

Employment and unemployment improvements widespread in 1983

During a full year of economic recovery, total employment increased by 4.0 million and the unemployment rate dropped by 2.5 percentage points to 8.2 percent

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The end of 1983 marked a year of recovery from one of the longest and deepest post-World War II recessions. Improvement in the employment situation compared favorably with previous recovery periods. Spurred primarily by a surge in consumer spending, particularly on durable goods such as housing, appliances, and automobiles, real gross national product picked up sharply in the spring and summer months. Overall, real GNP grew by about 6 percent over the year (fourth quarter 1982 to fourth quarter 1983), compared with a decline in the prior year.

Industrial production, which had fallen by just over 12 percent during the 1981–82 recession, increased steadily throughout the year. By yearend, the index had risen by more than 15 percent, with the biggest increases occurring among durable goods manufacturers.

Concomitant with the improvements in production and spending came sharp gains in employment and reductions in unemployment. While comparatively stagnant in the first quarter of 1983, total civilian employment grew rapidly during the remaining quarters and posted an overall increase of 3.9 million between the 1981–82 recession trough of November 1982 and December 1983. Nonfarm payroll employment increased by 2.9 million over the same period.¹

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While not all industries fared equally well, increases in payroll jobs were widespread. For example, 70 percent of the 186 industries which make up the BLS diffusion index registered gains in the fourth quarter of 1983, compared to just 25 percent a year earlier (3-month spans).²

The number of jobless persons fell by 2.7 million between November 1982 and December 1983, while the civilian unemployment rate dropped by 2.5 percentage points to 8.2 percent. The unemployment rate including the resident Armed Forces in the labor force base was 8.1 percent in December 1983, also down 2.5 percentage points from its recessionary high.

This article provides a detailed look at the Nation's labor market situation as it evolved during 1983. It gives a brief overview of the recovery compared with previous post-World War II recoveries, and discusses employment and unemployment developments during 1983.

A year of recovery

One way to compare economic recoveries is to examine key indicators—gross national product, production, and employment—to see if the changes in each series are similar over a given period.³ There are a number of limitations to this approach, particularly in the absence of a fairly well-grounded economic model of, for example, a firm's hiring and production decisions and their links to the macroeconomy. One would expect that the speed and diffusion of a recovery would be related, in part, to the depth and duration of the prior recession. In addition, the existence

of noncyclical changes may easily impair the ability to evaluate the relative strength of any given cyclical recovery. Subject to these limitations, table 1 provides a few important measures—various indexes of changes in employment, production, and other measures of economic activity.

In the context of this comparative approach, attention might be appropriately focused on the recoveries beginning in 1958 and 1975 because the depth of their prior recessions was most similar. For example, during the 1981–82 recession, production fell 12.3 percent and nonfarm payroll employment declined 3.1 percent. During the 1957–58 recession, the declines were 12.4 and 4.0 percent, and during the 1973–75 recession, 15.1 and 1.8 percent.

Over the first 13 months of the 1982–83 recovery, employment exhibited increases not far out of line with the recoveries since 1961. The 5.8-percent gain in manufacturing employment is greater than for all the recoveries shown except 1949 and 1958. But total nonfarm payroll employment, with a gain of 3.2 percent, falls short of the pre-1960 and 1975 increases. For example, in the first 13 months of the 1958–59 recovery period, nonfarm payroll jobs increased by 5.1 percent, while in the 1975–76 period, the increase was 3.5 percent. In terms of the other economic indicators in table 1, retail sales in 1983 have not yet shown gains commensurate with most other recoveries, and the increase in industrial production has fallen short of the 1958–59 recovery.

How much of the 1981–82 recession’s job loss has been

“restored” compared to other periods of expansion? The following tabulation shows nonfarm and manufacturing payroll employment increases (in thousands) over the first 13 months of recovery as a percent of the job loss during each prior recession (the 1980–81 recovery only lasted 12 months):

Recovery	Total nonfarm	Manufacturing
Oct. 1949–Nov. 1950	169.5	132.0
May 1954–June 1955	120.9	45.0
Apr. 1958–May 1959	121.8	77.0
Feb. 1961–Mar. 1962	146.1	74.0
Nov. 1970–Dec. 1971	200.4	10.0
Mar. 1975–Apr. 1976	188.7	35.7
July 1980–July 1981	154.9	45.9
Nov. 1982–Dec. 1983	105.9	49.1

Consider the manufacturing sector. Throughout the first 13 months of recovery from the four recessions since 1970, the proportions of jobs recovered tended to be less than in the early postwar recovery periods, undoubtedly reflecting a number of noncyclical changes in the structure of production and employment.

For example, 49 percent of the overall manufacturing jobs lost during the 1981–82 recession had been regained, compared with more than 75 percent during the 1958–59 recovery. Since the 1973–75 recession, the percentages have been more similar. To put this in another perspective, factory job losses accounted for 79 percent, 152 percent, and 67 percent of total nonfarm job declines over the course of the 1981–82, 1973–75, and 1957–58 recessions, respectively. As a proportion of nonfarm payroll job gains 13 months after each recession trough, manufacturing jobs accounted for 37 percent, 29 percent, and 42 percent, respectively. Also by the thirteenth month of every previous recovery, total nonfarm jobs had already recovered substantially more than the recession job loss. By this measure, recovery during the 1983 expansion has been less robust. One should bear in mind that these data on restored jobs are not able to isolate cyclical from secular and other micro- and macro-economic changes.

Employment growth strong

The payroll jobs picture brightened considerably throughout 1983. After declining by 2.7 million over the course of the recession and exhibiting essentially no growth in the first few months of 1983, payroll employment increased rapidly through the end of the year. Between the November 1982 National Bureau of Economic Research (NBER) designated trough and December 1983, payroll jobs increased by 2.9 million.⁴ These developments are traced on a quarterly basis in table 2.

Employment gains were widespread, although not necessarily proportionate to the size of the industry or to the magnitude of recession-induced employment cutbacks. The BLS Diffusion Index of over-the-month employment gains

Table 1. Changes in selected economic indicators from postwar business cycle troughs through the first 13 months of recovery, seasonally adjusted

(In percent)

Recovery periods	Civilian employment	Nonfarm payroll employment	Manufacturing payroll employment	Real gross national product ¹	Index of industrial production	Private housing starts ²	Retail sales ³
October 1949 to November 1950	4.2	8.9	14.7	13.3	27.5	-6.1	2.6
May 1954 to June 1955	3.1	3.8	4.1	7.4	14.0	20.7	10.3
April 1958 to May 1959	3.3	5.1	7.0	8.4	22.7	29.8	10.0
February 1961 to March 1962	1.4	3.3	4.5	7.0	14.0	17.7	6.9
November 1970 to December 1971	2.3	2.2	.9	4.7	7.2	39.3	11.4
March 1975 to April 1976	3.8	3.5	4.3	6.7	15.6	40.5	10.5
July 1980 to July 1981 ⁴	1.9	2.0	2.9	4.2	9.7	-18.4	1.8
November 1982 to December 1983 ⁵	3.9	3.2	5.8	6.1	15.9	29.0	8.0

¹Measured in 1972 dollars at an annual rate. This series is estimated on a quarterly basis so that the calculations are based on the quarter within which each recovery date fell.

²Measured as an annual rate of housing starts.

³Measured in 1972 dollars.

⁴The National Bureau of Economic Research designated July 1981 as the prerecession peak; thus, the recovery from the 1980 recession did not last 13 months.

⁵The changes in private housing starts and retail sales refer to the November 1982–November 1983 period.

among 186 industries increased from a 32-percent low in November 1982 to 71 percent in May 1983; in the remaining months of the year, the index was between 60 and 70 percent. The goods-producing sector, which had about 96 percent of the 1981–82 job declines, accounted for only 46 percent of the increases posted since November 1982.

Service-producing industries. Employment in the service-producing sector advanced by 1.6 million between November 1982 and December 1983. These gains were dominated by the services industry, which has such diverse industries as business, educational, personal, and legal services, motels, amusement and recreation, and auto repair. The services industry gained 935,000 jobs. In contrast, government employment, particularly at the State and local level, showed no growth, reflecting, in large part, stringent budgets and consequent staffing limitations. State and local government employment had declined by 206,000 during the recession.

Wholesale and retail trade employment remained relatively stagnant in early 1983 but began to increase in the early summer, spurred by the surge in consumer spending. Over the year, jobs in retail trade increased by 361,000, while wholesale trade edged up by about 113,000. The cyclical transportation and public utilities industry registered essentially no growth during 1983; employment in this industry had declined by 165,000 during the recession.

Goods-producing industries. From a purely cyclical perspective, the goods-producing sector shows the most movement. Employment in this sector, which declined 2.6 million over the NBER-dated recession period, did not bottom out until March 1983. By December, the number employed was 24.4 million, an increase of 1.4 million from March, with the biggest job gains in construction and durable goods manufacturing.

Construction employment continued to decline through the early part of 1983, but began to increase in the spring. Depressed since 1979, the housing industry—and, hence, residential construction—was one of the star performers of the economy in 1983, particularly during the spring and summer. New housing starts, which had hovered around 900,000 units (at an annual rate) during the first half of 1982, began to edge up slowly toward the end of 1982. They took off in 1983, hitting a peak of 1.9 million units annually in August. However, during the summer, mortgage interest rates began to inch upward again and were instrumental in slowing single-family home sales and construction. As a result, housing starts tailed off to an annual rate of 1.7 million units toward yearend, but were still substantially above the levels of the previous 2 years. By the end of 1983, construction industry employment was 350,000 above its March trough.

Jobs in manufacturing, which had accounted for nearly 80 percent of the decline in total nonfarm jobs in the recession, increased steadily throughout the year. Between No-

Table 2. Employees on nonagricultural payrolls by industry, seasonally adjusted quarterly averages, 1981–83

(In thousands)

Industry	1981	1982	1983			
	III	IV	I	II	III	IV ¹
Total	91,440	88,796	88,815	89,452	90,250	91,381
Total private	75,492	73,026	73,075	73,726	74,512	75,596
Goods-producing	25,653	23,160	23,088	23,341	23,830	24,308
Mining	1,193	1,067	1,019	998	1,022	1,047
Construction	4,162	3,835	3,817	3,860	4,009	4,089
Manufacturing, total	20,298	18,258	18,252	18,484	18,799	19,172
Production workers	14,121	12,287	12,306	12,527	12,806	13,141
Durable goods	12,196	10,607	10,606	10,774	11,021	11,318
Lumber and wood products	667	609	631	664	697	713
Furniture and fixtures	470	427	430	445	458	469
Stone, clay, and glass products	639	559	558	569	581	592
Primary metal industries	1,133	826	814	826	843	875
Fabricated metal products	1,603	1,366	1,363	1,377	1,404	1,439
Machinery, except electrical	2,522	2,092	2,040	2,054	2,106	2,153
Electric and electronic equipment	2,111	1,969	1,981	2,013	2,057	2,127
Transportation equipment	1,906	1,683	1,721	1,754	1,801	1,859
Instruments and related products	736	700	693	689	692	702
Miscellaneous manufacturing	410	375	375	382	383	390
Nondurable goods	8,102	7,651	7,646	7,710	7,778	7,854
Food and kindred products	1,662	1,631	1,622	1,636	1,632	1,634
Tobacco manufactures	71	66	68	66	63	61
Textile mill products	830	729	727	738	750	760
Apparel and other textile products	1,257	1,143	1,147	1,154	1,177	1,201
Paper and allied products	693	653	652	656	660	666
Printing and publishing	1,273	1,264	1,266	1,277	1,288	1,300
Chemicals and allied products	1,111	1,063	1,056	1,057	1,058	1,061
Petroleum and coal products	215	200	199	198	196	193
Rubber and miscellaneous plastic products	748	686	693	715	738	761
Leather and leather products	243	215	215	214	216	217
Private service-producing	65,787	65,636	65,727	66,110	66,421	67,073
Transportation and public utilities	5,184	5,020	4,969	4,991	4,785	5,023
Wholesale trade	5,376	5,214	5,181	5,200	5,251	5,293
Retail trade	15,262	15,093	15,169	15,193	15,323	15,408
Finance, insurance, and real estate	5,317	5,358	5,383	5,436	5,484	5,521
Services	18,700	19,182	19,285	19,564	19,839	20,043
Government	15,948	15,770	15,740	15,726	15,738	15,785
Federal	2,771	2,745	2,744	2,745	2,754	2,769
State and local	13,177	13,025	12,996	12,981	12,984	13,016

¹Data are preliminary.

vember 1982 and December 1983, manufacturing employment increased by 1,050,000. However, this gain represented only 49 percent of the jobs lost during the recession. Of note is the fact that production workers accounted for virtually all of the manufacturing job gains as employers sought to control overhead costs. Those workers had accounted for 70 percent of the prerecession peak manufacturing work force and 91 percent of the decline in employment. Between November 1982 and December 1983, they made up 93

percent of the job gains. However, their number, at 13.2 million, was still about 1 million below the previous peak reached in the second quarter of 1981. It should be emphasized that several manufacturing industries had been confronted with serious secular problems prior to the recession—international competition, technological change, and the like. Thus, other things equal, it would be unrealistic to expect a complete recoupment of jobs in these industries.

Although gains in manufacturing were fairly pervasive, they were also somewhat uneven. More than three-quarters of the absolute increase occurred in durable goods, with especially large gains in industries closely connected to consumer spending on big-ticket items. For example, noteworthy employment increases were posted in lumber, furniture, electrical equipment, and transportation equipment. The increases in both lumber and electrical equipment began in early 1983, and by the end of the year the increases exceeded the number of jobs lost during the recession (July 1981–November 1982). Employment in transportation equipment, paced largely by motor vehicles and equipment, was up 12.8 percent or 210,000 jobs between November 1982 and December 1983. In the last quarter of 1983, domestic cars sold at more than a 7-million annual rate, and auto manufacturers' production schedules had increased from an annual rate of approximately 5 million units in the fourth quarter of 1982 to more than 7.5 million units near the end of 1983.⁵

Three durable goods industries with very large recessionary job losses—primary metals, fabricated metals, and machinery—posted only minimal gains in 1983 relative to the number of jobs lost. Between November 1982 and December 1983, employment in primary metals, which includes steel, increased by 60,000, or only one-fifth of the industry's seasonally adjusted job loss. While steel production and capacity utilization had increased significantly from the nadir of the recession, the restructuring which is occurring in the industry suggests that major advances in employment are unlikely in the near future. Employment in machinery, which dropped by more than 400,000 during the recession, continued to decline during the first half of 1983. A substantial increase in the growth of business equipment investment and nondefense capital goods shipments in the second quarter was instrumental in pushing the number of jobs in machinery up by 100,000 between the second and fourth quarters of 1983. However, growth in this component of investment was off in the latter half of the year, and its effect on future employment gains thus remains uncertain.

In nondurable goods, large advances occurred during the November 1982–December 1983 period in the rubber and plastics (85,000), printing (40,000), and apparel (70,000) industries, while a decline occurred in petroleum. Elsewhere, the number of jobs in the mining industry continued its downward trend through the first 5 months of 1983 before increasing during the remaining months.

Worker recalls? To what extent is the improved employment and unemployment picture, particularly in manufacturing, attributable to recalls of laid-off workers? Were the furloughed auto workers called back, did they find a job in another industry, or did they simply drop out of the labor force? The information needed to definitively answer these questions is not available. However, the nature and magnitude of employment growth during the recovery makes it implausible that the improvement could be attributable entirely to new hires.

Moreover, changes in the pattern of reasons reported for unemployment can provide some insight. During the recession, job loss—layoffs and permanent separations—is by far the major reason for increasing unemployment, particularly in cyclically-sensitive industries.⁶ For example, between the third quarters of 1981 and 1982, unemployment in manufacturing increased by 1.1 million. More than half of this increase (52 percent) was due to layoffs, with permanent separations accounting for the remainder. A similar pattern was evident in durable goods industries, while permanent job separations predominated in nondurable goods and in the construction industry. During the recovery phase, the improved unemployment picture was dominated by a reduction in layoffs. For example, 85 percent of the decline in unemployment of manufacturing workers between the third quarters of 1982 and 1983 was the result of a drop in the number of persons on layoff. (The proportions were 92 percent in durable goods, 65 percent in nondurable goods, and 52 percent in construction.)

Hours and part-time work. Two other important features of the state of the labor market in 1983 were changes in the number of involuntary part-time workers and the average number of hours worked. In a recession, employers typically resort to cutbacks in hours as well as layoffs and hiring freezes. Hours reductions tend to occur prior to layoffs. During the recovery period, as orders and production pick up, firms tend to restore hours prior to recalling persons on layoff or hiring new workers. In fact, the factory workweek, which had reached a low of 39 hours in December 1982, was up to 40.5 hours at the end of 1983, and the index of aggregate weekly hours of production workers in manufacturing—which reflects both employment and hours—rose 12 percent over the year.

Further insight into the improved job market can be gleaned by examining the series on the number of workers on part-time schedules for economic reasons. The two major reasons for involuntary part-time work are slack work (that is, employer-reduced hours), and the inability of persons to find a full-time job.⁷ Table 3 presents the number of persons at work in nonagricultural industries by type of work schedule.

The number of involuntary part-time workers increased steadily throughout the recession and peaked at 6.7 million workers—7.4 percent of the total number of persons at work in nonagricultural industries—in January 1983. Thereafter,

Table 3. Persons at work in nonagricultural industries by full- or part-time status, seasonally adjusted quarterly averages, 1981-83

Status	1981	1982	1983			
	III	IV	I	II	III	IV
Total at work (in thousands)	91,474	90,124	90,484	91,405	92,467	93,760
Full-time schedules	74,507	71,412	71,834	73,196	74,003	75,416
Part time for economic reasons	4,508	6,385	6,403	5,976	5,864	5,761
Part time for noneconomic reasons	12,459	12,327	12,247	12,234	12,600	12,583
Percent at work	100.0	100.0	100.0	100.0	100.0	100.0
Full-time schedules	81.5	79.2	79.4	80.1	80.0	80.4
Part time for economic reasons	4.9	7.1	7.1	6.5	6.3	6.1
Part time for noneconomic reasons	13.6	13.7	13.5	13.4	13.6	13.4

the number of involuntary part-timers decreased fairly steadily throughout the year. By year's end, there were 5.7 million such workers, 1.0 million fewer than in January.

It is useful to delve deeper into the source of this improvement to determine the industries in which these workers are concentrated. Some recent evidence suggests that the cyclical behavior of the "slack work" and "could only find part-time work" components differ.⁸ It appears, for example, that the slack-work rate improves (declines) much earlier in a recovery than the "failure to find" rate. This means that employees' hours are restored before there is sufficient economic improvement to enable firms to hire additional full-time workers. Moreover, as one would expect, the relative importance of each component varies among industries. This perspective is borne out in the current recession-to-recovery data. Changes in the slack work component are highlighted in the following unadjusted data on involuntary part-time workers as a proportion of the total at work for the third quarters, 1981-83, selected industries:

	Nonagri- cultural in- dustries	Manufac- turing	Wholesale and retail trade	Miscella- neous services
1981:				
Slack work ..	2.0	2.0	2.3	1.6
Could only find part time	2.5	.5	5.7	3.1
1982:				
Slack work ..	3.2	4.2	3.4	2.2
Could only find part time	3.2	.7	7.3	4.0
1983:				
Slack work ..	2.3	2.4	2.7	2.1
Could only find part time	3.6	.8	8.2	4.2

Between the third quarters of 1981 and 1982, the number of involuntary part-timers increased by 1.3 million persons,

68 percent of whom were put on short workweeks because of slack work. This group's proportion of the at-work total rose from 2.0 to 3.2 percent. With the onset of recovery, however, the number of workers subject to a slack workload declined, and by the third quarter of 1983 had fallen to 2.3 percent of total number of persons at work. The "could only find part-time" rate, on the other hand, continued to increase into the recovery, although at a much reduced rate.

Particularly dramatic differences are seen when manufacturing industries are compared with the two major service-producing industries. Swings in part-time work in manufacturing were dominated by slack workloads; the ratio to total at work went from 2.0 percent at the start of the recession to 4.2 percent in the latter half of 1982, before improving quickly to 2.4 percent of those at work in the third quarter of 1983. On the other hand, while slack work is also important in trade and services and behaves in the same cyclical manner as in manufacturing, the situation of only being able to find part-time work appears to be more predominant. The data also support the notion that persons who desire full-time work but are unable to obtain it settle for part-time jobs in those industries that provide such jobs—services and trade.

Employment among worker groups. Civilian employment, as measured by the Current Population Survey, declined by 1.4 million during the course of the downturn to a low of 99.2 million in the first quarter of 1983, and then rose by 3.3 million to 102.5 million by yearend. The number of employed adult men (those age 20 and over) increased by 1.9 million from its recession low and by the end of 1983 had surpassed the previous peak reached during the third quarter of 1981. Employment among adult women, which had increased, albeit at a slower pace, throughout most of the recession, increased by 1.4 million between the first and last quarters of 1983. Indeed, with the exception of teenagers, whose population and proportion of the labor force have been declining, all demographic groups shown in table 4 posted employment gains. Employment of blacks and Hispanics rose by 400,000 and 415,000 from their recession troughs, increases more than proportionate to their share of employment.

In addition to providing demographic information not available in the establishment survey, the household survey covers self-employed workers, whose numbers increased substantially in 1983. In contrast to earlier in the postwar period when self-employment growth tended to be countercyclical, in the past decade, self-employment has grown fastest in the expansionary phase of the cycle. Nevertheless, in relation to previous recoveries, the increase in self-employment from November 1982 through December 1983 was exceptionally large—360,000. The following tabulation shows the percent change in self-employment from the trough through the first 13 months of the recovery.

Recovery period	Total	Nonagricultural sector	Agricultural sector
Jan. 1970/Dec. 1971	0.8	2.0	-3.0
Mar. 1975/Apr. 1976	-0.6	.8	-5.0
July 1980/July 1981	0.4	1.4	-3.9
Nov. 1982/Dec. 1983	4.0	5.6	-3.0

The employment-population ratio provides a useful indicator of the economy's ability to generate enough jobs for a growing population, as the ratio is affected by changes in both the number of jobholders and the working-age population. The overall ratio for civilians declined throughout the recession and into the first quarter of 1983—from 59.4 percent in the second quarter of 1981 to 57.2 percent. By the fourth quarter of 1983, it had increased to 58.6 percent, still short of the prerecession high. Adult men, whose employment ratio dropped 3.1 percentage points during the recession, posted a ratio of 72.2 percent at yearend, an increase of 1.6 percentage points from their low point. In contrast, the ratio for adult women was only modestly affected by the recession and, at the end of the year, was a record 49.3 percent. Ratios fell substantially during the recession to lows of 48.8 percent for blacks, 53.6 percent for Hispanics, and 58.3 percent for whites. All three groups

posted gains during 1983, although at an uneven pace, and were still considerably short of their prerecession highs by yearend.

Unemployment improved, but still high

With strong employment growth during most of 1983, the level of unemployment dropped by 2.6 million between December 1982 and December 1983. Despite this improvement, the number unemployed, 9.2 million at yearend, and the civilian unemployment rate, 8.2 percent, were still quite high by historical standards, and there was continued concern about the magnitude of the numbers and the demographic composition of the jobless total.

At the end of 1983, nearly half the unemployed were adult men, a third were adult women, and the remainder were teenagers. Because about twice as many men as women became unemployed in 1982, it was not surprising that more men than women left the jobless ranks during the recovery period. Thus, the decline in unemployment between December 1982 and 1983 was greater for men (1.4 million or 24.3 percent) than for women (790,000 or 20.6 percent) or teenagers (410,000 or 21.7 percent). Despite the greater improvement for men during the year, jobless rates for women continued to be lower than men's, sustaining a pattern first noted in late 1981.

Table 4. Civilian employment and employment-population ratios for major labor force groups, seasonally adjusted quarterly averages, 1981-83

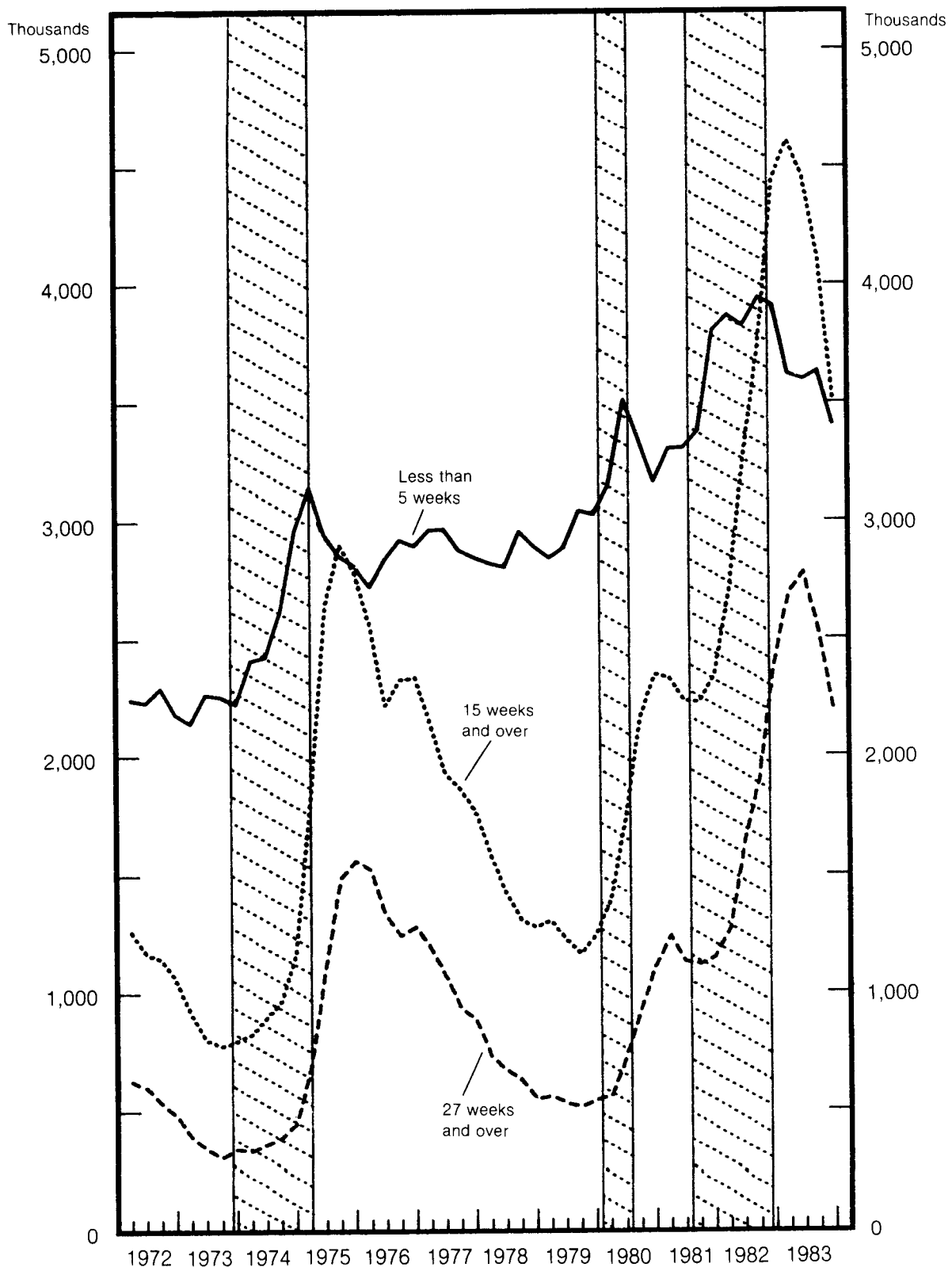
Group	1981		1982		1983	
	III	IV	I	II	III	IV
Total, civilian employment (in thousands)	100,452	99,054	99,214	100,037	101,528	102,506
Men, 20 years and over	53,709	52,537	52,563	53,095	53,839	54,418
Women, 20 years and over	39,568	40,108	40,313	40,654	41,324	41,717
Teenagers	7,175	6,409	6,338	6,288	6,366	6,370
White	88,815	87,368	87,459	88,231	89,485	90,353
Black	9,286	9,133	9,226	9,287	9,452	9,531
Hispanic origin	5,339	5,052	5,083	5,293	5,360	5,467
Married men, spouse present	38,819	37,642	37,511	37,710	38,256	38,374
Married women, spouse present	23,868	24,055	24,177	24,360	24,815	25,050
Women who maintain families	4,977	5,033	5,046	4,996	5,097	5,221
Total, civilian employment-population ratios (in percent)	58.9	57.2	57.2	57.5	58.2	58.6
Men, 20 years and over	74.0	70.9	70.6	71.1	71.8	72.2
Women, 20 years and over	48.4	48.1	48.2	48.5	49.1	49.3
Teenagers	44.4	41.1	41.0	41.0	41.9	42.3
White	59.9	58.3	58.2	58.6	59.3	59.7
Black	50.8	48.8	49.1	49.2	49.8	50.0
Hispanic origin	56.9	53.9	54.0	54.5	55.4	56.3
Married men, spouse present	76.8	73.8	73.7	74.0	74.4	74.8
Married women, spouse present	47.4	47.2	47.6	47.9	48.5	48.7
Women who maintain families	53.2	52.5	51.8	51.4	52.4	53.3

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

Duration. An important consideration in the overall evaluation of the health of the economy is the duration of unemployed persons' job search. Average duration of unemployment (the mean and median) and the number of weeks spent looking for work generally decrease with an upturn in the business cycle. However, their movements tend to lag behind other unemployment indicators because those who become unemployed early in the downturn typically have the least seniority and skills and, consequently, are the last to obtain jobs when conditions improve. This lag was clearly evident during the 1983 recovery period. While the level and rate of unemployment peaked in December 1982 at 11.9 million and 10.7 percent, respectively, both the average duration figures and the number jobless for a half year or more reached their highs after unemployment had been on the decline for 6 months.

Because increases in unemployment can be a function of both increased flows into the unemployment stream as well as increases in the duration of unemployment, it is useful to trace the pattern of the newly unemployed, that is, those who have been unemployed for less than 5 weeks. Chart 1 shows that during the months preceding the economic downturn of 1981-82, the number of short-duration unemployed began to increase. But as the downturn deepened, the increased levels of unemployment moved into the longer duration categories and ultimately into the 27 week and longer group. During the initial months of the 1983 recovery, the number entering unemployment declined, while the long-term unemployed continued to increase. It was not until the

Chart 1. Unemployed persons by duration, seasonally adjusted quarterly averages, 1972-83



NOTE: Shaded areas denote recessions.

Table 5. Unemployed persons by duration of unemployment, seasonally adjusted quarterly averages, 1981-83

[Numbers in thousands]

Duration	1981	1982	1983			
	III	IV	I	II	III	IV
Less than 5 weeks	3,379	3,913	3,622	3,598	3,634	3,405
5 to 14 weeks	2,465	3,454	3,224	3,034	2,859	2,615
15 weeks and over	2,228	4,449	4,608	4,464	4,122	3,517
15 to 26 weeks	1,106	2,053	1,914	1,686	1,591	1,331
27 weeks and over	1,122	2,396	2,693	2,778	2,530	2,186
Mean duration, in weeks	13.9	17.7	19.2	20.3	20.5	20.0
Median duration, in weeks	7.1	10.1	10.5	11.2	9.6	9.3
Total unemployed (in percent)	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	41.9	33.1	31.6	32.4	34.2	35.7
5 to 14 weeks	30.5	29.2	28.1	27.3	26.9	27.4
15 weeks and over	27.6	37.6	40.2	40.2	38.8	36.9
15 to 26 weeks	13.7	17.4	16.7	15.2	15.0	14.0
27 weeks and over	13.9	20.3	23.5	25.0	23.8	22.9

third quarter of 1983 that the number of long-term unemployed, too, began to decline. (See table 5.) This lead and lag phenomenon is fairly typical of unemployment cycles.

Men were unemployed for more successive weeks in 1983 than either women or teenagers, as more than two-fifths of those who were unemployed at the end of 1983 had been looking for work for 15 weeks or longer, and more than two-thirds of this long-term group had been searching for a job for at least 27 weeks. About one-third of the women had been jobless for 15 weeks or more, and, like men, two-thirds of them had been job hunting for at least 27 weeks. Slightly more than one-fifth of the teenagers were unemployed for 15 weeks or more, but less than half were unemployed for as long as 27 weeks.

The following tabulation shows median duration, in weeks, for men, women, and teenagers, quarterly, 1982-83:

	Men	Women	Teenagers
1982:			
IV	11	9	7
1983:			
I	14	10	8
II	18	10	5
III	13	7	6
IV	12	7	6

Not only is the duration of unemployment longer for men than for women or teenagers, but the gap widens during a downturn. A possible explanation for the shorter duration of women and teenagers is that they tend to enter and leave the job market more often than men. They are also more likely to end a spell of unemployment by dropping out of the labor force.⁹

Job losers, leavers, and entrants. The unemployed are classified by whether they have lost their last job because of layoff or other reasons, left it voluntarily, are entering the job market for the first time, or are reentering after a period of absence. Reflecting the economic expansion of

1983, the number of unemployed persons who had lost their jobs declined by 2.3 million to about 5.0 million by December, with, as indicated earlier, the greatest part of that decline among persons on layoff, who accounted for more than half of the reduction. The improvement among job losers was more than twice the rate of recovery registered in the 13 months following the 1973-75 recession.

As the job-loser share of unemployment declines during expansionary periods, the share of persons who voluntarily quit a job in order to search for another increases significantly. The number of unemployed job leavers reached a low of 6.8 percent of total unemployment during the fourth quarter of 1982—it had been 11.5 percent in the third quarter of 1981—and was up to 9.0 percent by the final quarter of 1983. Typically, upward movement in this indicator augurs increased confidence about job prospects, a confidence borne out by strong employment growth. The number of unemployed new entrants and reentrants remained about the same over the year.

Selected characteristics of joblessness

Racial and ethnic differences. The overall decline in jobless rates was predominantly fueled by a decline in the unemployment of white workers. (See table 6.) While the white jobless rate peaked in the final quarter of the 1981-82 downturn, the black rate, which had registered virtually no improvement during the 1980-81 recovery, continued increasing until the second quarter of 1983. Nevertheless, during the third quarter of 1983, there was a strong downward movement in the black unemployment rate that carried over into the fourth quarter.

To a large extent, the higher jobless rate for blacks in 1983 than in 1982 was a result of the increasing unemployment of black teenagers, whose jobless rate reached a record 50 percent in the third quarter, and only dropped back to 48 percent in the final quarter of the year. In comparison, between the fourth quarters of 1982 and 1983, the

Table 6. Unemployment rates for major labor force groups, seasonally adjusted quarterly averages, 1981-83

Group	1981	1982	1983			
	III	IV	I	II	III	IV
Total (all civilian workers)	7.4	10.6	10.4	10.1	9.4	8.5
Men, 20 years and over	6.1	9.9	9.7	9.4	8.7	7.8
Women, 20 years and over	6.8	9.0	8.9	8.5	7.9	7.2
Teenagers	19.0	24.1	23.1	23.3	22.4	20.6
White	6.4	9.5	9.1	8.8	8.1	7.4
Black	15.8	20.6	20.2	20.4	19.4	17.9
Hispanic origin	9.8	15.3	15.6	14.2	12.8	12.1
Married men, spouse present	4.1	7.5	7.2	6.9	6.2	5.5
Married women, spouse present	5.8	8.1	7.7	7.5	6.9	6.2
Women who maintain families	10.7	12.5	13.2	12.7	11.9	11.0
Full-time workers	7.1	10.6	10.3	10.0	9.3	8.3
Part-time workers	9.5	11.0	10.5	11.1	10.2	9.8

black adult rate decreased from 18 percent to 15 percent, largely because of improvements among men. Among Hispanics, unemployment declined each quarter in 1983, with the sharpest drop occurring in the third quarter.

Age, sex, and industry. While still higher than at the outset of the recession in the third quarter of 1981, joblessness for men and women and for teenagers declined in 1983 from the fourth quarter of 1982, with each quarter showing some improvement. As discussed earlier, the jobless rate for men traditionally has been lower than that for women. However, as the 1981–82 recession intensified, particularly in the male-dominated goods-producing sector, this relationship began to change. In 1982, for the first time in more than three decades, the unemployment rate for men exceeded that for women on an annual average basis. Although the male rate remained higher than the female rate throughout 1983, the gap narrowed considerably toward the end of the year, commensurate with the faster pace of improvement for male unemployment.

Teenagers continued to account for a disproportionate share of the unemployed, as shown in the following tabulation of seasonally adjusted fourth-quarter data:¹⁰

	1979	1980	1981	1982	1983
Teenagers as a percent of the civilian labor force	9.2	8.7	8.3	7.7	7.3
Teenagers as a percent of total unemployed	25.3	21.9	21.3	18.5	17.1

The declining proportion of unemployed teenagers resulted largely from a more rapid increase in the number of unemployed adults and the shrinking of the teenage population and labor force.

The reduction in unemployment was reflected in a wide range of industries. Table 7 contains quarterly average unemployment rates among wage and salary workers in selected industry categories. The unemployment rate for manufacturing workers improved throughout 1983 and, at 8.9 percent in the fourth quarter, was more than 5 percentage points below its recession high. Substantial improvement occurred in each of the manufacturing industries shown. The unemployment rate for construction workers dropped from 22 percent in the fourth quarter of 1982 to about 16 percent in the last 3 months of 1983.

The service-producing sector was less affected by the recession, but the unemployment situation nonetheless generally worsened during 1982. For example, in the sector as a whole, the unemployment rate went from 6.6 percent in the third quarter of 1981 to 8.8 percent by the end of 1982. By the end of 1983, it had edged down to 7.7 percent.

Among the major industry groups, the incidence of unemployment was unevenly distributed by sex. (See table 8.) As discussed earlier, there have been large employment gains in a number of industries, with accompanying declines

Table 7. Unemployment rates of nonagricultural wage and salary workers by industry, seasonally adjusted quarterly averages, 1981–83

Industry	1981	1982	1983			
	III	IV	I	II	III	IV
Nonagricultural private wage and salary workers	7.5	11.3	10.8	10.3	9.6	8.6
Goods-producing	9.0	15.8	14.5	13.8	12.3	10.4
Mining	5.7	18.2	18.6	19.7	16.1	12.4
Construction	15.7	22.1	20.1	19.5	18.0	15.9
Manufacturing	7.6	14.2	13.0	12.1	10.7	8.9
Durable goods	7.3	16.1	14.5	13.2	11.3	9.2
Lumber and wood products	11.6	17.1	16.1	16.1	14.8	12.7
Furniture and fixtures	8.3	16.5	15.1	12.6	11.1	10.8
Primary metal industries	7.9	25.7	26.6	21.2	17.3	14.5
Fabricated metal products	8.6	18.0	15.5	14.6	14.8	11.9
Machinery, except electrical	5.4	15.0	15.3	13.6	11.5	8.0
Electrical machinery, equipment, and supplies	6.4	12.2	11.4	10.2	8.3	6.0
Automobiles	13.2	22.4	16.4	14.8	10.9	8.5
Nondurable goods	8.0	11.4	10.9	10.5	9.8	8.6
Textile mill products	9.1	12.4	11.2	10.4	9.5	7.0
Apparel and other textile products	11.6	15.1	14.8	13.6	11.3	10.1
Rubber and miscellaneous plastics products	9.9	14.4	11.0	10.7	9.9	10.8
Private service-producing	6.6	8.8	8.8	8.5	8.2	7.7
Transportation and public utilities	4.6	8.1	7.8	7.6	7.5	6.8
Wholesale and retail trade	8.2	10.7	10.9	10.2	9.7	9.2
Finance and services	5.8	7.6	7.4	7.3	7.2	6.7
Government	4.7	5.2	5.7	5.5	5.2	5.0

in unemployment. Men and women in the goods-producing industries—especially in durable goods manufacturing—experienced the largest over-the-year unemployment declines. However, unemployment rates remained higher among women than among men in manufacturing, particularly in nondurable goods manufacturing. In the service-producing sector, unemployment rates for men and women declined less, and, in most instances, the declines were comparable, at least at the major industry levels. However, in finance and in services, women showed no over-the-year reductions, while men did.

Major occupation. Because employment in the manufacturing and construction industries is more sensitive to cyclical movements, it follows that the occupations which are concentrated in these industries—precision production, craft and repair, and operators, fabricators, and laborers—are more likely to evidence unemployment declines during economic recoveries.¹¹ With over-the-year employment increases, these two major occupational groups showed a decline in unemployment of 1.5 million. Three-fourths of this decline was concentrated in the operators, fabricators, and laborers occupations, but, even so, this group still had the highest unemployment rate among the major occupations. (See table 9.)

Unemployment also declined over the year among managerial and professional workers, who have the lowest jobless rates. In the service occupations traditionally least affected

by cyclical downturns, unemployment rates remained quite high, even after a year of recovery.

Families and marital status. The proportion of families having at least one member unemployed declined to 10.9 percent from 13.6 percent between the fourth quarters of 1982 and 1983. In 60 percent of those 6.8 million families, the effects of unemployment were mitigated, to some extent, by the full-time employment of some other family member, up from 58 percent a year earlier.

A family's experience with unemployment differed significantly by race and ethnic origin in 1983. The proportion of black families experiencing some unemployment was almost 21 percent at yearend, compared with 10 percent among white families. These proportions represented a slight decrease for both black families and white families over 1982. Unemployment touched about 16 percent of Hispanic families in late 1983, down from more than 19 percent a year earlier.

As with most other unemployment indicators, the jobless rates of married men and women peaked in the fourth quarter of 1982. Typically, their rates are well below the national average. For example, the December 1983 rate for married men, at 5.2 percent, was 3.0 percentage points below the national average, while the rate for married women, at 6.1 percent, was 2.1 percentage points below. On the other hand, women who maintain families have considerably higher than average unemployment rates. (See table 6.)

Discouraged workers. Of the 63 million persons not in the labor force in 1983 (on average), about 90 percent did not want jobs. Of these, slightly more than half were women keeping house. Others not in the labor force who did not want jobs were retired workers, students, and those who were either ill or disabled. The remaining 6.5 million persons outside the work force want jobs "now" but are not looking for work because of ill health, school attendance, home responsibilities, or because they think they cannot

Table 9. Occupational status of the employed and unemployed, fourth quarters 1982 and 1983, not seasonally adjusted

(Numbers in thousands)

Occupation	1982			1983		
	Civilian employed	Unemployed	Unemployment rate	Civilian employed	Unemployed	Unemployment rate
Managerial and professional specialty	23,567	845	3.5	24,071	654	2.6
Technical, sales, and administrative support	31,048	2,192	6.6	31,843	1,868	5.5
Service occupations	13,496	1,712	11.3	14,115	1,603	10.2
Precision production, craft, and repair	11,554	1,475	11.3	12,814	1,138	8.2
Operators, fabricators, and laborers	16,051	3,558	18.1	16,618	2,431	12.8
Farming, forestry, and fishing	3,607	408	10.2	3,365	398	10.6

find work. This last group is commonly referred to as "discouraged workers."

Discouraged workers—although reporting that they want a job—are excluded from counts of the unemployed, with whom they often are compared, because they have not looked for work during the 4 weeks prior to being surveyed. Changes in their number generally follow cyclical changes in unemployment. For example, the number of discouraged workers reached a recession high of 1.8 million in the fourth quarter of 1982, the same time the unemployment rate peaked. (See table 10.) As the unemployment rate began to decline, so too did the number of discouraged workers, such that by the final quarter of 1983 their number was down to 1.5 million.

About three-fourths of discouraged workers cited "job market factors" as the reason for their discouragement in 1983. These include the individual's repeated failure in finding a job or the belief that no suitable jobs existed in his or her line of work or geographic area. The rest of the discouraged workers cited "personal factors" for their discouragement, namely, the belief that employers would not hire them because they lack the necessary education or skills, are too young or too old, or are otherwise not acceptable for employment. The group citing job market factors for its discouragement is much more strongly influenced by changes in the business cycle. Accordingly, the decline in the number of discouraged workers from the final quarter of 1982 to the fourth quarter of 1983 of nearly 350,000 occurred almost exclusively among this group. Discouragement because of personal factors is usually insensitive to cyclical changes; the number actually increased between the first two quarters of 1983, and then remained constant at about 410,000 for the remainder of the year.

Women are somewhat more likely than men to be discouraged workers. Their number peaked at 1.1 million during the fourth quarter of 1982, compared with a peak for men of 695,000 (reached in the first quarter of 1983). Also,

Table 8. Unemployment rates for nonagricultural private wage and salary workers by industry and sex, fourth quarters 1979, 1982, and 1983, not seasonally adjusted

Industry	1979		1982		1983	
	Men	Women	Men	Women	Men	Women
Mining	4.3	2.5	19.1	4.3	12.8	4.7
Construction	9.5	7.2	20.3	15.9	14.5	11.4
Manufacturing	4.7	7.7	13.2	15.5	8.3	9.6
Durable goods	4.9	6.6	15.3	16.9	8.8	9.5
Nondurable goods	4.4	8.7	9.1	14.0	7.4	9.8
Transportation and public utilities	3.6	4.7	8.1	5.9	6.8	5.1
Wholesale and retail trade	5.1	7.2	9.2	11.4	8.1	9.8
Finance, insurance, and real estate	1.9	3.4	5.3	5.0	3.8	4.4
Services, excluding private households	5.0	5.4	9.1	7.7	8.1	6.7

the level of discouragement among women was fairly constant for most of 1983. Discouragement among men followed a more cyclical pattern, with a pronounced decline during the year. Blacks make up a very disproportionate share of the discouraged group when compared with whites—about 30 percent in recent years.

The labor force

The civilian labor force, at 112.0 million in the final quarter, grew at almost the same pace in 1983 as in 1982, finishing the year 1.3 million higher, compared with increases of 1.7 million in 1982 and 1.6 million in 1981. Most of the labor force growth occurred in the third quarter. (See table 11.)

The relatively slow rate of labor force increase is the result of several factors. There have been fewer persons reaching working age in recent years because the high birth rates of the 1950's and early 1960's were not sustained in the later 1960's and early 1970's. The number of teenagers of labor force age has dropped steadily from a high of 16.7 million in the fourth quarter of 1977 to 15.1 million by the fourth quarter of 1983. The drop in the teenage population is the dominant reason for the declining rate of increase in the overall working age population (16 years and older), from 2.6 percent between 1971 and 1972 to 1.1 percent between 1982 and 1983.

Women accounted for more than half of the labor force growth in 1983. At 48.8 million, they accounted for nearly 44 percent of the labor force in December, reflecting a marked increase during the postwar era. However, the rate of increase has slowed somewhat in recent years. Although women constituted a larger share of the labor force in 1983 than in any previous year, they did not enter the job market at the same pace as in earlier years. This has also contributed to the slower than usual labor force growth over the year. The following tabulation shows women as a percent of the civilian labor force, 1974–83:

<i>Year</i>	<i>Percent</i>	<i>Year</i>	<i>Percent</i>
1974	39.4	1979	42.1
1975	40.0	1980	42.5
1976	40.5	1981	43.0
1977	41.0	1982	43.3
1978	41.7	1983	43.5

The labor force participation rate—the proportion of the civilian population in the labor force—averaged the same in 1983 as in the prior year. The rate for men has been declining fairly consistently since the early 1950's, largely because of the labor force withdrawal of older men.¹² In particular, the participation rate for white men has been declining steadily over the past three decades, with the largest year-to-year decline occurring over the 1974–75 period. The drop from 79.2 percent in 1982 to 78.9 percent in 1983 reflects a continuation of the trend over the decades. During the year, however, there was some upward movement in their rate, especially during the first 6 months, as the eco-

Table 10. Discouraged workers by selected characteristics, seasonally adjusted quarterly averages, 1981–83

[In thousands]

Characteristic	1981	1982	1983			
	III	IV	I	II	III	IV
Total	1,110	1,813	1,765	1,726	1,610	1,457
Job-market factors	822	1,393	1,408	1,316	1,197	1,046
Personal factors	288	420	357	411	413	411
Men	396	683	695	683	607	620
Women	714	1,131	1,070	1,043	1,003	836
White	751	1,252	1,194	1,245	1,076	974
Black	324	522	512	431	473	458

nommic recovery began to take hold.

As with white men, the rate for black men has also shown a general downward trend. Although the participation rate for black men was slightly higher in 1983 than in 1982, most of the increase came, as it did for whites, in the first half of the year. The last 6 months brought a slight decline in the participation rate for black men.

The participation rate for women was 53.1 percent in 1983, compared with 52.7 percent a year earlier and 41.6 percent in 1968. The secular increase for women has accompanied a tremendous expansion in the service sector where women have obtained the majority of new jobs. For example, 15 years earlier, service-producing industries employed about 44 million persons, of whom some 19 million were women. By 1983, total employment in this sector had grown by 21 million to 66 million, 33 million of them women. In the last decade and a half, then, women have accounted for two-thirds of the increase in service-producing employment. It is possible that better employment opportunities for women in the growing services sector may have contributed to their greater labor force participation. It is too early to draw any firm conclusions about future trends in women's participation rates, but it is clear that there has been a reduction in the rate of increase thus far in the 1980's.

White women have entered the labor force at a much faster pace than black women over the past decade. In 1983, however, the increase in the participation rate between the two groups was about the same.

The labor force participation rate for the Hispanic population, which peaked at 64.1 percent in 1981, was the same in 1983 as in 1982—63.6 percent.

The rate at which teenagers participate in the labor force increased from the early 1960's, when it was about 45 percent, and reached a high of almost 58 percent in 1978 and 1979. Since then, however, their participation has been on a downward trend, finishing 1983 at slightly more than 53 percent.

The factors that motivate teenagers to join the work force are complex and include, among other issues, family economic situation, whether their friends work, the cost of education, their interests, and potential earnings. Most recently, the declining teenage participation rate may have stemmed from the recessions of 1980 and 1981–82. To the

Table 11. Civilian labor force and participation rates for major age-sex groups, seasonally adjusted quarterly averages, 1982-83

[Numbers in thousands]

Group	1982				1983			
	I	II	III	IV	I	II	III	IV
Total, civilian labor force	109,414	110,192	110,517	110,829	110,700	111,277	112,057	112,012
Men, 20 years and over	57,608	57,963	58,130	58,335	58,208	58,634	58,983	59,017
Women, 20 years and over	43,141	43,662	43,949	44,053	44,247	44,442	44,868	44,971
Teenagers	8,665	8,567	8,439	8,441	8,245	8,201	8,206	8,024
Total, participation rate	63.8	64.1	64.1	64.0	63.8	64.0	64.2	64.0
Men, 20 years and over	78.7	78.9	78.8	78.7	78.2	78.5	78.6	78.4
Women, 20 years and over	52.4	52.8	52.9	52.9	52.9	53.0	53.3	53.2
Teenagers	54.4	54.1	53.7	54.1	53.3	53.4	54.0	53.2

extent that teenagers are unskilled or untrained, or are perceived by employers to have only a transient commitment to the job market, it becomes especially hard for them to find employment during a recessionary period. This, of course, is not lost on the teenager, who may be in or out of school but who has not yet begun to search for a job. Together with rapidly increasing unemployment among adult and more experienced workers, it may be the psychologically inhibiting factor telling the teenager not to enter the labor force. But whatever the cause, a declining participation rate has

been noted among teenagers over the past 3 to 4 years and is yet another factor in the slackened pace of labor force growth.

AS 1983 ENDED, the economic recovery was 13 months old. Over this span, the labor market situation improved considerably. Employment as measured by the household survey increased by 3.9 million, while the unemployment rate, at 8.2 percent, declined from its recession peak of 10.7 percent. □

—FOOTNOTES—

¹ This article uses data from two main sources: the Current Employment Statistics program and the Current Population Survey. Statistics on non-agricultural payroll employment and hours from the Current Employment Statistics program are collected by State agencies from payroll records of employers and are tabulated by the Bureau of Labor Statistics. Data on labor force, total employment, and unemployment are derived from the Current Population Survey, a sample survey of households conducted and tabulated by the Bureau of the Census for the Bureau of Labor Statistics. A description of the two surveys appears in the monthly Bureau of Labor Statistics publication, *Employment and Earnings*.

² The BLS diffusion index measures the percent of industries which posted increases in employment over a specified time span. The index is calculated from 172 unpublished seasonally adjusted employment series (two-digit nonmanufacturing industries and three-digit manufacturing industries) covering all nonagricultural payroll employment in the private sector.

³ For some attempts to analyze the (hypothesized) changing cyclical nature of several kinds of economic indicators, see Martin Neil Baily, "Stabilization Policy and Private Economic Behavior," *Brookings Papers on Economic Activity*, No. 1, 1978, pp. 11-60; Norman Bowers, "Have employment patterns in recessions changed?" *Monthly Labor Review*, February 1981, pp. 15-28; Jeffrey Sachs, "The Changing Cyclical Behavior of Wages and Prices: 1890-1976," *American Economic Review*, March 1980, pp. 78-90; and Charles L. Schultze, "Some Macro Foundations for Micro Theory," *Brookings Papers on Economic Activity*, No. 2, 1981, pp. 521-92.

⁴ Unless otherwise noted, the employment changes cited in the text refer to the November 1982 to December 1983 period. This is done to be consistent with National Bureau of Economic Research cycle dates.

⁵ For more information, see Douglas R. Fox, "Motor Vehicles, Model Year 1983," *Survey of Current Business*, October 1983, pp. 20-22.

⁶ For an excellent treatment of this issue, see Robert W. Bednarzik,

"Layoffs and permanent job losses: workers' traits and cyclical patterns," *Monthly Labor Review*, September 1983, pp. 3-12.

⁷ See Robert W. Bednarzik, "Short workweeks during economic downturns," *Monthly Labor Review*, June 1983, pp. 3-11; and Philip L. Rones, "Response to recession: reduce hours or jobs?" *Monthly Labor Review*, October 1981, pp. 3-11.

⁸ See Robert W. Bednarzik, "Short workweeks."

⁹ For a comprehensive review of teenage and youth unemployment, see Norman Bowers, "Tracking youth joblessness: persistent or fleeting?" *Monthly Labor Review*, February 1982, pp. 3-15.

¹⁰ See testimony of Commissioner of Labor Statistics Janet L. Norwood before the U.S. Senate Committee on Environment and Public Works, Apr. 18, 1983. Norwood's testimony was subsequently published as *Youth Unemployment: A Look at the Data*, Report 695 (Bureau of Labor Statistics, 1983).

¹¹ Beginning with January 1983, the Bureau of Labor Statistics began coding all occupational data in accordance with the classification system used in the 1980 decennial census which, among other changes, eliminated blue-collar and white-collar designations. The new occupational categories are so different from those previously published that their implementation represents a major break in historical data series. The full occupational titles for the six new major occupational groups are included in table 9. For a technical discussion of the occupational revision procedures, see Gloria Peterson Green and others, "Revisions in the Current Population Survey Beginning in January 1983," *Employment and Earnings*, February 1983, pp. 7-15.

¹² This was briefly alluded to by Robert W. Bednarzik and others in "The employment situation in 1981: new recession takes its toll," *Monthly Labor Review*, March 1982, p. 13. For a more comprehensive discussion of the subject, see Philip L. Rones, "The labor market problems of older workers," *Monthly Labor Review*, May 1983, pp. 3-12.