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Briefing Paper

Job Displacement Over the Business Cycle, 1991-2001

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Executive Summary

This report analyzes data from the five most recent (publicly available) Displaced Workers Surveys (DWS), covering involuntary job loss (not for cause) from 1991 to 2001, a period that corresponds roughly to the most recent complete business cycle. Using the fairly strict definition of job displacement employed by the Bureau of Labor Statistics (BLS), in any given year over this period, about 4 million workers or about 3 percent of the workforce had been displaced at some point in the preceding three years. Depending on assumptions about the likelihood that workers experienced repeated spells of displacement, between 6 and 11 percent of all workers were displaced at one point over the 11 years between 1991 and 2001.

Job displacement affects all kinds of workers, but some appear to be at higher risk. Displacement rates tend to be higher for men (3.3 percent) than for women (3.0 percent) and grow sharply with age.

A high-school degree and even some college education provide relatively little protection against displacement. Workers with less than a high school degree on average have a 3.3 percent chance of displacement over any three-year period. Workers with a high-school degree also have a 3.3 percent probability of displacement, virtually identical to the 3.4 percent probability for workers with some college. The 2.9 percent displacement rate for college educated workers is only slightly below the overall average of 3.1 percent.

Fewer than half of displaced workers (44 percent) received advanced notification of their job loss. Of those who did receive notice, about one fourth (24 percent) received less than one month, and more than half (54 percent) received less than two months.

About half of displaced workers (49 percent) did not receive unemployment benefits. Of those who did receive unemployment benefits, about 22 percent remained unemployed for so long that they exhaust their benefits.

The path to reemployment is difficult for most workers. Almost one-fourth (25 percent) of those displaced had not worked between the time of their job loss and the time they were interviewed for the DWS. Those who did eventually find work were unemployed for an average of 14 weeks. Of the full-time workers who were displaced, only 72 percent had a job at the time they were interviewed for the DWS; and just 64 percent were back in full-time jobs.

About 40 percent of all displaced, full-time, workers were in full-time jobs that paid less than the job they lost, with about 20 percent of the total in jobs that required taking a pay cut of 20 percent or more relative to the job they lost. About 24 percent of all displaced full-time workers were in jobs that paid at least as well as the job they lost. Only 10 percent were in jobs that paid 20 percent or more than their lost job.

Older workers pay the biggest economic costs after displacement. About 24 percent of previously full-time males workers ages 55 to 64 left the labor force after displacement, compared to only about 5 percent of younger men. About 34 percent of 55-to-64 year old women left the labor forced, compared to only 14 percent of younger women. Workers ages 45 to 64 were also much more likely than younger workers to experience a pay cut after finding, new, full-time employment. Among men with a new, full-time, job, about 38 percent of 45-to-54 year olds and 55-to-64 year olds had taken a pay cut of 20 percent or more at their new job. For 55-to-64 year old women, the pay penalty was even larger, with 44 percent of those re-employed in a full-time job experiencing at least a 20 percent drop in pay.

Introduction

Every two years, the Bureau of the Census, on behalf of the Bureau of Labor Statistics (BLS), conducts the Displaced Workers Survey (DWS), a large, nationally representative survey of the incidence and experience of involuntary job loss.[2] This report reviews the data from the five most recent (publicly available) versions of the DWS, conducted in 1994, 1996, 1998, 2000, and 2002.[3] The report details how many and what kinds of workers suffer job displacement and seeks to describe the economic situation that these workers face, at the time they lose their jobs, in the period immediately following their job loss, and, where the data are available, in their subsequent jobs.

While the exact timing of the DWS and its three-year recall period does not match the 1990s business cycle perfectly, the DWS data analyzed here do cover a period (1991 through 2001) that corresponds roughly to the complete 1990s-2000s business cycle. According to the National Bureau of Economic Research (NBER), for example, the economy hit a trough in March 1991, reached a peak in March 2001, and troughed again in November 2001 (see Table 1, column 3). By this standard, the first year of the DWS coverage analyzed here, 1991, includes the last three months of the early 1990s recession and the beginning of the subsequent recovery; the last year of this analysis, 2001, includes the peak of the cycle and entire downturn from April through November 2001. If, instead, we use the annual unemployment rate as guide to the state of the business cycle, the economy reached a trough in 1992, peaked in 2000, and hit a trough again in 2003 (Table 1, column 1). Finally, using employment growth rates to gauge the cycle puts the early 1990s trough at 1991, the peak at 2000, and the new trough in 2003 (Table 1, column 2).[4] All three of these benchmarks, therefore, suggest that the 1991-2001 period follows fairly closely the flow of economic activity from the economic trough in the about 1991 through the peak in 2000 or 2001.

[2] The DWS focuses on involuntary job loss not for cause.

[3] The Bureau of the Census conducted the Displaced Workers Survey before 1994, but the earlier versions of the survey used a five-year recall period, which is not comparable to the three-year recall period used in the survey from 1994 forward. For an analysis of the DWS that attempts to control for this and other changes in the survey, see Farber (2003).

[4] Based on the information we have to date for 2004.

TABLE 1
The business cycle, 1991-2001

	Unemployment rate (%)	Employment growth (%)	NBER Business Cycle
1988	5.5	3.2	
1989	5.3	2.5	
1990	5.6	1.4	Peak (Jul)
1991	6.8	-1.0	Trough (Mar)
1992	7.5	0.3	
1993	6.9	1.9	
1994	6.1	3.1	
1995	5.6	2.6	
1996	5.4	2.1	
1997	4.9	2.6	
1998	4.5	2.6	
1999	4.2	2.4	
2000	4.0	2.2	
2001	4.7	0.0	Peak (Mar); Trough (Nov)
2002	5.8	-1.1	
2003	6.0	-0.3	

Notes: Unemployment rate for civilian noninstitutional population (series LNU04000000); annual growth in total nonfarm employment (series CEU0000000001); both from Bureau of Labor Statistics web site (http://www.bls.gov). Dates for business cycle peaks and troughs from National Bureau of Economic Research (http://www.nber.org /cycles/cyclesmain.html).

This report is not a study of *trends* over time in job loss. Job losses are highly cyclical. Any analysis of trends would need to control for the effects of the business cycle, which would be best done by comparing data across similar points in the business cycle. The latest DWS analyzed here covers 1999, 2000, and 2001, a period that includes two years of strong economic growth and job creation in 1999 and 2000 and one year dominated by recession in 2001. The earliest DWS survey analyzed here covers 1991, 1992, and 1993, which includes the last three months of the ten-month-long 1990-1991 recession and, from that point on, the early stages of a what was often referred to as a "jobless recovery." These differences make it difficult to separate out cyclical from longer-term effects. As a consequence, this report will concentrate instead on characterizing job displacement over an entire business cycle in an effort to describe features of workers' typical experiences with involuntary job loss.[5]

[5] The January 2004 DWS, which the BLS expects to release sometime in the summer of 2004, will be better suited to analyzing longer-term trends in displacement. The 2004 DWS will cover job displacement in 2001, which includes the NBER trough, and 2002 and 2003, two early years in the economic recovery. This is fairly

Defining Job Displacement

In general, this report uses the definition of job displacement developed by the BLS. For a worker to qualify as a "displaced worker," he or she must have:

- lost a job during the three calendar years preceding their interview in the DWS (which took place every other year in February, except in 2002, when the survey was fielded in January);
- lost the job due to "plant closing"; "insufficient demand"; or "shift abolished" (and never for cause);
- not expected to be recalled to the job within six months of when laid off; and
- held the lost job for at least three years.

Broader definitions are also possible. For example, some analysts have counted as displaced those workers who lost their jobs for additional reasons, such as the failure of a self-operated business or the end of seasonal employment; or relaxed the requirement that workers have three or more years of tenure on the lost job; or included workers who expected to be recalled within six months of their job loss.[6] While each of these broader definitions has its merits, this report adheres to the strict definition employed by the BLS, in part, because the BLS definition probably best captures the experience of "downsizing," "outsourcing," and other terms used in the public discussion of job displacement, important features of which include the emphasis on the permanent loss of relatively long-term, steady, jobs.

Findings

Prevalence of displacement

According to the DWS data, job displacement is a widespread phenomenon. Using the strict definition of displacement set by the BLS, in any given year during the 1994-2002 period, between 3.3 and 4.5 million workers (2.5 to 3.6 percent of the workforce)[7] had been displaced at some point in the preceding three years (see Table 2). Under the extreme assumption that workers were never displaced more than one time over the 1991-2001 period, the three-year-displacement rates in Table 2 suggest that 11.1 percent of all workers would have been displaced at one point over the 11 years.[8] More

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similar to the period covered by the 1994 DWS, which includes 1991 (an NBER trough) and the early recovery years of 1992 and 1993.

[6] See Farber (2003) for an analysis of broader definitions of displacement. Baumol, Blinder, and Wolff (2003) examine the issue of "downsizing," including displacement (see their Chapter 8).

[7] Following Farber (2003), for purposes of this calculation, the workforce is defined as those employed at the time of the survey, plus those displaced in the preceding three years who were not employed at the time of the survey.

[8] Based on the cumulative probability of not being displaced in each of the three-year periods, adjusting for the overlap in three-year periods from the 1996 DWS on: (1-0.036)* (1-(2/3)*0.035)* (1-(2/3)*0.029)* (1-(2/3)*0.025)* (1-(2/3)*0.031)=0.889. Multiplying the 1996 through 2002 rates by (2/3) assumes that displacement probabilities were identical over each of the three years.

realistically, some portion of the workforce probably suffered multiple episodes of displacement, with the result that the share of all workers who were displaced during the period would be lower (with the burden of job loss concentrated heavily on a small portion of the labor force). Even assuming, however, that the same group of workers accounts for half of all displacements, roughly 5.5 percent of workers –more than one in 20 workers– were displaced at least once during the 11 years between 1991 and 2001.[9]

Using a broader definition of displacement than the one used by the BLS, the three-year job displacement rate is much higher. Table 2 shows the level and rates of displacement when the BLS definition is relaxed to allow for a broader set of reasons for job loss (end of seasonal work; failure of self-employed business; and "other" reasons, not for cause), with no restrictions on tenure at the lost job or on expectations about recall. Under this less restrictive definition, 13.2 to 16.6 million workers –10.5 to 12.4 percent of the workforce– were displaced over various three-year periods between 1991 and 2001.

TABLE 2
Workers displaced in preceding three years, 1994-2004

	1994	1996	1998	2000	2002
(a) Number of workers (thousands)					
BLS definition	4,463	4,161	3,567	3,266	3,957
Broad definition	13,200	16,600	14,000	14,200	16,400
(b) Rate (percent)					
BLS definition	3.6	3.5	2.9	2.5	3.1
Broad definition	10.5	13.4	11.0	10.8	12.4

Notes: Analysis of CEPR extract of Current Population Survey Displaced Workers Survey. BLS defines displacement as lost job, which had been held for three or more years, due to plant closing, insufficient work, or position abolished; not expecting to be recalled in the next six months; and not self-employed at lost job. Broad definition includes workers workers whose seasonal job ended, whose self-operated business failed, or who reported displacement for "other" reasons, and includes those who expect to be recalled in the next six months, with no limit on tenure at the lost job. Displacement rates are calculated as the total number of workers who report being displaced in the preceding three years over the sum of total employment as of the survey date plus the total number of workers reporting displacement that are not working as of the survey date.

[9] The DWS only collects information on one episode of displacement for each worker during each three-year period. Stevens (1997) uses data from the Panel Survey of Income Dynamics to study multiple episodes of job loss.

Types of workers displaced

Job displacement affects all kinds of workers, but some groups appear to be at higher risk. Table 3 provides a breakdown of displacement rates by several demographic characteristics. Displacement rates tend to be higher for men (3.3 percent) than for women (3.0 percent).[10] The probability of displacement also typically grows with age. Workers in the 20-to-24 range have the lowest probability of displacement (1.0 percent), in part because they are less likely than older workers to have been at the same job for at least three years. Displacement rates then rise with age: 25-to-34 year olds have a 2.8 percent three-year probability of displacement, rising to 3.5-3.6 percent for 35-to-44 and 45-to-54 year olds, with 55-to-64 year olds facing a 4.1 percent rate. The displacement rate then dips slightly, to 3.8 percent, for workers age 65 and older.

A high-school degree and even some college education provide relatively little protection against displacement. Workers with less than a high school degree, for example, have an average 3.3 percent three-year chance of displacement, which is essentially identical to the 3.3 percent rate for workers with a high-school degree and the 3.4 percent rate for workers with some college (but no degree). Even college-educated workers' 2.9 percent rate is not far below the national average of 3.1 percent. Displacement is also spread fairly evenly by race, ethnicity, and national origin. Whites have slightly higher rates (3.2 percent) than blacks and Hispanics (both 3.0 percent). Workers born in the United States have a slightly higher displacement rate (3.2 percent) than workers born in other countries (2.9 percent). One important reason that displacement rates are slightly lower for black, Hispanic, and immigrant workers is that these workers are less likely to have three years of tenure.[11]

The "typical" displaced worker (a function of the characteristics of the workforce and the corresponding rates of displacement) is a white, male, born in the United States, aged 35 to 44, with a high school degree (Table 3, column 2). Women, workers aged 45 to 54, with some college, and even a college degree, are also well represented among the displaced. Some traditionally less-advantaged workers, such as African American and Latinos, constitute a relatively small share of the total displaced. Given that displacement rates by race and ethnicity don't vary substantially by race or ethnicity, the relatively low representation of blacks and Hispanics primarily reflects their small share in the population and workforce.

[10] Unless stated otherwise, all discussion of displacement follows the BLS's definition.

[11] For example, using the broader definition of displacement, which does not require that workers have three years of tenure to be defined as "displaced," the share of displaced workers is higher for blacks (13.2 percent) and Hispanics (14.1 percent) than it is for whites (11.1 percent).

TABLE 3
Displacement rates, by worker characteristics, 1991-2001
(Percent)

	Three-year displacement rate	Share of all displaced workers
(a) All	3.1	100.0
(b) Gender		
Female	3.0	44.6
Male	3.3	55.4
(c) Age		
20-24	1.0	3.3
25-34	2.8	22.1
35-44	3.5	31.4
45-54	3.6	25.4
55-64	4.1	13.8
65+	3.8	3.9
(d) Education		
Less than high school	3.3	9.9
High school	3.3	34.4
Some college	3.4	31.4
College	2.9	17.3
Advanced	2.3	7.0
(e) Race		
White	3.2	76.9
Black	3.0	10.3
Hispanic	3.0	9.2
Other	2.7	3.5
(f) Place of birth		
Foreign born	2.9	10.1
US born	3.2	89.9

Notes: Analysis of CEPR extract of Current Population Survey Displaced Workers Survey, pooled 1994, 1996, 1998, 2000, and 2002.

Reasons for displacement

Using the BLS definition, the most important reason for job displacement –about 46 percent of the total– is plant closing (see Table 4, column 1). By this strict definition, "position abolished" accounted for about 30 percent of displacement and "insufficient work" for the remainder (about 25 percent).

Following the broader definition, which allows for additional reasons for job loss, and places no restrictions on tenure at the lost job or expectations about being recalled to the same job, the most important reason for job displacement is the "other reason" category[12] (29 percent), followed by "insufficient work" (25 percent) and "plant closing" (25 percent). "Position abolished" also accounts for a significant portion of total displacement (16 percent). Only a relatively small portion of job displacement, broadly defined, was a result of the loss of a seasonal job (4 percent) or the failure of a self-employed business (2 percent).

TABLE 4
Reason for job displacement, 1991-2001
(Percent of all displaced workers)

	BLS definition	Broad definition
Plant closing	46.0	24.9
Insufficient work	24.5	25.3
Position abolished	29.5	15.7
Seasonal job ended	--	3.9
Self-employment failed	--	1.6
Other	--	28.6
Total	100.0	100.0

Notes: Analysis of CEPR extract of Current Population Survey Displaced Workers Survey, pooled 1994, 1996, 1998, 2000, and 2002.

Advanced notice

Fewer than half of displaced workers (44 percent) received advanced notification of their job loss (see Table 5). Of those who did receive notice, about one fourth (24 percent) received less than one month, and more than half (54 percent) received less than two months.

[12] Farber (1998, 2003) include a careful analysis of the underlying causes of displacement for "other reasons," based on special debriefings of a subsample of participants in the DWS. Farber (2003) concludes that about one-fourth of those citing "other reasons" for job loss had, in fact, lost their job involuntarily.

Unemployment benefits

About half of displaced workers (49 percent) did not receive unemployment benefits (Table 5). Of those who did receive unemployment benefits, about one-in-five (22 percent) remained unemployed so long that they exhausted their benefits.

Finding new work

The path to reemployment is difficult for most workers. Almost one-fourth (25 percent) of those displaced at some point between 1991 and 2001 had not worked between the time of their job loss and the time they were interviewed for the DWS (Table 5). Those who did find work spent, on average, 14 weeks unemployed.

TABLE 5
Experience of displacement, 1991-2001
(Percent of total displaced)

Notified in advance	43.6
Notice (if notified)	
<1 month	23.7
1-2 months	30.1
2+ months	46.2
Unemployment benefits	
Received	51.1
Exhausted	22.1
Haven't worked since	22.9
Weeks without work	14.1

Notes: Analysis of CEPR extract of CPS DWS, pooled 1994, 1996, 1998, 2000, and 2002.

Economic costs for displaced, full-time workers

Table 6 summarizes the economic situation, as of the DWS date, of the subsample of full-time workers displaced in the three years before each survey. The last row shows the average outcome across all five biennial surveys.[13] Among those displaced from a full-time job, about 13 percent had left the labor force, and another 15 percent were unemployed at the time of their interview.

[13] Calculated as the unweighted average of the percentages from the five separate surveys.

TABLE 6
Economic situation of displaced, full-time, workers, as of survey date, 1994-2002
(Percent of all displaced, full-time, workers)

			Employed				Change in real weekly earnings: new full-time job compared to lost full-time job			
	Not in labor force	Unem-ployed	Self-employed	Part-time	Full-time	Employed	-20% or more	Below, but w/in 20%	Equal, above but w/in 20%	+20% or more
1994	11.4	20.1	6.1	9.1	59.4	68.5	21.9	16.8	12.3	8.4
1996	13.2	12.5	6.8	8.3	66.0	74.4	23.0	19.0	13.8	10.3
1998	12.3	10.6	4.3	9.2	67.9	77.1	18.7	18.1	16.0	15.1
2000	14.0	11.1	4.0	6.4	68.4	74.9	21.3	21.9	15.2	10.0
2002	14.2	22.5	3.6	7.2	56.1	63.3	18.6	18.0	11.8	7.7
Avg.	13.0	15.4	5.0	8.0	63.6	71.6	20.7	18.8	13.8	10.3

Notes: Analysis of CEPR extract of Current Population Survey Displaced Workers Survey. Real weekly wages calculated using the CPI-U-RS.

About 5 percent of displaced full-time workers had entered self-employment and 8 percent were working part-time. Only 72 percent of the displaced full-timers had a job at the time they were interviewed for the DWS; and just 64 percent were back in full-time jobs. About 40 percent of all displaced full-time workers were in new full-time jobs that paid less than the job they lost, with about 19 percent of the total in jobs that required taking a pay cut of 20 percent or more relative to the job they lost. About one-fourth (24 percent) of all displaced full-time workers were in jobs that paid at least as well as the job they lost. Only 10 percent were in jobs that paid 20 percent or more than their lost job.[14]

The first five rows of Table 6 demonstrate the cyclical variation in the outcome of displacement. As the unemployment rate fell between 1994 and 2000, the share of displaced, full-time workers who were unemployed at the time of their interview with the DWS also declined, from 20 percent to 11 percent. The cyclical pattern is complex, however, and influenced by the timing of the DWS relative to the cycle. So, for example, the share in full-time employment at the time of the DWS survey, rose and fell with the business cycle: from 59 percent in 1994 to 68 percent in 2000, then falling to 56 percent at the beginning of 2002. However, the share employed (full-time or part-time) rose steadily after 1994, but began to fall in early 2000, while the economy was, apparently, still expanding.

The economic costs of displacement vary by gender. As the first two rows of Table 7 show, over the 1991-2001 period, displaced, full-time, women workers were much more likely (18 percent) to exit the labor force than their male counterparts (10 percent). Unemployment rates for displaced men (16 percent) and women (15 percent) were close, but displaced women were less likely than men to be re-employed at the time of the DWS (67 percent for women, compared to 75 percent for men). Women were also less likely to be re-employed in full-time jobs (56 percent, compared to 69 percent for men). However, displaced full-time men and women who did find new full-time work had generally similar experiences with pay at their new jobs. Just under two-thirds of men (63 percent) and women (61 percent) who were re-employed in full-time jobs took a pay cut.

[14] In an interesting study using payroll records from a financial services firm that engaged in layoffs and a telephone survey modeled closely on the DWS questionnaire, Oyer (2004) found evidence that DWS respondents may overstate their earnings on their lost job (on average, about 5 percent). Oyer concludes that most of the overstatement is due to a relatively small group of observations that substantially over- or under-report their pre-layoff earnings (with more over-reporting than underreporting). The median difference between reported and actual (from the payroll records) earnings, for example, was an overstatement of only 1.6 percent. If Oyer's results for the financial services sector are applicable to the full sample of the DWS, they suggest that the categories in Tables 6 and 7 for gained or lost more than 20 percent of weekly, full-time earnings may be slightly larger than they should be, with the bias larger for the earnings losers than gainers. At the same time, Oyer's analysis did not look at respondents' bias in reporting their current wage. To the extent that either misreporters are less likely to find new jobs or that misreporters systematically over- or under-report earnings, any biases in Tables 6 and 7 would be diminished.

TABLE 7

Economic situation of displaced, full-time, workers, as of survey date, average for 1994-2002 surveys, by sex and age

(Percent of all displaced, full-time, workers)

							Change in real weekly earnings: new full-time job compared to lost full-time job		
	Not in labor force	Unem-ployed	Self-employed	Part-time	Full-time	Employed	-20% or more	Below, but w/in 20%	Equal, above but w/in 20%	+20% or more
Men	9.6	15.8	6.1	5.6	69.0	74.6	22.3	20.8	14.8	11.1
Women	17.9	14.7	3.2	11.3	56.1	67.4	18.5	15.9	12.4	9.2
Men										
25-34	3.7	13.7	4.7	4.7	77.9	82.5	22.4	20.0	19.0	16.5
35-44	6.0	15.6	5.1	4.4	74.1	78.4	22.3	23.6	17.1	11.1
45-54	6.3	16.6	8.4	4.4	72.8	77.1	28.0	21.6	13.5	9.7
55-64	24.1	16.8	7.6	8.9	50.3	59.1	18.9	18.0	8.7	4.5
Women										
25-34	14.0	13.4	3.0	12.4	60.1	72.5	18.9	14.7	14.1	12.3
35-44	12.9	13.8	3.3	13.0	60.4	73.4	18.1	17.0	15.0	10.3
45-54	13.0	15.9	4.0	9.5	61.6	71.1	21.3	19.8	12.1	8.4
55-64	33.5	17.5	2.7	9.2	39.8	49.0	17.3	11.8	7.3	3.4

Notes: Analysis of CEPR extract of Current Population Survey Displaced Workers Survey. Real weekly wages calculated using the CPI-U-RS.

Age has an even greater impact on the economic cost of displacement. The second and third panels of Table 7 present the economic outcomes data, by gender, for four age groups. Older workers (ages 55 to 64) are far more likely than younger workers to leave the labor force after displacement. About 24 percent of previously full-time males workers in the oldest age group left the labor force after displacement, compared to only 4 to 6 percent of men in the three younger age categories. Among women, about 34 percent of older women left the labor forced, compared to only 13 to 14 percent of younger women.

Workers in the two oldest age groups –ages 45 to 54 and 55 to 64– were also more likely than younger workers to experience a pay cut after finding, new, full-time employment. Among previously full-time men with a new, full-time job, about 39 percent of 45-to-54 year olds and 38 percent of 55-to-64 year olds had taken a 20 percent or larger pay cut, compared to only 29 to 30 percent of men in the younger age groups.[15] The pay penalty was even larger for 55-to-64 year old women: about 44 percent of those re-employed in a full-time job experienced at least a 20 percent drop in pay, compared to 35 percent of 45-to-54 year old women, and 30-32 percent of younger women. At the same time, the share of full-time workers who saw their pay rise 20 percent or more at their new job declined smoothly with age for both men and women. Among re-employed full-time men in the 25-to-34 range, about 21 percent had pay increases of 20 percent or more, compared to 15 percent of 35-to-44 year olds, 13 percent of 45-to-54 year olds, and only 9 percent of 55-to-64 year olds. The pattern for women was similar.

[15]These, and similar figures below, are calculated as the share of all workers in each pay category over the share of total full-time workers. So, for example, for 45-to-54 year old men, (28.0/72.8) equals 38.5 percent.

Conclusion

Independent of the specific definition of used, job displacement affected millions of workers during the business cycle from 1991 through 2001. Using the fairly strict definition employed by the BLS, in any given year about 4 million workers or about 3 percent of the workforce had been displaced at some point in the preceding three years. The economic costs for these workers are substantial, often including prolonged spells of unemployment ending in withdrawal from the labor force or in new jobs that pay less, and frequently much less, than the jobs they lost. Only a small fraction (fewer than10 percent) find themselves in jobs that offer pay significantly above what they had earned earlier.

Data Appendix

The DWS is a survey of job displacement administered every other year in January or February since 1984 as part of the Bureau of the Census' Current Population Survey (CPS). The CPS is a monthly survey of 50,000 to 60,000 households (used for, among other purposes, to calculate the official unemployment rate). All participants in the CPS age 20 and older are asked about job displacement during the preceding five years (1984 through 1992) or three years (1994 through 2004). Workers who report that they have experienced job loss due to "plant closing," "slack demand," or "shift abolished" are then asked a series of detailed follow-up questions about the job lost, their post-displacement experience, and their current economic situation. For more details on the CPS, see the CPS home page: http://www.bls.census.gov/cps/; for the DWS, see the DWS home page: http://www.bls.census.gov/cps/dispwkr/dispwkr.htm.

This report analyzes the five most recent (and publicly available) versions of the survey, for 1994, 1996, 1998, 2000, and 2002, which cover job losses during the period 1991 to 2001. Changes in the recall period for the survey make comparisons before and after the period (see Farber, 2003, for an attempt to create a consistent series of job displacement across the change in the DWS). The survey underwent additional, though minor changes between 1994 and 1996, and has been essentially identical since 1996.

Using the BLS's definition of displacement, the resulting sample of displaced workers analyzed is 8,629. The annual breakdown of the sample is: 1994: 2,303; 1996: 1,677; 1998: 1,496; 2000: 1,322; and 2002: 1,831.

All programs used to construct the data are available by request to jschmitt@cepr.net; beginning in September 2004, the programs will also be available for downloading through CEPR's Data Resource Project (see http://www.cepr.net).

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