The 1990–91 recession: how bad was the labor market?

The most recent recession was milder than earlier postwar contractions, but many labor market measures did not improve until well after the official end of the downturn

Jennifer M. Gardner

The United States experienced nine periods of widespread economic decline over the past 46 years. These periods—commonly referred to as recessions-were characterized by sharp and nearly simultaneous contractions in many activities, such as housing construction, car sales, and the placing of orders for durable goods. This economic weakness has always been accompanied by decreasing employment and increasing unemployment.

The most recent recession officially started in July 1990, bringing to a close the Nation's longest peacetime expansion on record. This recession officially ended 8 months later in March 1991. By most economic measures, the 1990– 91 downturn was mild compared to previous contractions. Yet, several factors unique to this recession and its aftermath made its impact on the U.S. work force quite severe:

- The labor market continued to deteriorate long after other economic indicators began to improve and the official ending date of the recession was chosen. During earlier business cycles, in contrast, the turning points for nonfarm employment and for unemployment were nearly coincident with the official trough months of recessions.
- Employment declines were more widespread across the major occupational and industry groups in the 1990–91 recession than in past contractions. White-collar workers in general, and workers in the finance, insurance, and real

estate industry were at greater risk of losing their jobs in the early 1990's than at any time in the past. Also, the rate of employment decrease in both wholesale and retail trade was nearly twice that of the averages of prior contractions.

• A much smaller share of the unemployed who lost jobs in the recent recession expected to be rehired when the economy improved than was the case for workers losing jobs in other downturns.

These topics are discussed in further detail as part of a comparison of overall changes in the labor market during the 1990-91 recession and earlier downturns. This article focuses mainly on demographic and occupational employment and unemployment data collected through the Current Population Survey.2 Industry data collected through the Bureau of Labor Statistics Current Employment Statistics survey, a sampling of employers, also are used, but more detailed analyses of those data were presented in the July 1993 issue of the Review.³

The starting and ending dates of U.S. recessions, known as the "official" peaks and troughs, are determined by the National Bureau of Economic Research (NBER).⁴ As stated earlier, the turning points for employment and unemployment have often been quite coincident with these official peak and trough months. There have, however, been a few instances when the turning points for the major labor market series varied greatly from the NBER peak and trough dates. For

Jennifer M. Gardner is an economist in the Division of Labor Force Statistics, Bureau of Labor Statistics. example, 11 months after the official beginning of the 1973–75 recession, nonfarm employment was still increasing. More recently, nonfarm employment and unemployment continued to worsen for about a year following the designated endpoint of the 1990–91 downturn. Also, the turning points for some of the component employment and unemployment series (such as those for teenagers) consistently show major variations from official recession dates. For such reasons, this article uses data on the specific highs and lows for component series to supplement the analysis. But, unless otherwise noted, official peaks and troughs are utilized to identify recessionary periods.

The 1940's to the 1980's

Employment. As business activity falls during recessions, companies dismiss workers to cut costs and accommodate reduced production. The largest employment cutbacks occur in the goodsproducing industries, as weakened demand for such big-ticket items as houses, cars, and appliances results in layoffs. This, in turn, has negative effects on related industries-including transportation, and wholesale and retail trade. (See table 1.) Services provided by some other industries, however, can remain in relatively high demand throughout economic contractions. For example, employment in health services, government, and finance has historically increased during recessions, though often at a slower pace than during expansions.⁵

The concentration of recessionary job losses in certain industries causes employment changes among specific worker groups to vary. Adult men, for example, accounted for about 80 percent of the decline in employment in the eight recessions prior to 1990. This reflects their large share of workers in the goods-producing industries, transportation and public utilities, and wholesale trade, where the bulk of recessionary job losses occur. Overall, employment of adult men dropped by an average of 1.8 percent during the eight earlier downturns. (See table 2.)

Adult women, in contrast, have been more likely to work in industries that do not typically show employment declines during recessions. The services and finance, insurance, and real estate industries—in which many women work—nearly always added workers to their payrolls during economic contractions prior to 1990.⁶ As a result, employment of adult women actually rose by an average of 0.4 percent during those recessions.

Teenage employment tends to drop sharply during economic contractions despite the fact that these young workers are most highly concentrated in retail trade, an industry which has been affected relatively mildly by recessions. Much of the large decline in teenage employment—which averaged 5.7 percent during the recessions prior to 1990—probably occurs because employers view young workers as less productive and more easily replaced than adults, who generally have more years of education and work experience. Also, employers often have invested less

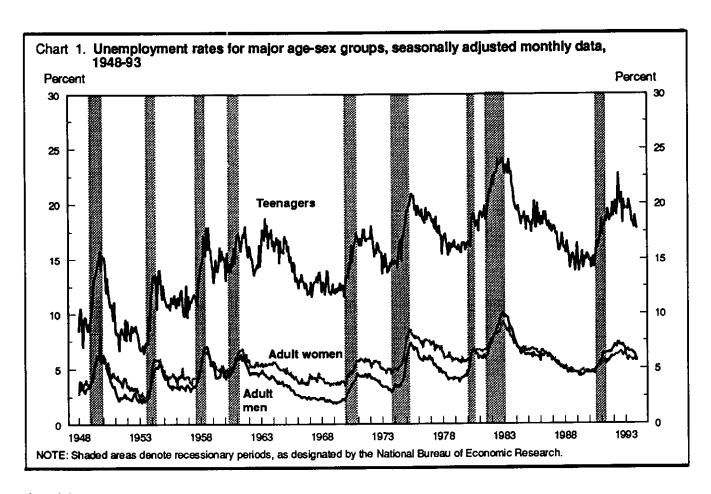
Table 1. Change in nonfarm employment during the official span of recessions by industry, 1948–91 [In percent]

	1990-	·91 ¹	Prior recession average	1981–82	1980	1973–75	1969–70	1960-61	1957–58	1953–54	1948–49²
Industry	Number (in thousands)	Percent									
Nonfarm					-						
employment	-1,143	-1.0	-2.7	-3.0	-1.2	-1.8	-1.2	2.2	-4.0	-3.0	-5.0
Goods-producing	-1,006	-4.0	-8.1	-10.4	-5.4	-10.9	~6.8	-5.6	-8.0	-7.2	-10.7
Mining	~5	7	~4.1	_13.3	2.1	12.8	2	-7.7	- 10.6	-8.9	-7.1
Construction	-382	-7.5	-5.5	-7.8	-7.3	-15.1	-1.9	-4.6	-5.8	1.0	-2.3
Manufacturing	-619	-3.2	-8.4	-10.8	-5.3	-10.7	-7.9	-5.7	-8.3	-8.4	-10.0
Durable goods	-490	-4.4	-11.4	-14.0	-6.8	-11,3	-11.2	-8.1	-11.9	-11.2	-16.3
Nondurable goods .	- 129	1.6	-4.4	~5.9	-3.2	-9.9	-3.1	-2.5	-3.3	-4.5	-2.8
Service-producing Transportation and	- 137	2	.3	1	.5	2.5	1.7	1	-1.4	.0	9
public utilities	-31	5	-3.9	-3.0	-1.4	-3.1	.3	-3.6	-6.7	-5.4	-7.9
Wholesale trade	. −86 l	-1.4	7	~2.8	5	1.2	.5	8	-1.3	.1	-1.6
Retail trade	-286	-1.5	9	.0	- 1.7	.3	.7	-2.4	-2.6	7	9
Finance, insurance,	1 1	1									
and real estate	-22	3	1.8	.9	1.5	1.3	2.8	1.9	1.2	3.3	1.6
Services	159	.6	2.1	2.7	2.4	4.8	2.3	2.3	4	1.5	1.0
Government	129	.7	1.7	-1.9	1.1	5.2	2.8	.7	1.6	2.0	1.7

¹ The data for this recession exclude the temporary census workers hired and then dismissed in 1990.

sion—about 400,000 mining workers were out on strike. To capture only cyclical declines, the ending date used in this table for mining employment was September 1949.

² In October 1949—the мвяя-desginated endpoint of the 1948–49 reces-



in training their young workers, and may thus assume that when business picks up, securing replacement workers will not be too costly. But the large decline could also reflect the fact that employers—out of "civic responsibility"—may dismiss young workers before letting adults go. These factors probably also explain why teenage employment starts to decline before the economy is officially declared in recession, and continues to drop off after other economic indicators have turned around. The average period of employment decline associated with the economic contractions prior to 1990 was about 2 years for 16- to 19-year-olds—more than twice that for adults.⁷

Among the race and ethnic groups, blacks and Hispanics were more adversely affected by the recessionary period in the early 1980's than were whites. During that time, the Hispanic population was increasing quite rapidly, making comparisons of changes in the *level* of employment misleading. Instead, decreases in the employment-to-population ratio—which accounts for changes in population as well as employment—give a better indication of how these groups fared in general, and in relation to each other.

Employment-to-population ratios for blacks and Hispanics decreased throughout most of the

recessionary period of the early 1980's, even during the mild expansion sandwiched between the 1980 and 1981-82 downturns. Their ratios dropped 5.1 and 5.4 percentage points, respectively, over the entire recessionary period. In contrast, the employment-to-population ratio of whites increased slightly between the 1980 and 1981-82 recessions. From its peaks to troughs, the ratio for whites declined 1.2 and 2.2 percentage points in those respective recessions. The differences in the duration and magnitude of the decline among whites, blacks, and Hispanics reflect a combination of education, work experience, and, undoubtedly, discrimination, as well as the performance of the industries in which members of the three groups tend to work. For example, Hispanics make up a disproportionate share of workers in construction and manufacturing—two industries typically hard hit by recessions—and they have the lowest levels of education, on average, among the race/ethnic groups. In contrast, whites are more likely to work in white-collar occupations and have higher levels of education, two factors conducive to getting and keeping jobs.

Unemployment. Examining changes in unemployment is another way to measure the relative

effects of recessions on different worker groups. During the recessions prior to 1990, the average increase for the overall unemployment level was 73 percent and, for the jobless rate, 3 percentage points. (See tables 3 and 4.) The percent increase in both the level and rate of unemployment was largest for adult men and smallest for teenagers. This contrasts with the previously described changes in employment during recessions, which show teenagers more likely than adults to lose jobs. Young jobholders—who often work just for their own spending money—may not show up as unemployed after losing or leaving their jobs because they have dropped out of the labor force instead of searching for new work. Those who do become unemployed are likely to have relatively short terms of job search; if jobs do not come easily, teenagers are apt to stop looking and drop out of the labor force. Adult men, at the other extreme, typically have greater financial responsibilities and, as a result, continue to look for work longer and rarely leave the labor force. It should be noted, however, that teenagers have, by far, the highest unemployment rate. and that the absolute increase in the rate in the recessions prior to 1990 was the largest for 16to 19-year-olds. (See chart 1.)

The early 1990's

Employment. Nonfarm employment declined 1.0 percent between July 1990 and March 1991, the most recent NBER-designated period of recession.9 (See table 1.) However, employment continued to trend downward for nearly a year after the recession end date, reaching its trough in February 1992. Over that extended period, employment decreased at a slower pace, and, from the official recession start date to the trough in nonfarm employment, the decline totaled 1.3 percent. The drop following the official March 1991 trough date was in marked contrast to the experience during previous recovery periods, when the employment lowpoints were, on average, coincident with the official ending dates of the recessions. The decline in employment during the recession of the early 1990's-either from the official peak and trough or between those for the employment series itself-was mild compared to the 1973-75 and 1981-82 contractions. and was, in fact, one of the smallest on record.

During the NBER-determined period for the 1990-91 recession, several industries experienced their first recessionary employment drops, while others were not as severely affected as in

Table 2. Change in total employment between official and series peaks and troughs associated with recessions by worker age, sex, race, and Hispanic origin, 1948–91

ſIn	percent
1	POLCOLIC

	1990-	·91¹	Prior recession average		1980		1969–70	[1948–49
Characteristic	Number (in thousands)	Percent		1981-82		197375		1960–61	195758	1953-54	
Official peaks and troughs											
Employment, total Adult men Adult women Teenagers Whites Blacks Hispanics	-1,158 -566 -232 -360 -1,319 88 -197	-1.0 9 5 -5.8 -1.3 .7 -2.2	-1.4 -1.8 .4 -5.7 -1.1 -2.6 -1.2	-1.6 -2.4 1.1 -10.2 -1.8 -1.5 -1.6	-1.1 -1.4 .0 -4.0 -1.2 -1.1 7	-1.3 -2.0 .9 -5.5 -1.1 -5.3	-0.1 1 .7 -3.8 .1 -	-0.6 -1.1 1.4 -4.5 5	-2.1 -2.7 -3 -4.4 -1.9	-2.4 -2.3 -2.1 -5.8 -	-2.0 -2.7 1.4 -7.4
Series peaks and troughs]
Employment, total Adult men Adult women Teenagers Whites Blacks Hispanics	-1,811 -736 -324 -1,544 -1,588 -310 -198	-1.5 -1.2 6 -22.5 -1.6 -2.6 -2.2	-2.1 -2.2 -1.9 -11.1 -1.7 -3.7 -1.6	~2.0 -2.6 (²) -24.4 -2.3 -3.2 -2.1	-1.3 -1.8 1 (3) -1.4 -2.1 -1.0	-2.2 -2.8 -2.1 -7.0 -2.1 -5.9	5 5 5 -4.3 5 -	-1.3 -1.3 -1.9 -4.5 8	-3.0 -3.3 9 -9.2 -2.8	-3.8 -2.3 -5.2 -15.4 -	-2.6 -3.1 -2.4 -12.8 -

¹ Series troughs often occurred after 1991.

Note: Selecting peaks and troughs for certain erratic series-teenag-

ers, blacks, and Hispanics—was eased by using 3-month centered moving averages.

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 Hispanics are included in both the white and black population groups.

Dash indicates data not available.

² Employment for adult women did not decline during the 1981–82 recession.

³ Employment for teenagers did not show a distinct trough for the 1980 recession, but instead continued to decrease throughout the recessionary period in 1981 and 1982.

Table 3. Change in unemployment between official and series peaks and troughs associated with recessions by worker age, sex, race, and Hispanic orlgin, 1948-91

[In percent]

	1990-	-91 ¹	Prior recession average	1981–82	1980	1973-75	196970	1960–61	1957–58	1953–54	1948–49
Characteristic	Number (in thousands)	Percent									
Official peaks and troughs											-
Unemployment, total Adult men Adult women Teenagers Whites Blacks Hispanics Series peaks and troughs	1,757 1,030 520 207 1,577 164 176	26.2 33.0 20.9 18.9 32.0 10.9 23.0	73.3 92.3 65.6 44.7 59.3 42.1 42.1	51.8 73.9 41.1 25.1 54.5 42.1 58.3	25.1 40.2 14.8 14.6 26.6 18.9 25.9	81.5 122.8 80.6 33.5 85.8 65.2	69.8 90.5 63.4 51.4 71.0	33.5 34.1 40.4 21.8 35.2 —	82.6 98.2 72.3 52.5 82.6 —	126.9 137.2 132.7 85.5 —	115.1 141.2 79.7 73.4 — —
Unemployment, total	3,063 1,847 1,169 333 2,563 608 488	45.7 62.9 49.4 30.3 53.8 43.2 68.2	87.4 123.9 83.3 55.3 75.8 52.8 80.4	53.3 75.4 87.7 20.4 55.9 86.6 160.8	43.2 80.4 (²) 17.4 47.4 (²) (²)	103.5 157.1 100.4 53.6 109.6 71.7	87.1 147.1 73.6 58.5 91.9	45.9 47.2 58.2 45.6 47.0	102.4 136.5 94.2 72.9 103.1	146.1 172.3 160.6 101.8	117.6 174.8 91.8 72.0 —

Series troughs often occurred after 1991

Note: Selecting peaks and troughs for certain erratic series-teenagers, blacks, and Hispanics-was eased by using 3-month centered moving averages

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 Hispanics are included in both the white and black population groups.

Dash indicates data not available.

the past. Employment in construction and trade decreased at a faster rate than the average for prior recessions, and the finance, insurance, and real estate industry registered its first recessionary decline. Unusual weakness was evident in the services industry, as well. Its employment, which had increased by an average of 2.9 percent during the prior five contractions, edged up by only 0.6 percent in the 1990-91 recession.

In contrast to these worse-than-average performances, mining and transportation and public utilities had milder employment declines during the 1990-91 downturn than their averages of prior recessions. Similarly, manufacturing which often is associated with large job declines during recessions—registered a smaller drop in the 1990-91 recession (3.2 percent) than in any of the prior downturns. Manufacturing employment, however, had been declining for 1-1/2 years prior to the recession start date, and thus had already been scaled back considerably before the official onset of recession. The fact that factory employment then continued to drop off after the official end of the recession, and did not begin to rise until the fourth quarter of 1993, provides strong evidence of an important structural component to this sector's recessionary employment losses. The decrease in factory employment from its prerecession peak in January 1989 to September 1993 was 9.2 percent, slightly smaller than the declines from the series peaks to troughs during the 1973-75 and 1981-82 recessions.

The changes in the mix of industries that had job cutbacks and in the magnitude of the declines in the most recent recession created a somewhat different demographic profile of employment losses than in the past. Employment of adult men fell at half the rate of the average decrease during prior contractions—0.9 versus 1.8 percent. (See table 2.) This reflected both the milder overall decline in employment and the smaller proportion of that drop which occurred in industries with high concentrations of adult men-manufacturing and transportation and public utilities.

In contrast, adult women's employment experienced its first recessionary decline in three decades, edging down 0.5 percent during the 1990-91 contraction. A larger-than-usual proportion of the job cutbacks in the early 1990's occurred in the service-producing industries, where adult women most often work. As the serviceproducing industries make up an ever-growing proportion of employment, and as women continue to make inroads into typically male-dominated industries, future recessionary job losses will most likely continue to affect women.

² This series did not show a distinct peak for the 1980 recession, but instead continued to increase throughout the recessionary period in 1981 and 1982.

Teenage workers accounted for a relatively large share of the employment reductions in the 1990–91 recession, as during all of the prior contractions. During the official span of the recession, employment of 16- to 19-year-olds dropped by 5.8 percent. However, the employment decline for young workers was actually much longer than the NBER-determined period of recession, with levels decreasing from July 1989 to June 1992 by a total of 22.5 percent. The magnitude of this drop was twice that of the average decrease from the series highs to lows associated with prior recessionary periods. The large decline reflects both the greater share of the job cutbacks that occurred in retail trade-the major employer of teenagers-and the shrinking population of teenagers during the 1980's and early 1990's. The early 1990's also were characterized by downsizing of firms and conservative hiring practices, which reduced employment opportunities for young, inexperienced workers.

In the recession of the early 1990's, Hispanics were more severely affected than were blacks, while job cutbacks continued to be relatively mild among whites. The Hispanic employment-to-population ratio decreased 4.3 percentage points between its high and low levels associated with the 1990–91 contraction, compared with 2.9 and 1.5 percentage points for blacks and whites, respectively. The duration of the decline in this ratio was also the longest for Hispanics—totaling nearly 4 years and measuring about twice that for whites and blacks. The particularly severe recession in California in the early 1990's

probably contributed to the large employment losses among Hispanics, because such workers are most highly concentrated in that State.

Unemployment. As did employment, unemployment continued to worsen long after the NBER-designated endpoint of the 1990–91 contraction. The increase in the number of unemployed continued for 15 months past the official ending date and, between July 1990 and June 1992, totaled 46 percent. During the same period, the unemployment rate rose by 2.3 percentage points. Although the 2-year increase in unemployment exceeded the duration associated with all prior recessions, the rise in joblessness, both over the official span of the recession and between the series' lows and highs, was one of the smallest on record. (See tables 3 and 4.)

During the official span of the 1990–91 recession, the proportions of the increase in unemployment attributable to adult men, adult women, and teenagers were about the same as the averages of prior downturns. Adult men continued to have the largest percentage rise in unemployment during both the official span of the recession and between the peak and trough in their unemployment series, while the increase in joblessness was still smallest among teenagers.

Discouragement and underemployment. Increases in the number of discouraged workers (those not looking for work because they feel there are no jobs available, or none for which they would qualify), and in the number of invol-

Table 4. Percentage-point change in the unemployment rate between the official and series peaks and troughs associated with recessions by worker age, sex, race, and Hispanic origin, 1948–91

Characteristic	1990–91 ¹	Prior recession average	1981-82	1980	1973–75	1969–70	1960–61	1957–58	1953–54	1948-49
Official peaks and troughs										
Unemployment rate, total	1.4	3.0	3.6	1.5	3.8	2.4	1.7	3.3	3.3	4.1
Adult men	1.5	3.0	4.1	2.0	3.7	2.0	1.5	3.3	3.0	4.6
Adult women	9.	2.4	2.4	.8	3.5	2.1	1.7	2.7	3.3	2.5
Teenagers	3.2	5.0	5.5	2.6	4.9	5.6	3.2	5.7	6.1	6.7
Whites	1.5	2.5	3.3	1.4	3.5	2.1	1.6	3.0	_	
Blacks	1.0	4.4	5.2	2.3	5.8	_	_	_	_	
Hispanics	1.9	3.7	5.2	2.1	_	_	_	_	-	_
Series peaks and troughs			1					!		
Unemployment rate, total	2.3	3.1	3.3	2.0	4.2	2.6	1.9	3.6	3.4	3.5
Adult men	2.5	3.2	3.9	2.7	4.1	2.5	1.7	3.7	3.2	3.7
Adult women	1.8	2.9	3.5	(²)	3.7	2.2	1.9	2.7	3.4	2.5
Teenagers	6.4	6.4	8.2	(²)	6.8	5.4	3.4	7.3	6.8	6.6
Whites	2.0	2.7	3.1	1.9	4.0	2.5	1.8	3.2		J.0
Blacks	4.1	7.5	8.7	(²)	6.2			<u> </u>	_	_
Hispanics	4.1	7.6	7.6	(²)	J.E					

¹ Series troughs often occurred after 1991.

² This series did not show a distinct peak for the 1980 recession, but instead continued to increase throughout the recessionary period in 1981 and 1982.

Note: Selecting peaks and troughs for all series was eased by using 3-month centered moving averages.

Dash indicates data not available

untary part-time workers (those working part time who would prefer full-time work), can sometimes provide early indications of worsening labor market conditions. About 1 year before the start of the 1980 recession and about 1/2 year before the 1990-91 contraction, the number of discouraged workers began to increase. The recessionary increase in discouragement lasted 4 years during both of those periods (the number of discouraged workers increased continuously during the mild expansion between the 1980 and 1981–82 recessions), vet the rise in the early 1990's was only about one-third of that a decade earlier (52 versus 149 percent).

Similarly, the number of involuntary part-time workers began to increase at least 6 months prior to the start of the 1980, 1981-82, and 1990-91 recessions. 10 Following the contraction of the early 1990's, this series continued to increase for nearly a year, and in fact, did not start to show a definite downward trend until late 1993. In the past, this series has been nearly coincident with the NBER-determined troughs. But, despite this longer-than-usual rise, the number of involuntary part-time workers rose at a slower pace in the early 1990's than the average of prior recession (36 versus 51 percent). The smaller rise in the series for discouraged workers and persons involuntarily working part time during the early 1990's is consistent with the milder characterization of that recessionary period in general. At the same time, the fact that these two series remained on a high plateau long after the recession was over reflects the slow improvement of the labor market following that contraction.

Occupational shifts. During recessions, certain occupations are more prone to job cutbacks than others, largely because they are concentrated in certain industries. Blue-collar workers have generally borne the brunt of recessionary employment declines because more than half of all such workers are in construction and manufacturing, where virtually all of the net employment decline occurred during earlier economic contractions. 11 In contrast, white-collar employment did not decline, on net, during the recessions prior to 1990. (See table 5.) This reflects the fact that the vast majority of white-collar jobs are in service-producing industries, which have posted relatively mild employment declines (or have expanded slightly) during past recessions. Over the 1990–91 downturn, however, the service-producing industries accounted for a larger proportion of the total drop in employment than in the past, and reflecting this shift, there was a decline in white-collar employment.

The broader range of occupations affected by job cutbacks during the 1990-91 recession also

Table 5. Change in total employment and unemployment of whitecollar and blue-collar workers during the official span of recessions, 1960-91

	1990	-91	Prior recession average			
Characteristic	Number (in thousands)	Percent	Number (in thousands)	Percent		
Employment:				4.0		
White-collar	-302 -972	-0.4 -3.1	735 -1,705	1.8 -5.7		
Unemployment: White-collar	604	27.2	555	45.4		
Blue-collar	757	31.8	1,389	64.8		

Note: See text footnote 11 for a definition of white-collar and blue-collar occupations. Data for these white-collar and blue-collar groups are not strictly comparable between the 1990-91 recession and prior ones, due to changes in the ces occupational coding system beginning in 1983.

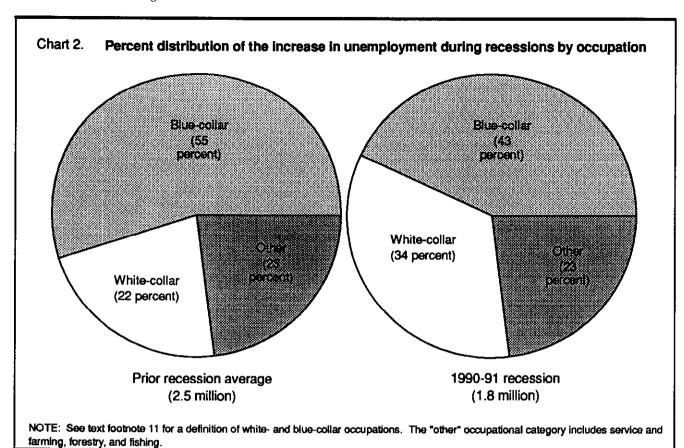
Table 6. Percent change and share of increase in unemployment among job losers during the official span of recessions, 1969-91

Characteristic	1990-911	Prior recession average	1981–82	1980	1973–75	1969–70
Percent change		_				
Total job losers On layoff (expecting	76.3	97.0	87.2	44.2	149.7	107.0
recall)	34.0	129.5	96.4	68.8	247.4	105.5
Other job losers .	95.4	82.6	82.8	30.7	109.0	107.9
Share of increase		}			ı	
On layoff (expecting recall)	13.8	44.4	-35.6	55.2	48.6	38.2
Other job losers	86.2	55.6	64.4	44.8	51.4	61.8
	~~~	50.0			1 - 7	

¹ The number of job losers peaked in June 1992, well past the NBER-designated endpoint of the 1990-91 recession. So, for this analysis, the July 1990-June 1992 period is used for comparison with earlier periods of recessions as defined by NBER.

resulted in a change in the composition of the increase in unemployment. Blue-collar workers accounted for 43 percent of the increase in unemployment, while the proportion attributable to white-collar workers was 34 percent. (The remaining increase took place among workers who had last held jobs in service occupations or in farming, forestry, or fishing.) During prior recessions, in contrast, more than half of the increase in unemployment was attributable to workers who had last held blue-collar jobs, while white-collar unemployment comprised only about 20 percent of the rise. (See chart 2.) It should be noted that this shift towards a more "white-collar recession" partly reflects the long-term shift of employment itself in the same direction.

Chance of recall to a job decreases. The total number of unemployed job losers rose sharply during the official period of the 1990-91 reces-



sion, and then continued to increase well past the March 1991 end date, peaking in June 1992. Nearly all of the net increase in unemployed job losers during the post-NBER recessionary period was attributable to a rise in the number of job losers not expecting to be recalled to their job ("permanent" job losers)-many of them the obvious victims of the "downsizing" of U.S. firms. The other component of job losers—those on layoff (expecting recall)-reached its most recent peak in February 1991, nearly coincident with the NBER-determined recession end date. The rise in unemployed permanent job losers beyond the official end of the recession ran counter to the experience during prior downturns, when the turning points were more coincident with the official trough dates.

The rate of increase in the number of permanent job losers between July 1990 and June 1992 was about the same as the average for prior downturns. 12 This is in contrast to many other labor market series, for which changes during the 1990-91 recessionary period were mild in comparison to prior ones. However, the number of unemployed job losers on layoff increased at a much slower pace than in earlier recessions.¹³ Reflecting this smaller increase in job losers on

layoff, the proportion of the increase in unemployed job losers that consisted of those expecting recall was much smaller in the downturn in the early 1990's than the prior recession average (14 versus 44 percent). It follows that permanent job losers made up a much larger share of the increase (86 versus 56 percent). (See table 6.)

One possible explanation for the relatively small increase in the number of job losers on layoff in the 1990-91 recession is that there was relatively less job loss in industries that historically have used temporary layoffs-most notably manufacturing, where highly skilled workers are difficult to replace. And even within manufacturing, unemployed job losers were more likely to have lost their jobs permanently during the most recent recession than in past downturns, reflecting restructuring and technological advances that were taking place in factories.

THE LONGEST PEACETIME EXPANSION since World War II ended in mid-1990. The economic contraction that followed-which officially lasted from July 1990 to March 1991-was milder than prior recessions, but many labor market measures did not show signs of improvement until well after the official end of the downturn. Job loss was more widespread across occupational and industry groups in the early 1990's with net recessionary job losses occurring for the first time among white-collar workers and those in finance, insurance, and real estate. Reflecting the shift in occupations and industries affected during the 1990-91 downturn,

adult women suffered their first recessionary job cutback in three decades, while men experienced one of their smallest employment declines on record. And, among the unemployed who lost their last job, a smaller proportion expected to return to the same job when the economy improved than was the case in the past.

## Footnotes

1 For a detailed explanation of the procedure used in determining the starting and ending points of recessions, see Geoffrey H. Moore, Business Cycles, Inflation, and Forecasting (Cambridge, MA, Ballinger Publishing Co., 1983), pp. 3-10.

² The Current Population Survey (CPS) is a household survey, conducted monthly for the Bureau of Labor Statistics by the Bureau of the Census, that collects information about the U.S. labor force. The data in this article reflect the questionnaire and collection procedures used prior to the implementation of the redesign of the cps in January 1994. For more information on the crs redesign, see the September 1993 Monthly Labor Review; and Sharon R. Cohany and others, "Revisions in the Current Population Survey Effective January 1994," Employment and Earnings, February 1994, pp. 13-37.

³ See Christopher J. Singleton, "Industry employment and the 1990-91 recession," Monthly Labor Review, July 1993, pp. 15-25; and William Goodman, Stephen Antczak, and Laura Freeman, "Women and jobs in recessions: 1969-92," Monthly Labor Review, July 1993, pp. 26-35.

⁴ The dates for the nine recessions that have occurred since World War II, as set by the National Bureau of Economic Research, are: November 1948 to October 1949, July 1953 to May 1954, August 1957 to April 1958, April 1960 to February 1961, December 1969 to November 1970, November 1973 to March 1975, January 1980 to July 1980, July 1981 to November 1982, and July 1990 to March 1991.

⁵ For a detailed discussion of trends in health services employment during the past decade, see David R. H. Hiles, "Health services: the real job machine," Monthly Labor Review, November 1992, pp. 3-16.

⁶ See Goodman and others, "Women and jobs in recessions: 1969-92."

⁷ Data in this article that refer to series peaks and troughs for teenagers reflect 3-month centered moving averages. These averages were used to smooth out the large monthto-month variations that occur in series with small sample

8 The BLS data by race and ethnicity have different historical periods. Data are available for whites from 1954; for blacks, from 1972; and, for Hispanics, from 1980. As a result, there are varying numbers of recessions for which data are available for these groups. For comparison purposes, only data for the three most recent recessions are analyzed. Data in this article that refer to series peaks and troughs for

blacks and Hispanics reflect 3-month centered moving averages. These averages were used to smooth out the large month-to-month variations that occur in series with small sample sizes.

9 The data for the 1990-91 recession exclude the temporary census workers hired and then dismissed in 1990. For details on changes in nonfarm employment due to the temporary census workers, see William C. Goodman, "Massive Census Hiring Affected Nonfarm Payroll Employment Picture in 1990." Employment and Earnings, February 1991, p. 7. For a detailed discussion of changes in nonfarm employment during recessions by industry, see Singleton, "Industry employment and the 1990-91 recession.

10 Data in this article that refer to series peaks and troughs for the number of involuntary part-time workers reflect 3month centered moving averages. These averages were used to smooth out the series' large month-to-month variations.

11 The CPS no longer uses the terms "white-collar" and "blue-collar" as official occupational classifications; starting in 1983, these terms were replaced with more specific job titles. For purposes of comparison with prior years, however, this analysis combines the current "managerial and professional specialty" and "technical, sales, and administrative support" categories to approximate the white-collar group. The current "precision production, craft, and repair" and "operators, fabricators, and laborers" categories approximate the former blue-collar group. Because of the change in the CPS occupational coding system in 1983, the data for the 1990-91 recession are not strictly comparable with those for prior contractions. For a more detailed analysis of the "white-collar recession" debate, see Randall W. Eberts and Erica L. Groshen, "Is this really a 'white-collar recession'?" Economic Commentary (Federal Reserve Bank of Cleveland), Mar. 15, 1991.

12 For comparisons of unemployed job loser data between recessions, the July 1990-to-June 1992 period is used to represent the 1990-91 downturn, because the number of such workers increased continuously during that period. In prior recessions, the peak in the number of job losers was more coincident with the official endpoints. See also, "Recent job losers less likely to expect recall." Issues in Labor Statistics (Bureau of Labor Statistics, July 1992).

13 If the NBER-determined period for the 1990-91 contraction is used to make comparisons with prior official recessionary periods, the percentage increase in unemployed job losers on layoff would still be smaller than the prior recession average (43 versus 130 percent).