Worker displacement: a decade of change

During the early 1990's, older workers and those in service-producing industries and white-collar occupations were more likely to lose their jobs than were their counterparts a decade earlier

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During 1991 and 1992, about 5-1/2 million workers permanently lost jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished. About half—2.8 million—of those displaced workers were "long-tenured workers," that is, they had lost jobs they had held for 3 years or more. Reflecting the poor labor market conditions associated with the recession in the early 1990's, the number of workers displaced during 1991 and 1992 was greater than the number who had lost jobs in the prior 2 years.[1] In fact, the number displaced was even greater in the early 1990's than a decade earlier, when the United States was in a much deeper recession. However, the proportion of all long-tenured workers who were displaced from their jobs—the displacement rate—was about the same in the 1991–92 period, 3.8 percent, as it was during the 1981–82 period.[2]

Despite the similar rates of displacement in the early 1980's and the early 1990's, there were several differences in the extent and nature of displacement. In the more recent period, for example, job loss was more common among workers in service-producing industries and white-collar occupations, and also among workers who lived in the Northeast and West than it was in the early eighties. In addition, the reemployment rate—the proportion of all displaced workers who had found new jobs by the time they were surveyed—was higher for those who were displaced in 1991 and 1992 than for those who lost jobs a decade earlier.

This article examines these, and other, differences in more detail by comparing the displacement experience of workers who lost jobs in the early 1990's to those of workers who were displaced a decade earlier. Two years of data from each of the displaced worker surveys—which have been conducted biennially since 1984—were used to construct a time series that starts with the 1981–82 period (from the 1984 survey) and ends with the 1991–92 period (from the 1994 survey).[3] (See appendix A for a description of the displaced worker survey.) The focus of this article, for the most part, is on long-tenured workers. Inclusion of workers with fewer than 3 years of tenure increases the likelihood of capturing some job loss that was the result of a "bad fit" between employee and employer and not the result of labor market conditions. The regional analysis, however, includes all displaced workers because of data limitations discussed later.

Industry and occupational shifts

Between the early 1980's and the early 1990's, employment, in general, and displacements became less concentrated in manufacturing and blue-collar jobs and more broadly distributed

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across industries and occupations. The proportion of the displaced workers who were reemployed at the time they were surveyed rose during the same period for workers who lost jobs in nearly all of the major industry and occupational groups.

During the 1981–82 period, more than half of all displaced workers had lost manufacturing jobs. This economic sector accounted for about one-quarter of total employment at that time. The displacement rate for manufacturing, therefore, was quite a bit higher than that for the nonmanufacturing industries, 8.2 versus 3.5 percent. Over the next several years, as the economy recovered from back-to-back recessions, the risk of job loss decreased. By 1987–88, the displace-

Table 1. **Displacement rates[1] by industry, class of worker, and occupation of lost job, 1981–92**

[In percent]

Characteristic	1981–82	1983–84	1985–86	1987–88	1989–90	1991–92
Total, 20 years and older	3.9	3.1	3.1	2.4	3.1	3.8
Industry and class of worker						
Nonagricultural private wage and salary workers	5.3	4.2	4.3	3.2	4.1	5.2
Mining	13.6	9.2	17.8	6.1	10.0	7.6
Construction	7.6	5.5	7.0	4.2	5.9	7.9
Manufacturing	8.2	6.5	5.2	3.9	5.0	6.9
Durable goods	9.3	7.0	5.8	4.0	5.1	8.1
Nondurable goods	6.4	5.6	4.1	3.7	4.9	5.2
Transportation and public utilities	4.1	3.8	3.1	1.8	3.6	4.1
Wholesale and retail trade	3.7	3.1	4.3	3.6	3.9	4.5
Finance, insurance, and real estate	1.4	1.3	3.5	2.8	3.5	5.6
Services	2.3	2.1	2.3	1.7	2.1	2.8
Agricultural wage and salary workers	5.4	9.7	4.1	2.5	3.2	4.0
Government workers	1.2	.6	.4	.4	.4	1.1
Self-employed and unpaid family workers[2]	0.2	.1	([3])	.3	.2	([3])
Occupation						
White-collar occupations[4]	2.6	2.1	2.6	2.1	2.7	3.6
Managerial and professional specialty	2.1	1.8	2.1	1.8	2.3	3.5
Executive, administrative, and managerial	2.5	2.4	2.8	2.5	3.4	4.7
Professional specialty	1.7	1.2	1.4	1.1	1.3	2.4
Technical, sales, and administrative support	3.0	2.4	3.1	2.5	3.1	3.7
Technicians and related support	3.3	2.9	3.0	2.2	3.2	3.7
Sales occupations	3.7	2.8	3.2	2.7	2.9	3.6
Administrative support, including clerical	2.5	2.0	3.1	2.4	3.2	3.8

Table 2. **Displacement rates[1] by age, sex, race, and Hispanic origin, 1981–92**

[In percent]

Age, sex, race, and Hispanic origin	1981–82	1983–84	1985–86	1987–88	1989–90	1991–92
TOTAL						
Total, 20 years and older	3.9	3.1	3.1	2.4	3.1	3.8
20 to 24 years	4.0	2.0	1.8	2.0	2.2	2.0
25 to 54 years	4.0	3.3	3.3	2.5	3.1	3.9
25 to 34 years	5.0	3.9	3.5	2.5	3.1	3.8
35 to 44 years	3.8	3.1	3.3	2.7	3.2	3.9
45 to 54 years	3.0	2.6	3.0	2.2	3.1	3.8
55 years and older	3.6	3.1	2.9	2.2	3.1	4.3
55 to 64 years	3.8	3.1	3.0	2.3	3.3	4.5
65 years and older	3.2	2.9	2.3	1.9	2.4	3.8
Men, 20 years and older	4.3	3.2	3.3	2.4	3.2	4.1
Women, 20 years and older	3.4	2.9	2.8	2.4	2.8	3.5
White						
Total, 20 years and older	3.8	3.1	3.1	2.4	3.0	3.8
Men	4.2	3.2	3.3	2.4	3.2	4.1
Women	3.3	2.9	2.8	2.4	2.8	3.5
Black						
Total, 20 years and older	4.8	3.9	3.4	2.0	3.5	3.8
Men	5.3	4.0	4.1	1.6	3.9	3.9
Women	4.3	3.8	2.6	2.4	3.2	3.7
Hispanic origin						
Total, 20 years and older	4.3	3.9	3.9	2.9	4.3	4.8
Men	4.3	3.9	4.1	2.6	4.1	5.4
Women	4.4	3.8	3.5	3.3	4.7	3.9

[1] See text footnote 2 for an explanation of the displacement rate calculation.

NOTE: Data for the 1991–92 period (collected in the February 1994 survey) are not strictly comparable to those for prior years. See appendix A.

ment rate had dropped to 3.9 percent for factory workers and 2.8 percent for nonfactory workers. (See table 1.)

With the onset of recession in the early 1990's, the incidence of job loss increased once again, with manufacturing workers being among the hardest hit. Their displacement rate rose to 6.9 percent in the 1991–92 period. Although this rate was still much higher than that for all other workers (4.5 percent), it was not as high as it had been in the early 1980's.

In contrast to the trends in manufacturing, the incidence of displacement was higher in 1991–92 than in the 1981–82 period for workers in several of the nonmanufacturing industries. Those in the finance, insurance, and real estate industry had the largest rise in the probability of job loss, as their displacement rate rose from 1.4 percent in the early 1980's—well below that for all industries—to a higher-than-average rate of 5.6 percent in the most recent period. The services and trade industries also had increases in displacement rates between the two periods. Despite the rising displacement rate in services—which includes establishments engaged in a wide variety of tasks, from computer service firms to automobile repair shops to doctors' offices to beauty shops—these businesses still had the lowest rate (2.8 percent) of all of the major industries in the early 1990's. The rates for the construction and the transportation and public utilities industries were virtually the same in both periods under study.

Manufacturing workers also had the lowest reemployment rate during the early 1990's. At the time the survey was conducted in early 1994, 72 percent of displaced manufacturing workers had found a new job, compared with 77 percent of nonmanufacturing workers. Both percentages were higher than those posted a decade earlier—63 and 64 percent, respectively—when factory workers were just as likely as those displaced from other industries to have found new jobs.

As with industries, displacement was less concentrated among the occupational groups in the early 1990's than in the early 1980's. The incidence of displacement fell for blue-collar workers over the past decade, reflecting, in part, the decline in the rate of displacement in the manufacturing sector.[4] In 1981–82, 58 percent of all

displaced workers had last worked in a blue-collar job. That share dropped to 36 percent in the 1991–92 period. Some of this decline reflects a decrease in the proportion of all workers who held blue-collar jobs, but it also resulted from a smaller proportion of these workers losing their jobs. As a result, the displacement rate for blue-collar workers was much lower in 1991–92 than in 1981–82, 5.2 versus 7.3 percent. The 5.2-percent rate was still higher, however, than that for all workers.

By the early 1990's, job loss had become more common among white-collar workers than it had been a decade earlier. More than half of all displaced workers had last held a white-collar job in the 1991–92 period, compared with about one-third in 1981–82. Reflecting this shift, the displacement rate for white-collar workers increased from 2.6 to 3.6 percent; however, even this higher figure was low relative to that for blue-collar workers. Following job loss, workers displaced from white-collar jobs were still slightly more likely to have found new work than were those displaced from blue-collar occupations—78 versus 72 percent.

Changing demographics

Displacement was more common in the early 1990's than the early 1980's for older workers and Hispanics, while remaining about the same for women and whites. These changes, in part, mirrored shifts in the U.S. labor market; they also resulted from shifts in the industries that had high concentrations of job loss and from changing proclivities of employers.

In the early 1980's, displaced workers were, on average, considerably younger than the popu-

Table 3. **Displaced workers by age, sex, race, Hispanic origin, and employment status in February 1994**
[Numbers in thousands]

Age, sex, race, and Hispanic origin	Displaced workers[1]	Percent distribution of employment status in February 1994		
		Employed	Unemployed	Not in the labor force
TOTAL				
Total, 20 years and older	2,768	75.3	11.1	13.6
20 to 24 years	64	(2)	(2)	(2)
25 to 54 years	2,185	80.6	10.7	8.7
25 to 34 years	688	83.9	9.2	6.9
35 to 44 years	875	80.3	10.6	9.1
45 to 54 years	622	77.4	12.5	10.1
55 years and older	520	52.1	12.7	35.1
55 to 64 years	415	60.5	14.7	24.8
65 years and older	106	18.9	5.4	75.7
Men, 20 years and older	1,679	79.5	11.4	9.1
Women, 20 years and older	1,089	68.8	10.5	20.7
White				
Total, 20 years and older	2,377	76.4	10.4	13.3
Men	1,471	80.7	10.6	8.7
Women	907	69.4	9.9	20.7
Black				
Total, 20 years and older	280	66.6	18.0	15.4
Men	143	68.2	20.7	11.1
Women	137	64.9	15.1	20.0
Hispanic origin				
Total, 20 years and older	222	64.9	18.6	16.5
Men	150	67.4	22.0	10.6
Women	71	(2)	(2)	(2)

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1991 and December 1992 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

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.

lation of long-tenured workers.[5] This age gap narrowed over the ensuing decade, as workers aged 35 and older made up a larger proportion of the displaced. Compared with the situation 10 years earlier, displacement in the early 1990's was more severe for older workers and less severe for those under age 35. (See table 2.)

The race and ethnic composition of the displaced also changed over the decade. In the 1981–82 period, blacks and Hispanics were disproportionately represented among the job losers, as their displacement rates of 4.8 and 4.3 percent, respectively, were higher than that of whites (3.8 percent). A decade later, blacks had the same rate of job loss as whites—3.8 percent—but the rate for Hispanics remained higher, at 4.8 percent. Hispanics also had the smallest proportion reemployed when surveyed in 1994; a decade earlier, in contrast, displaced blacks were the least likely to be working again at the time they were surveyed, as shown in the following tabulation. (See also table 3.)

	Reemployment rates	
	1981–82	*1991–92*
Whites	66.9	76.4
Blacks	46.4	66.6
Hispanics[6]	55.7	64.9

Women accounted for about 4 in 10 displaced workers in the 1991–92 period; this was slightly higher than in the early 1980's, when women made up just over 3 in 10. Their presence in the work force also rose during that period and, as a result, their displacement rate was essentially the same in the 1981–82 and 1991–92 periods—3.5 percent. Their rate continued to be lower than that for men (4.1 percent in the early 1990's),

Table 4. **Median weekly earnings of displaced full-time wage and salary workers on their lost jobs and on jobs held in February 1994 by age, sex, race, and Hispanic origin**

[Numbers in thousands]

Age, sex, race, and Hispanic origin	Displaced full-time wage and salary workers[1]	Reemployed in full-time wage and salary jobs in February 1994							
		Total	Earnings relative to those of lost job				Median weekly earnings on:[2]		
			20 percent or more below	Below, but within 20 percent	Equal or above, but within 20 percent	20 percent or more above	Lost job	Job held in February 1994	Percent change
TOTAL									
Total, 20 years and older	2,519	1,515	31.2	16.0	25.5	27.4	$515	$473	–8.2
20 to 24 years	54	32	(3)	(3)	(3)	(3)	(3)	(3)	(3)
25 to 54 years	2,000	1,317	30.1	16.6	25.4	27.9	518	477	–7.9
25 to 34 years	606	424	20.8	17.0	24.8	37.7	432	441	2.1
35 to 44 years	818	556	32.6	17.6	28.6	21.4	566	505	–10.8
45 to 54 years	576	336	38.1	14.6	20.8	26.2	546	464	–15.0
55 to 64 years	392	162	38.9	11.1	27.2	22.2	568	488	–14.1
65 years and older	74	5	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Men, 20 years and older	1,595	1,029	30.8	14.9	27.2	27.0	576	523	–9.2
Women, 20 years and older	924	486	31.9	18.3	21.8	28.0	413	384	–7.0
White									
Total, 20 years and older	2,172	1,315	31.3	16.5	25.5	26.7	530	484	–8.7
Men	1,400	908	30.8	15.2	27.5	26.4	589	534	–9.3
Women	771	407	32.2	19.4	20.9	27.3	425	388	–8.7
Black									
Total, 20 years and older	246	136	30.9	13.2	30.1	25.7	415	398	–4.1
Men	132	78	28.2	11.5	30.8	29.5	488	451	–7.6
Women	114	58	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Hispanic origin									
Total, 20 years and older	198	101	38.6	14.9	17.8	27.7	409	375	–8.3
Men	141	76	46.1	10.5	15.8	27.6	456	395	–13.4
Women	56	25	(3)	(3)	(3)	(3)	(3)	(3)	(3)

[1] Data refer to persons who had 3 or more years of tenure on a full-time wage and salary job they had lost or left between January 1991 and December 1992 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] See appendix B for the standard errors on earnings on lost job and on the job held in February 1994.

[3] Data not shown where base is less than 75,000.

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.

reflecting, in part, their high concentration in services, which has a lower-than-average rate of job loss. Moreover, men more often work in industries that have higher-than-average incidents of displacement, such as construction and manufacturing.

Earnings: Pre- and postdisplacement

Some displaced workers drop out of the labor market after losing their jobs, while others look for work unsuccessfully. Still, many do find new work, but getting reemployed in jobs that pay equal or higher wages does not occur with great frequency.

About three-quarters of those displaced from full-time jobs in 1991 and 1992 had found new jobs by the time they were surveyed in 1994. As shown in chart 1, the proportion who were again employed in full-time jobs that paid equal or higher wages was less than one-third of the total. Many of the rest who found new work were employed with lower pay, while others were working in their own business or as unpaid family workers. More than 1 in 10 displaced workers had left the labor force by the time they were surveyed and a similar share was unemployed.

Median weekly earnings on jobs lost in 1991 and 1992 were $515. At the time of the survey in early 1994, the median was a slightly lower $473, a decline of 8 percent.[7] (These data are limited to median weekly earnings on full-time wage and salary jobs, both with respect to the lost job and the new one.) Earnings losses between the lost and current job were slightly smaller in 1987–88 and 1989–90 but had been as high as 14 percent in the early and mid-1980's. (See table 4. Information on the standard errors of earnings on both the lost jobs and those held in February 1994 are presented in appendix B.)

In nearly all of the age groupings, earnings were unchanged between the lost and new jobs in the early 1990's (at the 90-percent confidence interval). Earnings losses did occur for workers 65 years and older, however. This reflects the fact that many of these workers had relatively high pay to begin with, due, for some, to their lengthy experience with their prior employers. Such firm-specific human capital would not necessarily bring a premium wage with a new employer.

The decline in earnings between the lost and current job was slightly greater among men (9 percent) than women (7 percent). But men were still better off in several ways. For one, they continued to have higher pay on the jobs held in February 1994. Furthermore, men displaced from full-time wage and salary jobs were more likely than their female counterparts to be reemployed

Chart 1. Distribution of displaced workers who lost full-time wage and salary jobs between January 1991 and December 1992, by labor force status in February 1994

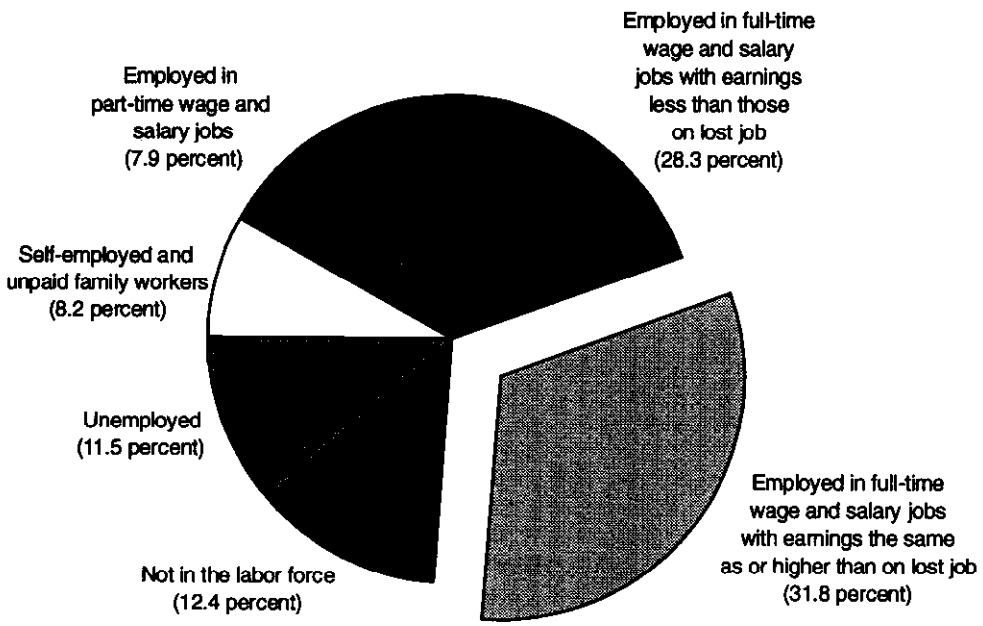

Table 5. **Median weekly earnings of displaced full-time wage and salary workers on their lost jobs and on jobs held in February 1994 by industry and class of worker of lost job**

[Numbers in thousands]

Industry and class of worker of lost job	Displaced full-time wage and salary workers[1]	Reemployed in full-time wage and salary jobs in February 1994							
		Total	Earnings relative to those of lost job				Median weekly earnings on:[2]		
			20 percent or more below	Below, but within 20 percent	Equal or above, but within 20 percent	20 percent or more above	Lost job	Job held in February 1994	Percent change
Total, 20 years and older	2,519	1,515	31.2	16.0	25.5	27.4	$515	$473	–8.2
Nonagricultural private wage and salary workers	2,353	1,412	32.1	15.7	25.1	27.1	519	473	–8.9
Mining	36	26	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Construction	230	130	40.8	13.1	30.0	16.9	641	537	–16.2
Manufacturing	909	556	32.6	18.3	23.2	25.7	494	440	–10.9
Durable goods	643	393	36.4	17.3	23.4	23.2	564	473	–16.1
Nondurable goods	266	163	23.3	20.9	22.7	32.5	351	377	7.4
Transportation and public utilities	168	120	39.2	8.3	21.7	30.0	698	580	–16.9
Transportation	110	79	39.2	5.1	21.5	34.2	640	525	–18.0
Communications and other public utilities	58	40	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Wholesale and retail trade	403	250	28.4	15.6	22.8	33.2	450	432	–4.0
Wholesale trade	158	104	26.0	18.3	20.2	35.6	495	480	–3.0
Retail trade	245	145	30.3	13.1	24.8	31.7	408	398	–2.5
Finance, insurance, and real estate	223	137	27.7	16.8	32.1	23.4	568	524	–7.7
Services	383	194	25.8	14.9	26.3	32.5	474	465	–1.9
Professional services	187	102	22.5	17.6	32.4	27.5	531	490	–7.7
Other services	187	89	29.2	12.4	19.1	39.3	426	458	7.5
Agricultural wage and salary workers	28	15	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Government workers	126	79	21.5	20.3	34.2	25.3	508	464	–8.7

[1] Data refer to persons who had 3 or more years of tenure on a full-time wage and salary job they had lost or left between January 1991 and December 1992 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] See appendix B for the standard errors on earnings on lost job and on the job held in February 1994.

[3] Data not shown where base is less than 75,000.

in another full-time job and were less likely to have found a new job working part time (less than 35 hours a week).

Median earnings dropped for white displaced workers between the lost and new job in the early 1990's, while they were about the same on both jobs for blacks and Hispanics (at the 90-percent confidence interval). Displaced whites, however, still had much higher weekly earnings ($484) in February 1994 than did either blacks ($398) or Hispanics ($375), and they were the most likely to be employed again in full-time jobs.

Earnings losses for workers who were displaced in the 1981–82 period occurred within the same worker groups as in the early 1990's. (The estimates are accurate within the 90-percent confidence interval.) Earnings were lower on the new job than on the job lost in 1981 and 1982 for men and whites, while they were essentially the same on both jobs for women, blacks, and Hispanics. Displaced workers aged 65 and older also had earnings losses between the lost and new job, while those in the younger age groups had no change in their earnings.

Workers who lost jobs in the construction industry in the early 1990's had lower earnings on their postdisplacement jobs than on their lost jobs. Although their earnings had dropped 16 percent, construction workers were still reemployed with relatively high pay. Workers displaced from other industries, in contrast, had no change in their earnings between the lost and new job (at the 90-percent confidence interval). As a result, workers displaced from relatively low-wage industries were often working again in low-paying jobs, and those who lost high-paying jobs were typically reemployed with high pay. (See table 5.) In the early 1980's, workers displaced from manufacturing had a drop in their earnings, while those who lost jobs in all other industries had similar earnings on both jobs.

Health insurance coverage

The share of displaced workers who had received health insurance from their employers prior to losing their jobs has decreased during the past decade. In contrast, the proportion of the previ-

Table 6. Percent distribution of displaced workers[1] by health insurance coverage on lost job and when they were surveyed, 1981–92

[Numbers in thousands]

Characteristic	1981–82	1983–84	1985–86	1987–88	1989–90	1991–92
Total, 20 years and older[1]	2,362	1,920	1,995	1,622	2,192	2,768
Included in a group plan on lost job	1,918	1,447	1,527	1,160	1,664	1,980
Covered when surveyed[2]	62.5	66.7	71.6	76.7	72.7	75.1
Not covered when surveyed	35.4	32.2	27.8	22.3	26.5	24.4
Not included in a group plan on lost job	410	451	447	396	498	779
Covered when surveyed[2]	44.6	47.5	47.7	52.5	46.8	57.3
Not covered when surveyed	54.6	49.4	52.1	45.5	52.4	42.5

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Includes coverage from any source other than medicare or medicaid.

NOTE: Detail will not sum to totals due to nonresponses and "Don't know" responses to questions on past and/or current health insurance coverage. See text footnote 8 for a description of the questions asked to obtain these data. Data for the 1991–92 period (collected in the February 1994 survey) are not strictly comparable to those for prior years. See appendix A.

Table 7. Percent distribution of displaced workers and total employment by census region and division, 1981–82 and 1991–92

[Numbers in thousands]

Census designation	1981–82			1991–92		
	Displaced workers[1]	Employed[2]	Displacement rate[3]	Displaced workers[1]	Employed[2]	Displacement rate[3]
Total, 20 years and older	5,282	93,075	5.7	5,351	111,724	4.8
Northeast	16.5	21.6	4.3	22.6	20.3	5.3
New England	4.4	5.8	4.2	6.8	5.5	5.9
Middle Atlantic	12.1	15.7	4.4	15.9	14.7	5.2
Midwest	29.5	25.5	6.6	20.4	24.6	4.0
East North Central	21.5	17.7	6.9	14.8	17.0	4.2
West North Central	8.1	7.8	5.9	5.7	7.6	3.6
South	32.5	33.1	5.6	31.4	34.0	4.4
South Atlantic	12.3	16.5	4.3	17.0	17.8	4.6
East South Central	7.8	5.9	7.5	5.2	5.7	4.4
West South Central	12.3	10.7	6.5	9.2	10.5	4.2
West	21.5	19.8	6.2	25.5	21.1	5.8
Mountain	6.1	5.2	6.7	5.6	5.4	4.9
Pacific	15.4	14.6	6.0	19.9	15.7	6.1

[1] Data refer to all persons (regardless of years of tenure on lost job) who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data refer to 2-year averages of employed persons.

[3] See text footnote 2 for an explanation of the displacement rate calculation.

NOTE: Detail may not sum to totals due to rounding. For a listing of the States that compose the census regions and divisions see text footnote 11. Data for the 1991–92 period (collected in the February 1994 survey) are not strictly comparable to those for prior years. See appendix A.

ously covered displaced workers who were insured again at the time they were surveyed was higher in the early 1990's than it was in the early 1980's.

About 72 percent of persons who lost their jobs during the 1991–92 period had health insurance coverage under their former employers' plans. By February 1994, only about three-quarters of these previously covered displaced workers were again covered by a group health insurance plan other than medicare or medicaid.[8] A decade earlier, a smaller proportion—less than two-thirds—of those who had been covered on their lost jobs were covered again when surveyed, at least partly because reemployment rates were lower. (See table 6.)

Postdisplacement health insurance coverage, of course, was most common for those who were reemployed when surveyed. Nearly 82 percent of those who had received coverage from their prior employer and were working again in February 1994 were included in a group health insurance plan. This was twice the proportion among those unemployed at the time of the survey. For the displaced who were no longer in the labor force in 1994, a fairly high share—62 per-

cent—were covered by a group plan. The latter two groups of displaced workers could have been receiving coverage from any number of sources—including their prior employer, a spouse's employer, or a private insurer.[9]

Among the race and ethnic groups, about 7 in 10 of both white and black displaced workers had been included in a group health insurance plan on the job they lost during the 1991–92 period. After being displaced, the proportion of blacks who were covered again was slightly lower than that for whites. Hispanics were the least likely to be covered either prior to, or after, being displaced, as shown in the following tabulation:

	White	*Black*	*Hispanic*
Percent of displaced workers who had health insurance coverage on their lost jobs	71.8	71.1	53.6
Of those who had coverage on lost job, percent who were covered again in February 1994	76.3	65.3	58.8

Regional shifts in displacement

Displacement rates were the highest in the Northeast, particularly in New England, and in the West in the early 1990's. This was in contrast to a decade earlier, when workers in the Midwest were at the greatest risk of losing their jobs.

During the 1991–92 period, the rate of displacement for workers with any number of years of tenure on their lost job was 4.8 percent.[10] Workers who lived in the Northeast and West had higher-than-average displacement rates, while those in the Midwest were at the lowest risk.[11] A decade earlier, in contrast, when job loss was more concentrated among factory workers, the Midwest had the highest rate of displacement. Workers in these "rust-belt" States had such high rates of job loss due to restructuring in manufacturing resulting from decreased demand from U.S. consumers during the recessions of the early 1980's and from increased foreign competition. (See table 7.)

Finding work after being displaced in the 1991–92 period proved to be the most challenging in the Northeast. The reemployment rate in that region, at 68 percent, was much lower than that for the United States as a whole (75 percent). Not surprisingly, the West also had a lower-than-average rate of reemployment, while the Midwest and South regions had higher rates. Reflecting perhaps the difficult labor market in the Northeast, that region also had the largest share of displaced workers who had dropped out of the labor force by early 1994.

In nearly every industry, displacement rates in the Northeast and West were higher in the 1991–92 period than they were in the 1981–82 period. Job loss rose the most for workers displaced from construction. In fact, in the early 1990's, the displacement rate for these workers in the Northeast and West was about twice that for all workers in those regions. In manufacturing, in contrast, the rates of job loss were about the same in both periods in the two regions.

IN SUMMARY, during the 1991–92 period, about 2.8 million workers were displaced from long-held jobs. This was about 3.8 percent of all workers who were employed for 3 years or more. Reflecting the deteriorating labor market conditions during that time, the rate of job loss was higher than in the prior 2-year period and was about the same as in the early 1980's, when the U.S. economy was also in recession. There were, however, several underlying differences in displacement between the early 1980's and the early 1990's, including a higher incidence of job loss in the 1990's among service-producing industries, white-collar occupations, and older workers. Job loss was also more concentrated in the Northeast and West in the 1991–92 period than in 1981–82, when the Midwest had the highest rate of displacement. □

Footnotes

[1] The 1989–90 period included the first part of the 1990–91 recession, which officially lasted from July 1990 to March 1991. However, the labor markets continued to deteriorate for more than a year following the end date, and, as a result, the 1991–92 period had a higher number, and rate, of displacement than did the prior 2-year period.

[2] Displacement rates are calculated by dividing the number of displaced workers in a specified worker group by a tenure-adjusted, 2-year average estimate of employment for the same worker group. Employment estimates for each year were adjusted, using job-tenure data from January 1983, 1987, and 1991 CPS supplements, to include only those workers with 3 years of tenure or more. A 2-year average was then computed using those adjusted employment estimates.

[3] Data on job loss that occurred in years 4 and 5 of the reference periods of the surveys conducted between 1984 and 1992 were dropped from the analysis due to uncertainty about the quality of the data because of recall bias. For information on recall bias, see Nancy A. Mathiowetz, "Autobiographical Memory and the Validity of Survey Data: Implications for the Design of the Panel Study of Income Dynamics," Paper prepared for the Panel Study of Income Dynamics, 1994. Data on displacements that reportedly occurred in the year immediately preceding the survey date

also were not used in this analysis. These estimates have been so large, relative to other years in the reference period, that it suggests some of those job losses may, in time, prove to be only temporary. The prior 2 years, then, seem to provide the most "reasonable" data.

[4] The analysis here defines the blue-collar occupation as the combination of the "precision production, craft, and repair" and "operators, fabricators, and laborers" categories; the "managerial and professional specialty" and "technical, sales, and administrative support" categories make up the white-collar occupation.

[5] The median age of workers 20 years and older with 3 or more years of tenure on their job in January 1983 was 41.6 years; in January 1991, it was not much different, at 41.4 years. In contrast, the median age of displaced workers in the 1981–82 period was 38.8 years and in the 1991–92 period was 42.2 years. These medians were calculated using linear interpolation of the 10-year age interval that included the median.

[6] Although there is a positive numerical change in the reemployment rate for Hispanics between the 1981–82 and 1991–92 periods, it is not statistically significant at the 90-percent confidence interval.

[7] This change does not entirely represent the difference between earnings on the lost and new job as the data are not adjusted for inflation. Also, if the workers had not been displaced from their jobs, their earnings might have actually been higher due to pay raises. It should be noted that, although overall median weekly earnings dropped between the lost job and the one held in 1994, about half of the displaced workers who were reemployed in February 1994 had earnings that were the same as, or higher than, those on their lost job. This indicates that the dollar amount of the *decreases* in earnings was larger than the size of the *increases*.

[8] Respondents were first asked, "Were/was .... included in a group health insurance plan at that job?" to find out about coverage on the job from which they were displaced. The question probing about current coverage was, "Other than medicare or medicaid, are/is .... now covered by any group health insurance plan?" A "yes" response to the question on current coverage could mean that the insurance is provided by the new employer or from some other source, such as a spouse's job.

[9] The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) requires employers to continue health care benefits for up to 18 months for employees who are retired, laid off, or otherwise separated from employment. Workers may be charged up to 102 percent of the premium cost.

[10] Displaced worker data presented in this section refer to workers who had any amount of employer tenure prior to losing their jobs. Job tenure data are not available at the region and division level; thus, displacement rates could not be calculated using the 3-year tenure restriction.

[11] For a more detailed discussion of job losses across the United States in the early 1990's, see Mary C. Dzialo and others in "Labor markets on Atlantic and Pacific coasts hit hard in early 1990's," *Monthly Labor Review*, February 1993, pp. 32–39. The four census regions of the United States are Northeast, South, Midwest, and West. Within the Northeast, the New England division includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; and the Middle Atlantic division includes New Jersey, New York, and Pennsylvania. Within the South, the South Atlantic division includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East South Central division includes Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central division includes Arkansas, Louisiana, Oklahoma, and Texas. Within the Midwest, the East North Central division includes Illinois, Indiana, Michigan, Ohio, and Wisconsin; the West North Central division includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Within the West, the Mountain division includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; the Pacific division includes Alaska, California, Hawaii, Oregon, and Washington.

Appendix A: Scope and method of the study

The data presented in this article were collected through a supplement to the February 1994 Current Population Survey (CPS), the monthly survey of about 60,000 households that provides the basic data on employment and unemployment for the Nation. The purpose of this supplement was to obtain information on the number and characteristics of persons who had been displaced (as defined below) from their jobs over the prior 3 calendar years.

The first question asked of survey respondents was, "During the last 3 calendar years, that is, January 1991 through December 1993, did (you/name) lose or leave a job because a plant or company closed or moved, (your/his/her) position or shift was abolished, insufficient work, or another similar reason?" If the answer to that question was "yes," then the respondent was asked to identify which reason, among the following, best described the reason for the job loss:

- Plant or company closed down or moved
- Plant or company operating but lost job because of:
  - Insufficient work
  - Position or shift abolished
  - Seasonal job completed
- Self-operated business failed
- Some other reason

Respondents who provided one of the first three reasons—plant or company closed or moved, insufficient work, or position or shift abolished—were then asked questions about the lost job, including how many years it had been held; the year the job was lost; the earnings, industry, and occupation of the lost job; and whether health insurance had been provided. Other questions were asked to determine what transpired before and after the job loss, such as: Was the respondent notified of the upcoming

dismissal? How long did he/she go without work? Did he/she receive unemployment benefits? And, if so, were the benefits used up? Did the person move to another location after the job loss to take or look for another job? Information was also collected about current health insurance coverage (other than medicare and medicaid) and current earnings for those employed in February 1994.

The definition of displaced workers used in this article—as in earlier studies based on displaced worker supplements—is persons 20 years and older who lost or left a job because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished. Most of the data presented here refer to workers who lost jobs they had held for 3 or more years. There are several important differences between the February 1994 survey and surveys conducted every other January since 1984 in the counting of displaced workers that render the data not strictly comparable:

1) In January 1994, there were two major changes made in the CPS—the implementation of a redesigned survey questionnaire and collection methodology and the introduction of new population estimates from the 1990 census, adjusted for the estimated population undercount. For more information on these changes, see "Revisions in the Current Population Survey Effective January 1994" in the February 1994 issue of *Employment and Earnings*.
2) The reference period used when asking questions about job loss was shortened from "the prior 5 years" in earlier surveys to "the prior 3 calendar years" in the February 1994 survey. This was done because the reliability of the data decreases as the length of the reference period increases. Data on displacements that occurred in the fourth and fifth years of the reference period were probably less accurate than information on job losses that occurred in years closer to the survey date. For example, in the January 1992 survey, the number of displacements in the fourth and fifth years—that is, 1987 and 1988—were markedly lower than when those 2 years were the second and third years of the reference period in the January 1990 survey, a clear indication of recall bias in the later years.
3) This article also excludes displacements that occurred in the year closest to the survey date. This was done to avoid the possibility of including some persons who, having lost their jobs relatively recently when they were surveyed, were counted as displaced when, in reality, their job losses were temporary rather than permanent.
4) Displaced workers who cited one of the three displacement reasons for job loss and then responded later in the questionnaire that their "class of worker" on their lost job was self-employed were excluded from the count of displaced workers in the 1994 survey, whereas they had been included in prior ones.
5) In the February 1994 survey, respondents who reported that they had lost their jobs in 1993 and expected to be recalled within the next 6 months (and thus did not meet the requirements of having been displaced) were left out of the count of displaced workers; in earlier surveys, respondents were not asked directly about their expectation of recall.
6) The most recent displaced worker survey was conducted in February, whereas the five prior surveys were held in January. The survey was postponed 1 month to help ease the transition to the "new" survey and collection methodology which occurred in January 1994. Also, the reference period in the 1994 survey was the calendar years 1991, 1992, and 1993. In the prior surveys, those losing jobs in the first 2 or 3 weeks of January were subject to being counted as displaced.

Appendix B: Statistical error

In any sample survey such as the Current Population Survey, there are two types of errors possible—nonsampling and sampling. Nonsampling errors can be attributed to many sources, including the inability to obtain information about all cases in the sample; definitional difficulties; differences in the interpretation of questions; respondents' inability or unwillingness to provide correct information or to recall information; errors made in data collection, such as in coding or recoding the data; errors made in processing the data; errors made in estimating values for missing data; and failure to represent all units within the sample (undercount).

Sampling error is the variation that occurs by chance because a sample, rather than the whole population, is surveyed. This type of error, or variability, is primarily measured by the standard error. The sample estimate and its standard error can be used to construct confidence intervals (ranges) that would include the average result of all possible samples, with a known probability. When the standard error is multiplied by 2 and then added to and subtracted from the sample

Table B-1. Median weekly earnings and standard errors on the jobs lost between January 1991 and December 1992 and the jobs held in February 1994 for displaced full-time wage and salary workers, by age, sex, race, and Hispanic origin

Age, sex, race, and Hispanic origin	Reemployed in February 1994 in full-time wage and salary jobs			
	Median weekly earnings on:		Standard error of median on:	
	Lost job	Job held in February 1994	Lost job	Job held in February 1994
Total, 20 years and older	$515	$473	$11.56	$11.98
20 to 24 years	(1)	(1)	(1)	(1)
25 to 54 years	518	477	11.96	12.32
25 to 34 years	432	441	26.90	25.80
35 to 44 years	566	505	39.78	17.46
45 to 54 years	546	464	35.85	37.54
55 to 64 years	568	488	96.24	24.37
65 years and older	(1)	(1)	(1)	(1)
Men, 20 years and older	576	523	35.66	10.92
Women, 20 years and older	413	384	20.14	16.17
White				
Total, 20 years and older	530	484	11.73	11.49
Men	589	534	28.06	11.60
Women	425	388	19.78	16.06
Black				
Total, 20 years and older	415	398	28.76	49.84
Men	488	451	57.17	81.55
Women	(1)	(1)	(1)	(1)
Hispanic origin				
Total, 20 years and older	409	375	35.20	22.98
Men	456	395	89.87	22.20
Women	(1)	(1)	(1)	(1)

[1] Data not shown where base is less than 75,000.

NOTE: Data refer to displaced workers who had lost full-time wage and salary jobs they had held for 3 or more years and were reemployed in full-time wage and salary jobs. Displaced workers are persons who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

Table B-2. Median weekly earnings and standard errors on the jobs lost between January 1991 and December 1992 and the jobs held in February 1994 for displaced full-time wage and salary workers, by industry and class of worker

Industry and class of worker of lost job	Reemployed in February 1994 in full-time wage and salary jobs			
	Median weekly earnings on:		Standard error of median on:	
	Lost job	Job held in February 1994	Lost job	Job held in February 1994
Total, 20 years and older	$515	$473	$11.56	$11.98
Nonagricultural private wage and salary workers	519	473	12.38	11.64
Mining	(1)	(1)	(1)	(1)
Construction	641	537	29.00	21.76
Manufacturing	494	440	21.24	39.99
Durable goods	564	473	46.13	18.50
Nondurable goods	351	377	22.83	38.57
Transportation and public utilities	698	580	70.65	60.02
Wholesale and retail trade	450	432	32.04	26.52
Wholesale trade	495	480	26.69	22.12
Retail trade	408	398	66.82	53.95
Finance, insurance, and real estate	568	524	103.00	28.71
Services	474	465	23.50	47.93
Professional services	531	490	24.72	59.82
Other services industries	426	458	45.43	66.48
Agricultural wage and salary workers	(1)	(1)	(1)	(1)
Government workers	508	464	26.78	34.68

[1] Data not shown where base is less than 75,000.

NOTE: Data refer to displaced workers who had lost full-time wage and salary jobs they had held for 3 or more years and were reemployed in full-time wage and salary jobs. Displaced workers are persons who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

estimate, the resulting confidence interval should contain about 95 percent of all possible estimates. If the standard error is multiplied by 1.6 and then added to and subtracted from the estimate, the confidence interval contains 90 percent of all possible estimates. At one standard error, 68 percent of all possible estimates would fall within the confidence interval.

Tables B-1 and B-2 show the median weekly earnings on jobs lost in the 1991–92 period, the earnings on the job held in February 1994, and the standard errors associated with both earnings estimates. The standard error of an estimated median depends upon the shape of the distribution (particularly in the vicinity of the median value) as well as the size of its base. Because the base included in both of these earnings estimates is the same, the differences in the standard errors shown here between the lost and new job are determined solely by the distribution of earnings.

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