, for example, library, social, and health services.

NOTE: Dashes indicate data not available.

33. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1981 = 100]

Series	1981				1982				1983	Percent change	
	March	June	Sept.	Dec.	March	June	Sept.	Dec.		3 months ended	12 months ended
									March 1983		
Civilian workers¹	—	100.0	102.5	104.4	106.3	107.3	109.7	110.9	112.2	1.2	5.6
Workers, by occupational group											
White-collar workers	—	100.0	102.6	104.7	106.7	107.6	110.4	111.4	113.0	1.4	5.9
Blue-collar workers	—	100.0	102.4	104.0	106.5	106.7	108.6	109.8	110.8	.9	5.0
Service workers	—	100.0	102.5	103.6	106.8	107.9	110.1	111.8	113.2	1.3	6.0
Workers, by industry division											
Manufacturing	—	100.0	102.1	104.0	105.9	107.0	108.8	109.8	111.0	1.1	4.8
Nonmanufacturing	—	100.0	102.7	104.5	106.5	107.5	110.1	111.3	112.7	1.3	5.8
Services	—	100.0	104.4	106.6	108.6	109.5	113.2	114.4	115.8	1.2	6.6
Public administration ²	—	100.0	103.8	106.5	107.5	108.4	111.9	112.6	114.6	1.8	6.6
Private industry workers	98.0	100.0	102.0	103.8	105.9	107.1	109.0	110.3	111.6	1.2	5.4
Workers, by occupational group											
White-collar workers	98.1	100.0	101.8	103.9	106.2	107.3	109.4	110.6	112.2	1.4	5.6
Professional and technical workers	98.2	100.0	103.3	105.5	108.0	109.4	111.8	112.9	114.8	1.7	6.3
Managers and administrators	98.6	100.0	101.6	102.8	105.8	107.2	108.5	109.3	112.0	2.5	5.9
Salesworkers	96.2	100.0	98.0	101.9	102.2	101.8	104.5	106.2	105.7	-.5	3.4
Clerical workers	98.6	100.0	102.7	104.2	107.0	108.3	110.3	111.6	113.4	1.6	6.0
Blue-collar workers	97.7	100.0	102.3	103.9	105.4	106.6	108.5	109.7	110.7	.9	5.0
Craft and kindred workers	97.8	100.0	102.9	104.3	106.2	107.6	109.6	111.2	112.2	.9	5.6
Operatives, except transport	97.8	100.0	102.1	104.1	105.4	106.6	108.3	109.3	110.0	.6	4.4
Transport equipment operatives	96.8	100.0	101.0	102.7	103.2	104.1	106.0	106.9	108.0	1.0	4.7
Nonfarm laborers	97.5	100.0	101.5	103.3	104.1	105.1	106.5	107.8	109.0	1.1	4.7
Service workers	99.2	100.0	101.8	102.7	106.7	107.9	109.3	111.4	112.9	1.3	5.8
Workers, by industry division											
Manufacturing	97.9	100.0	102.1	104.0	105.9	107.0	108.8	109.8	111.0	1.1	4.8
Durables	97.9	100.0	102.1	104.5	106.3	107.4	109.0	110.3	111.1	.7	4.5
Nondurables	97.8	100.0	102.0	103.1	105.3	106.3	108.5	109.1	110.9	1.6	5.3
Nonmanufacturing	98.1	100.0	102.0	103.8	105.9	107.1	109.1	110.5	112.0	1.4	5.8
Construction	97.6	100.0	103.0	104.3	105.9	107.3	109.1	109.7	110.4	.6	4.2
Transportation and public utilities	97.7	100.0	102.0	103.6	105.7	106.9	109.5	111.1	112.9	1.6	6.8
Wholesale and retail trade	98.2	100.0	101.3	102.3	103.9	105.8	106.5	107.2	108.5	1.2	4.4
Wholesale trade	98.5	100.0	102.0	103.4	106.3	108.9	109.0	109.8	111.8	1.8	5.2
Retail trade	98.1	100.0	101.0	101.9	103.0	104.5	106.5	106.1	107.2	1.0	4.1
Finance, insurance, and real estate	95.7	100.0	98.3	102.3	103.7	102.4	106.1	109.0	110.6	1.5	6.7
Services	99.6	100.0	103.6	105.8	108.8	110.0	112.5	114.3	116.0	1.5	6.6
State and local government workers	—	100.0	105.0	107.0	108.2	108.7	113.5	114.0	115.1	1.0	6.4
Workers, by occupational group											
White-collar workers	—	100.0	105.4	107.5	108.5	108.9	114.2	114.6	115.6	.9	6.5
Blue-collar workers	—	100.0	103.9	105.5	107.5	107.9	111.5	112.0	113.3	1.2	5.4
Workers, by industry division											
Services	—	100.0	105.5	107.6	108.4	108.8	114.2	114.6	115.5	.8	6.5
Schools	—	100.0	105.7	107.7	108.3	108.5	114.2	114.5	115.2	.6	6.4
Elementary and secondary	—	100.0	106.0	107.9	108.7	108.8	114.9	115.1	115.6	.4	6.3
Hospitals and other services ³	—	100.0	104.6	107.3	108.8	109.5	114.3	114.9	116.5	1.4	7.1
Public administration ²	—	100.0	103.8	105.5	107.5	108.4	111.9	112.6	114.6	1.8	6.6

¹Excludes farm, household, and Federal workers.

²Consists of legislative, judicial, administrative, and regulatory activities.

³Includes, for example, library, social and health services.

NOTE: Dashes indicate data not available.

34. Employment Cost Index, private industry workers, by bargaining status, region, and area size

[June 1981 = 100]

Series	1981				1982				1983	Percent change	
	March	June	Sept.	Dec.	March	June	Sept.	Dec.	March	3 months ended	12 months ended
										March 1983	March 1983
COMPENSATION											
Workers, by bargaining status ¹											
Union	97.6	100.0	102.5	104.8	106.5	108.4	110.6	112.3	114.5	2.0	7.5
Manufacturing	—	100.0	102.3	104.6	106.3	108.0	110.3	111.8	114.0	2.0	7.2
Nonmanufacturing	—	100.0	102.7	105.0	106.8	108.7	111.0	112.8	114.9	1.9	7.6
Nonunion	98.4	100.0	101.7	103.5	105.3	106.5	108.5	109.7	111.5	1.6	5.9
Manufacturing	—	100.0	101.8	103.5	105.7	106.6	106.4	109.2	111.2	1.8	5.2
Nonmanufacturing	—	100.0	101.7	103.5	106.2	106.4	108.6	109.9	111.6	1.5	6.1
Workers, by area size ¹											
Metropolitan areas	98.1	100.0	102.1	104.1	105.7	107.2	109.4	110.9	112.9	1.8	6.8
Other areas	98.1	100.0	101.8	103.2	106.2	107.0	108.6	109.1	110.8	1.6	4.3
WAGES AND SALARIES											
Workers, by bargaining status ¹											
Union	97.4	100.0	102.7	105.0	106.5	108.1	110.3	111.8	112.9	1.0	6.0
Manufacturing	97.7	100.0	102.6	104.7	105.9	107.3	109.5	110.8	111.4	.5	5.2
Nonmanufacturing	97.1	100.0	102.8	105.2	107.0	108.8	111.1	112.7	114.3	1.4	6.8
Nonunion	98.2	100.0	101.6	103.2	105.6	106.5	108.3	109.5	110.9	1.3	5.0
Manufacturing	97.9	100.0	101.7	103.3	105.9	106.7	108.2	109.1	110.7	1.5	4.5
Nonmanufacturing	98.3	100.0	101.6	103.2	105.5	106.4	108.3	109.6	111.0	1.3	5.2
Workers, by region ¹											
Northeast	98.3	100.0	101.7	104.4	106.1	106.7	109.7	111.5	112.0	.4	5.6
South	98.0	100.0	101.9	102.8	105.7	107.4	108.8	109.8	111.4	1.5	5.4
North Central	98.1	100.0	101.6	103.3	104.7	106.1	107.6	108.6	110.1	1.4	5.2
West	97.9	100.0	103.2	105.1	107.9	108.6	110.7	112.0	114.1	1.9	5.7
Workers by area size ¹											
Metropolitan areas	97.9	100.0	102.1	104.0	105.9	107.1	109.1	110.5	111.9	1.3	5.7
Other areas	98.3	100.0	101.8	103.1	106.0	106.8	108.3	108.8	110.1	1.2	3.9

¹The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see BLS *Handbook of Methods*, Bulletin 1910.

35. Wage and compensation change, major collective bargaining settlements, 1978 to date

[In percent]

Measure	Annual average					Quarterly average							
	1978	1979	1980	1981	1982	1981			1982				1983 ^P
						II	III	IV	I	II	III	IV	
Total compensation changes, covering 5,000 workers or more, all industries:													
First year of contract	8.3	9.0	10.4	10.2	3.2	11.6	10.5	11.0	1.9	2.6	6.2	3.3	-1.8
Annual rate over life of contract	6.3	6.6	7.1	8.3	2.8	10.8	8.1	5.8	1.2	2.1	4.7	4.8	1.4
Wage rate changes covering at least 1,000 workers, all industries:													
First year of contract	7.6	7.4	9.5	9.8	3.8	11.8	10.8	9.0	3.0	3.4	5.4	3.8	-1.4
Annual rate over life of contract	6.4	6.0	7.1	7.9	3.6	9.7	8.7	5.7	2.8	3.2	4.5	4.8	2.2
Manufacturing:													
First year of contract	8.3	6.9	7.4	7.2	2.8	8.2	9.0	6.6	2.5	1.8	5.1	4.1	-3.5
Annual rate over life of contract	6.6	5.4	5.4	6.1	2.6	6.7	7.5	5.4	2.7	1.7	3.9	4.5	.8
Nonmanufacturing (excluding construction):													
First year of contract	8.0	7.6	9.5	9.8	4.3	11.8	8.6	9.6	2.7	6.6	5.5	3.6	3.8
Annual rate over life of contract	6.5	6.2	6.6	7.3	4.1	9.1	7.2	5.6	2.1	6.1	4.8	5.2	5.9
Construction:													
First year of contract	6.5	8.8	13.6	13.5	6.5	12.9	16.4	11.4	8.6	6.2	6.3	3.4	-.2
Annual rate over life of contract	6.2	8.3	11.5	11.3	6.3	11.1	12.4	11.7	8.2	6.3	5.9	2.9	2.6

p = preliminary.

36. Effective wage adjustments in collective bargaining units covering 1,000 workers or more, 1978 to date

Measure	Year					Year and quarter								
	1978	1979	1980	1981	1982	1981			1982				1983 ^P	
						II	III	IV	I	II	III	IV		
Average percent adjustment (including no change):														
All industries	8.2	9.1	9.9	9.5	6.8	3.2	3.3	1.5	1.0	2.0	2.4	1.3	0.3	
Manufacturing	8.6	9.6	10.2	9.4	5.2	2.4	3.1	1.9	.9	1.0	1.7	1.5	-.4	
Nonmanufacturing	7.9	8.8	9.7	9.5	7.9	3.8	3.4	1.1	1.1	2.7	2.9	1.2	.8	
From settlements reached in period	2.0	3.0	3.6	2.5	1.7	1.1	.5	.4	.2	.4	.5	.6	-.2	
Deferred from settlements reached in earlier period	3.7	3.0	3.5	3.8	3.6	1.4	1.5	.4	.6	1.4	1.3	.4	.4	
From cost-of-living clauses	2.4	3.1	2.8	3.2	1.4	.7	1.2	.6	.3	.2	.6	.3	.1	
Total number of workers receiving wage change (in thousands) ¹														
From settlements reached in period	—	—	—	2,270	1,907	909	540	604	204	511	620	825	412	
Deferred from settlements reached in earlier period	—	—	—	6,267	4,846	2,055	3,023	882	1,001	1,594	2,400	860	819	
From cost-of-living clauses	—	—	—	4,593	3,830	2,669	2,934	2,179	1,920	1,568	2,251	1,970	2,005	
Number of workers receiving no adjustments (in thousands)	—	—	—	145	483	4,092	4,428	5,568	5,457	4,912	4,575	4,895	5,364	

¹The total number of workers who received adjustments does not equal the sum of workers that received each type of adjustment, because some workers received more than one type of adjustment during the period

p = preliminary.

WORK STOPPAGE DATA

Estimates of days idle as a percent of estimated working time measures only the impact of larger strikes (1,000 workers or more). Formerly, these estimates measured the impact of strikes involving 6 workers or more; that is, the impact of virtually *all* strikes. Due to budget stringencies, collection of data on strikes involving 6 workers or more was discontinued with the December 1981 data. WORK STOPPAGES include all known strikes or lockouts involving

1,000 workers or more and lasting a full shift or longer. Data are based largely on newspaper accounts and 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.

37. Work stoppages involving 1,000 workers or more, 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 (in thousands)	In effect during month (in thousands)	Number (in thousands)	Percent of estimated working time
1947	270		1,629		25,720	
1948	245		1,435		26,127	.22
1949	262		2,537		43,420	.38
1950	424		1,698		30,390	.26
1951	415		1,462		15,070	.12
1952	470		2,746		48,820	.38
1953	437		1,623		18,130	.14
1954	265		1,075		16,630	.13
1955	363		2,055		21,180	.16
1956	287		1,370		26,840	.20
1957	279		887		10,340	.07
1958	332		1,587		17,900	.13
1959	245		1,381		60,850	.43
1960	222		896		13,260	.09
1961	195		1,031		10,140	.07
1962	211		793		11,760	.08
1963	181		512		10,020	.07
1964	246		1,183		16,220	.11
1965	268		999		15,140	.10
1966	321		1,300		16,000	.10
1967	381		2,192		31,320	.18
1968	392		1,855		35,567	.20
1969	412		1,576		29,397	.16
1970	381		2,468		52,761	.29
1971	298		2,516		35,538	.19
1972	250		975		16,764	.09
1973	317		1,400		16,260	.08
1974	424		1,796		31,809	.16
1975	235		965		17,563	.09
1976	231		1,519		23,962	.12
1977	298		1,212		21,258	.10
1978	219		1,006		23,774	.11
1979	235		1,021		20,409	.09
1980	187		795		20,844	.09
1981	145		729		16,908	.07
1982	96		656		9,061	.04
1982	January	2	6.1	11.4	202.8	.01
	February	3	3.9	15.3	241.1	.01
	March	4	13.3	26.1	357.0	.02
	April	14	59.5	79.1	533.1	.03
	May	15	42.7	66.1	657.6	.04
1983 ^P	January	1	1.6	38.0	794.8	.04
	February	5	14.0	50.4	844.4	.05
	March	4	9.0	53.4	1,270.0	.05
	April	2	2.8	52.4	789.5	.04
	May	7	17.6	26.9	437.2	.02

p = preliminary.

Published by BLS in May

SALES PUBLICATIONS

Area Wage Survey Bulletins

These bulletins cover office, professional, technical, maintenance, custodial, and material movement occupations in major metropolitan areas. The annual series of 70 is available by subscription for \$115 per year. Individual area bulletins are also available separately. Published in May:

Davenport-Rock Island-Moline, Iowa-Illinois, Metropolitan Area, February 1983. Bulletin 3020-5, 42 pp., \$4.50 (GPO Stock No. 029-001-90198-4).

Periodicals

CPI Detailed Report. March issue provides a comprehensive report on movements of the CPI-U and CPI-W for the month; an explanation of changes in the measurement of homeownership costs; a list of title and definition changes in the CPI-U, January 1983; relative importance, CPI-U and CPI-U (old series), December 1982; statistical tables, charts, and technical notes. 103 pp., \$5 (\$28 per year).

Current Wage Developments. April issue includes collective bargaining activity in 1982, selected wage and benefit changes, major agreements expiring in May, and statistics on work stoppages and compensation changes. 74 pp., \$4.50 (\$23 per year).

Employment and Earnings. May issue covers employment and unemployment developments in April, annual averages for States and areas, plus regular statistical tables on national, State, and area employment, unemployment, hours, and earnings. 167 pp., \$6 (\$39 per year).

Occupational Outlook Quarterly. Spring issue features articles on employment trends in the building trades; computer programmers; glassblowing; careers in associations; characteristics of job entrants in 1980-81; a fresh look at job openings; and moonlighting. 36 pp., \$4.50 (\$9 per year).

Producer Prices and Price Indexes. March issue includes a comprehensive report on price movements for the month, plus regular tables and technical notes. 123 pp. \$5 (\$34 per year).

U.S. Department of State Indexes of Living Costs Abroad, Quarters Allowances, and Hardship Differentials. Tabulations computed quarterly by the Allowances Staff of the Department of State for use in establishing allowances to compensate American civilian government employees for costs and hardships related to assignments abroad. The information is also used by many business firms and private organizations to assist in establishing private compensation systems. 8 pp., \$1.75 (\$6.50 per year).

FREE PUBLICATIONS

BLS Reports

Evaluating Your Firm's Injury and Illness Record, 1981: Wholesale and Retail Trade Industries, Report 681, 13 pp. This report provides a means of comparing a firm's safety record with the record of other firms of similar size and with the industry as a whole. Presented are tabulations of occupational injury and illness incidence rates for the industry by employment size and quartile distribution.

BLS Summaries

Occupational Earnings and Wage Trends in Metropolitan Areas, 1982. Summary 83-1 (No. 3 of 3), 10 pp.

OTHER DATA SERVICES

Mailgram

Consumer price index data summary by mailgram within 24 hours of the CPI release. Provides unadjusted and seasonally adjusted U.S. City Average data for All Urban Consumers (CPI-U) and for Urban Wage Earners and Clerical Workers (CPI-W). (NTISUB/158). \$125 in contiguous United States.

Magnetic Tapes

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