

Hurt the Worst | *The Risk of Unemployment among Disadvantaged and Advantaged Male Workers, 1968–2003*

BENJAMIN J. KEYS & SHELDON DANZIGER

Over the last three decades, structural changes in the American labor market eliminated many highly paid, stable jobs that had previously been available to workers with a high school diploma or less. Even though unemployment rates for much of the past decade have been lower than they were from the mid-1970s through the early 1990s, the relative economic position of less-educated male workers is lower now than it was a quarter century ago. For example, among workers between the ages of fifteen and fifty-four who were high school dropouts, real hourly wage rates in 2004 were 9% below their 1979 levels; among high school graduates in the same age range, real wages in 2004 were only 5% higher than in 1979.¹ Declines in the extent of unionization, erosion of the real value of the minimum wage, increased globalization of labor and product markets, increased immigration, and a technology-driven wage premium for college graduates have all contributed to the labor market problems of less-educated workers.²

Job security is important, particularly for disadvantaged workers who have fewer financial resources to cushion income losses than other workers and are less able to plan for the future when jobs are insecure. Job losses have more deleterious consequences for less-educated workers

who are less likely than other workers to receive severance packages and more likely than others to have difficulty finding new jobs. This chapter addresses several questions about changes in employment stability over the last three decades: How likely is it that a man who is employed when interviewed in one year is unemployed when interviewed two years later? Conversely, how likely is it that a man who is unemployed when interviewed in one year is employed when interviewed two years later? Have these probabilities changed over time? Do trends in employment security differ for workers classified by education and race?

We analyze longitudinal data from the Panel Study of Income Dynamics (PSID) for the period from 1968 through 2003. We compare the risk of unemployment for employed male household heads classified by age (20–30, 31–40, 41–50, 51–62), educational attainment (high school dropout, high school diploma, some college, college graduate), and race (white, black). We focus on transitions into and out of unemployment as unemployment most frequently reflects involuntary job loss. We do not analyze individuals who have exited from employment to being out of the labor force because our data do not distinguish between those who left jobs and the labor force for personal reasons, such as to attend school or to retire early, and those who stopped looking for work because they thought no jobs were available (discouraged workers). We find that younger, less educated, and minority male workers have a higher risk of unemployment at the end of a two-year period, and also have a lower probability of returning to work after having been unemployed.

The next section briefly reviews previous studies; later sections describe data and methods, present results, and summarize key findings.

PREVIOUS STUDIES

Because Henry S. Farber reviews the previous literature (see chapter 1, this volume), we mention only studies that are closely related to our analysis.³ Young workers usually work at a series of jobs after completing their education. Robert H. Topel and Michael P. Ward estimate that a typical male holds seven jobs in his first ten years in the labor market.⁴ Thus, we control for a worker's age. Robert W. Fairlie and Lori G. Kletzer document that black men were about 25% more likely to experience job displacement than whites during the 1980s (4.8% vs. 3.8% per year).⁵ In

addition, black displaced workers were 30% less likely to be reemployed by the next survey (44% vs. 61%). These differences can be attributed partly to the fact that black men had on average completed fewer years of schooling than white men. Thus, we control for racial and educational differences in estimating the risk of unemployment and the likelihood that an unemployed worker returns to employment, and we also calculate the risk of unemployment for separate race and education categories.

Business cycle fluctuations strongly affect the likelihood of job loss. After accounting for business cycle fluctuations, Francis X. Diebold, David Neumark, and Daniel Polsky conclude that job stability was roughly constant over the 1973 to 1991 period.⁶ However, job retention rates fell for less educated and African American workers, relative to more educated and white employees. We account for the business cycle by evaluating how the risk of unemployment for various workers is affected by fluctuations in the national unemployment rate and how this risk has varied during each of the last several decades to see if there have been secular trends that are unrelated to cyclical fluctuations.

Our methodology draws heavily from that of two prior studies. Peter Gottschalk and Robert Moffitt analyze three measures of job insecurity: the probability that a job ends involuntarily, the probability of starting a spell of nonemployment (either becoming unemployed or leaving the labor force) conditional on involuntary job loss, and the probability that the subsequent job has lower wages than the involuntarily terminated job.⁷ They find that all three probabilities were generally unchanged from the early 1980s through the mid-1990s. Robert G. Valletta finds that between 1976 and 1991, the annual likelihood of involuntary dismissals increased from 4.1% to 5.5% for men, with the unemployment rate being the strongest predictor of dismissals, and that higher job tenure and higher wages are negatively related to the probability of job loss.⁸

Building on these studies, we estimate the effects of business cycles, differences across decades, and demographic characteristics on the likelihood that a man working at one interview is unemployed when interviewed two years later and that an unemployed worker in one year has returned to work two years later. Our study period is longer than those of other authors. We estimate both unemployment and reemployment probabilities, and examine how these probabilities and the factors that influence them vary by race, age, and educational attainment.

DATA AND METHODS

The PSID has followed the same individuals from 1968 to the present. In each year, our sample includes male household heads between the ages of twenty and sixty-two who are not students and who have valid race, gender, and education information. The PSID gathers the employment information we use only from household heads, which means that a young adult living with his parents is not a PSID head and is not included. We analyze the risk of unemployment over the period from 1968 to 2003, using all thirty-five years of the panel data, and extending the results of recent studies through the economic boom of the 1990s and the period of slow economic growth following the 2001 recession.⁹

We define unemployment risk as the likelihood that an individual who is employed at one PSID interview is unemployed at the interview two years later. For any year t , our sample consists of men who worked at the time $t-2$ interview. We define a man as having exited from employment to unemployment if he was not working but was searching for a job at the time t interview. We define a man as having exited from unemployment to employment if he was unemployed at the time $t-2$ interview but was working when interviewed at time t .¹⁰

We now describe trends in employment and unemployment for workers classified by education and race. Then we estimate regressions that control for demographic attributes, the business cycle, and secular trends.¹¹

RESULTS

TRENDS

Figure 3.1 shows the employment rate from 1968 through 2003 for male household heads between the ages of twenty and sixty-two, classified by educational attainment. The rate for college graduates (top line) is about 95% for most years between 1968 and the early 1990s; the rate then declined to about 90% after 1994. The employment rates for high school graduates and those with some college (the second and third lines) follow roughly the same pattern, although the long-run decline is somewhat greater. About 95% of high school graduates worked in the late 1960s; the rate fell to about 90% by 1980 and then to around 85% in the early 2000s.

High school dropouts (bottom line) are much less likely than other men to be employed in any year and have experienced the greatest decline over the thirty-five-year period.¹² In the late 1960s, their employment rate was about 90%. It fell to 74% in 1983 due to the severe recession. For the next two decades, their employment rate never exceeded 78%. The gap between the employment rate of college graduates and high school dropouts was four percentage points in 1968, but fifteen points in 2003.¹³

High school dropouts are more likely to be unemployed than those with higher education in any year, and this differential has also grown over time. Figure 3.2 documents that unemployment for dropouts rose from 3.9% in 1968 to 13.8% in 1983. The rate remained above 10% until the economic boom of the 1990s when it fell to 5% in 1997. However by 2003, it had increased back to 10%.

The unemployment rates for high school graduates and heads with some college follow the business cycle. Among high school graduates, unemployment rose from around 2% in the late 1960s to 6.7% during the recession in the early 1970s, and then fell to about 4%, before rising to 10.5% in 1983. The rate fell to less than 5% in the late 1980s, rose to about 8% in 1992 and fell to 3.5% in 1999. The rate for college graduates is roughly flat, around 2% in any interview year. Thus, the less educated are much more likely to lose their jobs due to business cycle fluctuations than are college graduates.

Figure 3.3 shows the employment rate separately for African American and white men. The sharp decline in employment over the thirty-five-year period for blacks is similar to that for all high school dropouts. In the late 1960s, black and white males were employed at similar rates (88% and 92% in 1969, respectively). The racial gap widened to nine percentage points by 1979 (84% vs. 93%) and to thirteen points by 1983 (76% vs. 87%) before narrowing during the 1990s boom. In 2003, only 77% of black male household heads and 86% of whites were employed. As shown below, educational attainment differences contribute to this racial employment gap.

The unemployment rate for African American men exceeds that for whites (figure 3.4). While both series show cyclical patterns, black men are more likely to lose their jobs during economic downturns. The unemployment rate spiked for blacks in the mid-1970s, early 1980s, and early 1990s. Between 1979 and 1983, unemployment rose from 7.7% to 15.4% for blacks and from 1.7% to 6.2% for whites. Between 1997 and 2003, the white rate

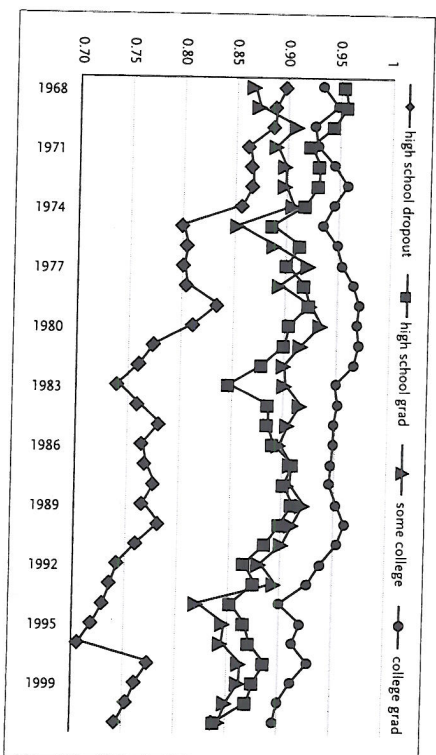


Figure 3.1 Employment rate of male household heads, by education
[Source: Authors' calculations using the PSID, 1968-2003]

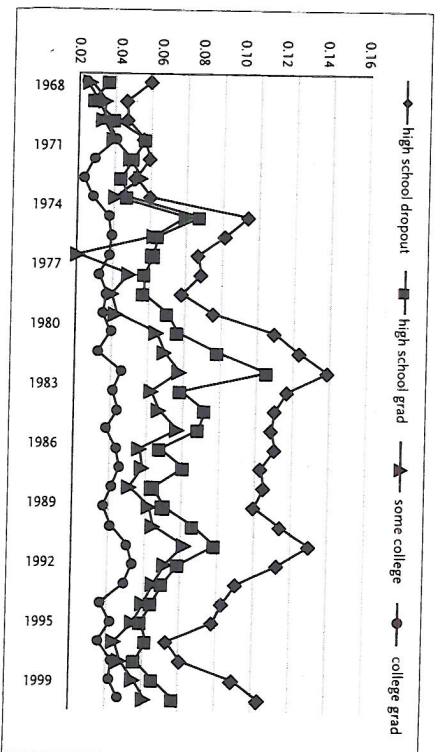


Figure 3.2 Unemployment rate of male household heads, by education
[Source: Authors' calculations using the PSID, 1968-2003]

increased from 2.1% to 3.7%, whereas the black rate increased from 5.7% to 9.4%. These data include only household heads who have lower unemployment rates than other men; also, men between the ages of twenty and sixty-two have lower rates than those of younger and older men.

Figure 3.5 takes advantage of the panel nature of the PSID data and shows the probability that a male employed at the year $t-2$ interview was unemployed at the year t interview. This risk of unemployment was highest in 1983—6.9% of men working at the 1981 interview were out of

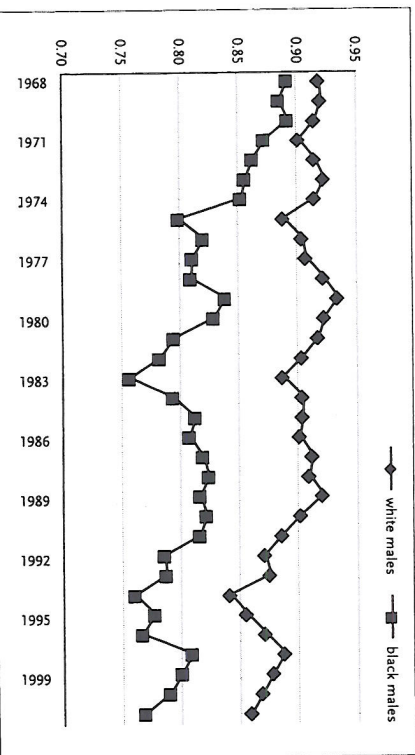


Figure 3.3 Employment rate of male household heads, by race
[Source: Authors' calculations using the PSID, 1968-2003]

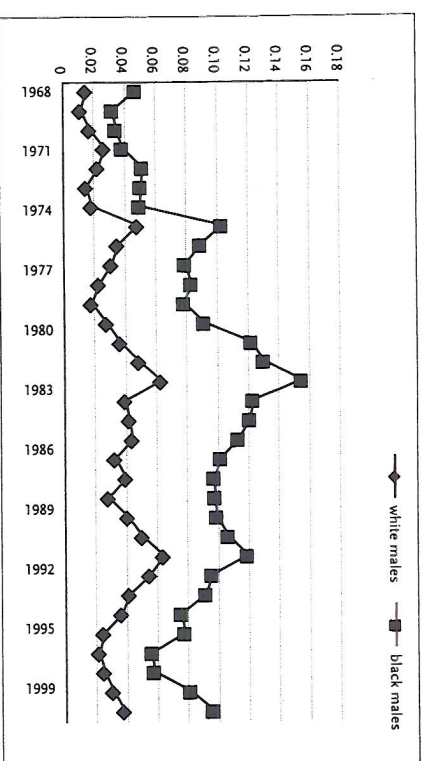


Figure 3.4 Unemployment rate of male household heads, by race
[Source: Authors' calculations using the PSID, 1968-2003]

work and searching for jobs when interviewed two years later. This two-year exit probability fell to 3.6% in 1989, rose to 5.5% in 1992, declined to 2.2% in 1999, and then increased to 4.2% in 2003. The pattern from the early 1980s to the mid-1990s is consistent with changes in the national unemployment rate over the business cycle.

Figure 3.6 shows the probability that an unemployed worker at the $t-2$ interview was working at the year t interview. The exit from unemployment to employment is highest in good economic times—the

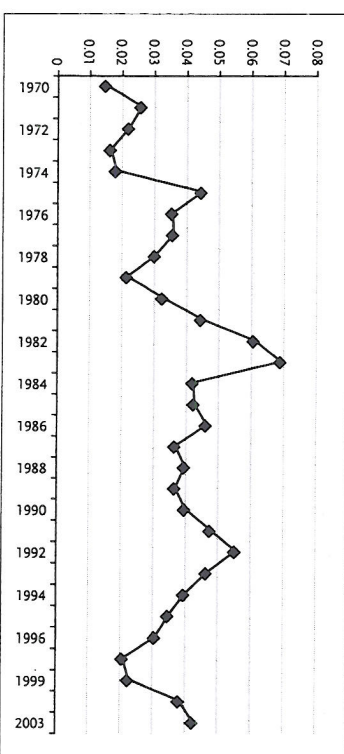


Figure 3.5 Risk of unemployment, male household heads [Source: Authors' calculations of the probability that a man unemployed in year $t-2$ is unemployed when surveyed in year t , using the PSID, 1968-2003]

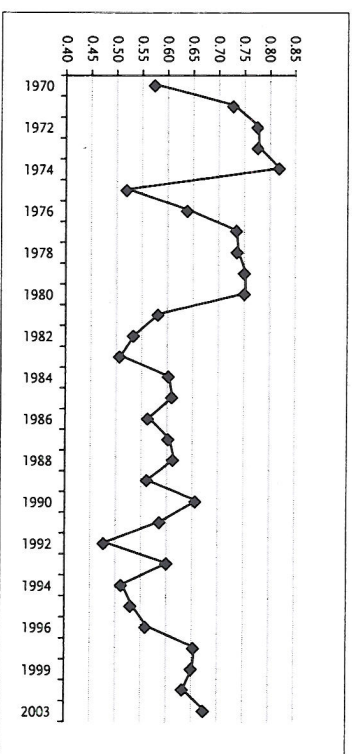


Figure 3.6 Likelihood of returning to work, male household heads [Source: Authors' calculations of the probability that a man unemployed in year $t-2$ is employed when surveyed in year t , using the PSID, 1968-2003]

early 1970s, late 1970s, and late 1990s. For instance, among men unemployed in 1981, 50% were employed in 1983; in contrast, among men unemployed in 1997, 65% had returned to work in 1999. The upward trend in recent years, despite the increased risk of unemployment shown in figure 3.5, indicates that the effects of the 2001 recession on the likelihood of reemployment were relatively modest. Unemployed workers have a harder time finding jobs now than in the late 1970s, but have an easier time than in the 1980s and early 1990s.

Regression analysis allows us to identify how age, race, educational attainment, and the business cycle affect the risk of unemployment and the probability that the unemployed return to work that are shown in figures 3.5 and 3.6. The regression coefficients shown in the tables below

represent deviations from a baseline exit probability. The baseline worker is defined as a white male college graduate between the ages of fifty-one and sixty-two in the early 2000s. A coefficient greater than one indicates that a man with different attributes (e.g., race or age or education) is more likely to experience an exit than a man with the baseline attributes; a coefficient of less than one indicates that the man is less likely to exit.¹⁴

REGRESSION RESULTS

Column 1 of table 3.1 shows the regression results for all male household heads between the ages of twenty and sixty-two. The coefficient for high school dropouts, for example, indicates that the risk of unemployment for dropouts was 3.3 times higher than that of college graduates during any two-year period between 1968 and 2003.¹⁵ High school graduates were 1.9 times more likely and those with some college 1.7 times more likely to exit from work to unemployment than college graduates. The risk of unemployment was twice as high for African Americans as whites. Workers between the ages of twenty and thirty were 3.2 times as likely as workers between the ages of fifty-one and sixty-two (the baseline age group) to exit from employment to unemployment. Workers between the ages of thirty-one and forty were twice as likely to exit and those between forty-one and fifty were 1.5 times as likely as older workers.

Like previous studies, we estimate how the risk of unemployment varies over the business cycle, as measured by the year *t* national unemployment rate. A one percentage point increase in this rate increases a worker's risk of exiting to unemployment by 20.8%. To determine how the risk of unemployment differs by decade, holding the unemployment rate constant, we include indicator variables for the 1970s, 1980s, and 1990s. These indicators identify labor market changes that were independent of business cycle fluctuations. We find an upward secular trend in the risk of unemployment—the coefficients for the 1970s, 1980s, and 1990s indicators are all statistically significant and below one. This means that workers fared better in all three decades than they have during 2001–2003 (the reference years). In the 1970s, the risk of unemployment was only about one-third of the risk in the early 2000s; in the 1990s, the risk was about two-thirds the magnitude of the early 2000s. We estimate regressions for the risk of unemployment separately for each of four educational attainment groups and present the results in columns 2 through 5 of table 3.1. The coefficients in columns 3 and 4 of

	ALL	HIGH SCHOOL DROPOUT	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE
BLACK	2.023** (11.82)	1.694** (5.53)	2.560** (9.71)	2.234** (6.09)	1.575+ (1.69)
AGE 20–30	3.224** (13.08)	4.325** (11.79)	3.074** (6.42)	2.148** (3.35)	1.064 (0.21)
AGE 31–40	2.072** (8.08)	2.213** (6.19)	1.922** (3.59)	2.383** (3.98)	1.154 (0.57)
AGE 41–50	1.526** (4.64)	1.472** (3.03)	1.476* (2.03)	1.668** (2.36)	1.218 (0.78)
HS DROPOUT	3.321** (11.08)				
HS GRADUATE	1.919** (6.22)				
SOME COLLEGE	1.694** (4.71)				
UNEMPLOYMENT RATE	1.208** (10.81)	1.200** (6.67)	1.246** (7.21)	1.236** (4.65)	1.040 (0.67)
1970S	0.367** (9.31)	0.413** (4.08)	0.414** (4.91)	0.460** (3.41)	0.376** (3.04)
1980S	0.549** (5.66)	0.713 (1.56)	0.549** (3.29)	0.450** (3.45)	0.450** (2.60)
1990S	0.682** (3.84)	0.769 (1.25)	0.626** (2.80)	0.698+ (1.81)	0.801 (0.91)
OBSERVATIONS	66539	18277	22135	12598	13529

Source: Authors' calculations using the PSID, 1970–2003. Robust z statistics from standard errors clustered at the individual level in parentheses. Sample is of male household heads, age 20–62, who were employed at interview two years earlier. In column 1, the baseline (omitted) category is a white male college graduate aged 51–62 in 2001–2003. In subsequent columns the baseline is a white male aged 51–62 in 2001–2003. The risk of unemployment is calculated as the probability that a man who was employed in year *t*–2 is unemployed in year *t*. + significant at 10%. * significant at 5%. ** significant at 1%.

Table 3.1 Risk of unemployment, male household heads (logistic regression analysis)

the top row show that the African American males who are high school graduates and have some college have a greater risk relative to that of their white counterparts. Compared to white high school graduates, African American high school graduates are about 2.5 times more likely to exit to unemployment. African American college graduates are 1.6 times as likely as white college graduates to exit.

Figure 3.1 demonstrated that less-educated workers are at higher risk of unemployment due to cyclical shocks than are more-educated workers. This result is supported in the regression analysis. A one percentage point increase in the unemployment rate increases exits to unemployment among dropouts by 20% and by about 24% for both

	ALL	HIGH SCHOOL DROPOUT	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE
BLACK	0.483** (7.70)	0.445** (5.73)	0.542** (3.94)	0.376** (3.98)	1.047 (0.09)
AGE 20-30	1.510** (2.91)	1.353 (1.64)	1.700* (2.04)	1.319 (0.66)	3.539+ (1.74)
AGE 31-40	1.161 (1.02)	1.055 (0.27)	1.128 (0.45)	1.306 (0.67)	2.199 (1.25)
AGE 41-50	1.081 (0.46)	1.404 (1.49)	0.892 (0.40)	1.104 (0.23)	0.694 (0.55)
HS DROPOUT	0.436** (3.26)				
HS GRADUATE	0.576* (2.16)				
SOME COLLEGE	0.752 (1.05)				
UNEMPLOYMENT RATE	0.906** (3.06)	0.864** (3.10)	0.968 (0.57)	0.860+ (1.76)	1.046 (0.31)
1970s	1.720** (2.60)	1.828+ (1.68)	1.441 (1.04)	2.492 (1.64)	1.122 (0.16)
1980s	1.056 (0.26)	1.411 (0.97)	0.715 (1.00)	1.124 (0.25)	0.920 (0.12)
1990s	0.840 (0.91)	0.864 (0.42)	0.706 (1.09)	1.209 (0.41)	1.109 (0.20)
OBSERVATIONS	3714	1658	1222	558	276

Source: Authors' calculations using the PSID, 1970-2003. Robust z statistics from standard errors clustered at the individual level in parentheses. Sample is of male household heads, age 20-62, who were unemployed at interview two years earlier. In column 1, the baseline (omitted) category is a white male college graduate aged 51-62 in 2001-2003. In subsequent columns the baseline is a white male aged 51-62 in 2001-2003. The likelihood of returning to work is calculated as the probability that a man who was unemployed in year *t-2* is employed in year *t*. + significant at 10%; * significant at 5%; ** significant at 1%.

Table 3.2 Likelihood of returning to work, male household heads (logistic regression analysis)

high school graduates and those with some college (columns 2, 3, 4, respectively, table 3.1). In contrast, there is no statistically significant relationship between the unemployment rate and the risk of unemployment for college graduates, who are relatively insulated from business cycle fluctuations (column 5, table 3.1).

Table 3.2 presents regression results parallel to those of table 3.1, except that the dependent variable is the probability that an unemployed worker at the year *t-2* interview had returned to work at the year *t* interview. The first row in column 1 shows that unemployed black men are only about half as likely to return to work as whites. This race effect is large and significant for all education groups except college gradu-

ates (coefficients are below 1.0 and significant in columns 2 through 4, but about 1.0 and not significant in column 5). Thus, holding education constant, black workers have a higher risk of unemployment than white workers (table 3.1), and, except for college graduates, are also less likely to find a new job after having lost one (table 3.2).

Workers between the ages of twenty and thirty are 3.2 times more likely to lose a job than fifty-one- to sixty-two-year-olds (table 3.1, column 1), but are 1.5 times more likely to return to work after experiencing unemployment (table 3.2, column 1). Older unemployed workers may pursue new jobs less aggressively, whether because they have access to early retirement benefits or disability benefits or because they are more disillusioned about their employment prospects.

A one percentage point increase in the national unemployment rate is associated with a 10% decline in the likelihood that an unemployed man returns to work (0.906, column 1). This business cycle effect is concentrated among high school dropouts and those who have completed some college (significant coefficients in columns 2 and 4). The probability that unemployed college graduates return to work does not vary significantly with the unemployment rate.

Unemployed workers in the 1970s were about 70% more likely to return to work two years later than were unemployed workers in 2001-2003. Returns to work in the 1980s and 1990s were not significantly different than in the most recent years.

VARIATIONS IN PREDICTED EXIT PROBABILITIES

We use the regression coefficients from a specification like the one shown in table 3.1, but with separate regressions for whites and blacks, to estimate predicted probabilities of the risk of unemployment for a baseline worker between the ages of twenty and thirty, for a hypothetical year during the 1990s, assuming that the unemployment rate was 6%, the mean for the 1968-2003 period. These results are shown in table 3.3. The baseline probability for a worker in each educational attainment category is shown in the top row of the top panel for white men and the top row of the bottom panel for black men.

The risk of unemployment between two years falls as education increases. White high school dropouts have a risk of unemployment of 8.8%, compared to 1.8% for college graduates. For blacks, the risk of unemployment falls from 19.3% for high school dropouts to 6.3% for

	HIGH SCHOOL DROPOUT	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE
WHITE MALE BASELINE				
Baseline	8.8	3.9	3.3	1.8
Age 31-40	5.2	2.6	3.8	1.8
1970s	5.4	2.5	1.9	1.0
1980s	7.5	3.3	2.5	1.3
2001-2003	12.9	4.1	4.0	2.3
Min. unemployment (3-5)	4.4	1.9	2.3	1.6
Max. unemployment (9-7)	18.9	8.9	5.1	2.0
BLACK MALE BASELINE				
Baseline	19.3	10.4	6.3	*
Age 31-40	9.9	6.4	6.8	*
1970s	10.3	7.3	5.9	*
1980s	18.7	9.5	3.9	*
2001-2003	21.0	22.5	11.0	*
Min. unemployment (3-5)	14.7	6.5	2.5	*
Max. unemployment (9-7)	26.1	17.7	17.5	*

Source: Authors' calculations using PSID, 1970-2003. These use the specification from columns 2-5 of table 3.1 (estimated separately for whites and blacks) to predict exits to unemployment. Sample is restricted to male household heads, age 20-64, who were employed in the interview two years prior. Baseline individual is a male head of household between the ages of 20-30 in the 1990s with the mean unemployment rate over the 1968-2003 period. There are too few black college graduates in the PSID (about 38 per year) to make a meaningful prediction.

Table 3.3 Predicted risk of unemployment, male household heads

those with some college. There are too few black college graduates in the PSID sample to reliably estimate their risk of unemployment.

The racial gap in the risk of unemployment is large—holding education constant, a black worker is about twice as likely to exit to unemployment as a white man. For high school graduates, the risk of unemployment is 10.4% for a young black man and 3.9% for a young white man.

A comparison of the first two rows in each panel of table 3.3 shows that workers ages twenty to thirty have a higher risk of unemployment than those ages thirty-one to forty, for those with a high school degree or less. Among those with some college or a college degree, the age effect is negligible.

Rows 3 through 5 in each panel show how the risk of unemployment varies over recent decades. The risk is highest in the 2001-2003 period and lower in the 1970s and 1980s. For example, the unemployment risk for a young white high school graduate increased from 2.5% in the 1970s to 3.3% in the 1980s to 3.9% in the 1990s to 4.1% in the recent period. For a young black high school graduate, the unemployment risk

over these periods rose from 7.3% to 9.5% to 10.4% to 22.5%.

The bottom two rows in each panel of table 3.3 document that there are large business cycle effects for less-educated workers. An increase in the national unemployment rate from 3.5% to 9.7%—the best and worst rates over the thirty-five-year study period—raises the risk of unemployment from 1.9% to 8.9% for white high school graduates and from 6.5% to 17.7% for black high school graduates.

In table 3.4, we use regression coefficients like those in table 3.2, but estimated separately for white and black men, to compute predicted probabilities of exiting from unemployment back into employment. The baseline worker is again a male household head between the ages of twenty and thirty in the 1990s, evaluated at the mean unemployment rate over the study period. Larger numbers represent better outcomes, indicating the likelihood that a worker who was unemployed at the interview two years ago was working at the current interview.

The most educated are much more likely to return to work than the least educated. For example, 88.8% of unemployed white college graduates return to work compared to 68.5% of high school dropouts. About two-thirds of unemployed blacks with some college, but only 39.6% of black high school dropouts returned to work.

The racial gap in returning to work is large among those with a high school degree or less. Unemployed white high school graduates are twenty percentage points more likely to get a new job than black high school graduates—77.2% compared to 57.3%.

Younger workers are more mobile and move in and out of jobs more often than older workers, especially for less-educated white workers. Among white high school graduates, the probability that an unemployed worker returns to work is 77.2% for those between the ages of twenty and thirty, but only 59.4% for those thirty-one through forty.

The business cycle has its largest effects on the least educated. When unemployment is low, the likelihood that an unemployed high school dropout has returned to work two years later is 75.1% and 50.5%, respectively, for whites and blacks; these rates fall to 59.5% and 27.8%, respectively, when unemployment is high.

MONTHLY TRANSITIONS

The results presented thus far compare a man's employment status at one interview with his status at the interview two years later, ignoring

	HIGH SCHOOL DROPOUT	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE
WHITE MALE BASELINE				
Baseline	68.5	77.2	72.5	88.8
Age 31-40	45.0	59.4	77.6	87.3
1970s	82.9	90.1	85.0	88.9
1980s	79.9	79.0	77.9	85.4
2001-2003	73.8	72.0	68.7	91.0
Min. unemployment (3.5)	75.1	83.3	83.7	87.9
Max. unemployment (9.7)	59.5	68.0	54.2	89.8
BLACK MALE BASELINE				
Baseline	39.6	57.3	65.8	*
Age 31-40	40.1	52.5	59.1	*
1970s	58.2	69.5	80.1	*
1980s	51.3	56.1	56.6	*
2001-2003	42.8	75.4	65.0	*
Min. unemployment (3.5)	50.5	54.3	71.1	*
Max. unemployment (9.7)	27.8	60.8	58.8	*

Source: Authors' calculations using PSID, 1970-2003. These use the specification from columns 2-5 of table 3.2 (estimated separately for whites and blacks) to predict exits to employment. Sample is restricted to male household heads, age 20-65, who were unemployed in the interview two years prior. Baseline individual is a male head of household between the ages of 20-90, in the 1980s with the mean unemployment rate over the 1968-2003 period. There are too few black college graduates in the PSID (about 38 per year) to make a meaningful prediction.

Table 3.4 Predicted likelihood of returning to work, male household heads

any transitions into and out of employment that occurred between interviews. In figure 3.7, we present monthly data, available in the PSID only from 1982 through 1999, to document transitions that occur during the two-year window for men who were employed at both the $t-2$ and t interviews. In the analyses above, these men were considered as not having experienced any employment instability.

The line with diamonds shows the fraction of men employed at both interviews who were unemployed at some point in the interim. This risk of unemployment fell dramatically, from 25% in the deepest recessionary year, 1982, to about 6% in the strongest boom year, 1999. This pattern is similar to the one shown in figure 3.5—between 1982 and 1999, the risk of moving from employment at interview $t-2$ to unemployment at t also fell.

The line with squares in figure 3.7 shows the fraction of men who switched employers during the two years between interviews without experiencing any unemployment. The fraction who switched jobs increased from about 8% over a two-year period in the early 1980s to about 15% in

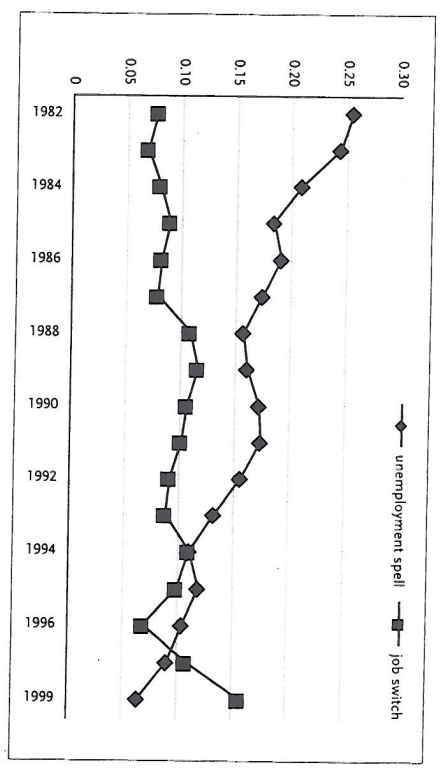


Figure 3.7 Likelihood of unemployment spell or job switch among male household heads employed in both year $t-2$ and year t [Source: Authors' calculations using the PSID, 1968-2003]

1999. These results reflect the business cycle and are consistent with the declines in tenure with a single employer documented by Farber.¹⁶

When we estimate regressions using the 1982-1999 monthly data (not shown), the results are similar to those reported in table 3.1. The risk of experiencing any month of unemployment during a two-year period is higher for African Americans, for those with less education, and for younger workers.

We have analyzed changes in the risk of unemployment and the likelihood that the unemployed return to work using thirty-five years of panel data and documented that the labor market prospects of the disadvantaged worsened relative to those of more advantaged workers. Differences in trends in the employment rate and unemployment rate of low skilled and minority household heads are large. Among male heads of household between the ages of twenty and sixty-two, the gap between the employment rate of college graduates and that of high school dropouts was four percentage points in 1968, but rose to fifteen points in 2003. The racial employment gap also increased over these years from two to nine percentage points.

The risk of unemployment is higher for less-educated and black workers than for college graduates and white workers. The risk of unemployment rises and falls as the economy moves into and out of

recessions. However, the risk, holding the unemployment rate constant, has increased in each decade from the 1970s to the present. Less educated and minority workers face a dual disadvantage in the labor market: they are more likely to lose a job and, at any unemployment rate, are less likely to find a new one.

NOTES

Acknowledgment: Rebecca Blank, Charles Brown, Brian Cadena, Peter Gottschalk, Katherine Newman, Robert Schoeni, and an anonymous referee provided helpful comments on a prior draft; David Ratner provided excellent research assistance. This project was supported in part by funds provided by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, #3 U01 P5000001-05 and #1 U01 A5000002-01. Any opinions and conclusions expressed are solely those of the authors and should not be construed as representing opinions or policy of any agency of the Federal government.

- 1 Rebecca M. Blank, Sheldon Danziger, and Robert Schoeni, "Work and Poverty During the Past Quarter Century," in *Working and Poor: How Economic and Policy Changes are Affecting Low-Wage Workers*, ed. Rebecca M. Blank, Sheldon Danziger, and Robert Schoeni (New York: Russell Sage Foundation, 2006), 1–20.
- 2 Richard B. Freeman, *America Works: Critical Thoughts on the Exceptional U.S. Labor Market* (New York: Russell Sage Foundation, 2007).
- 3 Related studies of employment security are also summarized in David Neumark, ed., *On the Job: Is Long-Term Employment a Thing of the Past?* (New York: Russell Sage Foundation, 2000), and Henry S. Farber, "Mobility and Stability: The Dynamics of Job Change in Labor Markets," in *Handbook of Labor Economics*, ed. Orley Ashenfelter and David Card (London: Elsevier Press, 1999), 2439–83.
- 4 Robert H. Topel and Michael P. Ward, "Job Mobility and the Careers of Young Men," *Quarterly Journal of Economics* 107, no. 2 (1992): 439–79.
- 5 Robert W. Fairlie and Lori G. Klezzer, "Jobs Lost, Jobs Regained: An Analysis of Black/White Differences in Job Displacement in the 1980s," *Industrial Relations* 37, no. 4 (1998): 460–77.
- 6 Francis X. Diebold, David Neumark, and Daniel Polsky, "Job Stability in the United States," *Journal of Labor Economics* 15, no. 2 (1997): 206–33.
- 7 Peter Gottschalk and Robert Moffitt, "Changes in Job Instability and Insecurity Using Monthly Survey Data," *Journal of Labor Economics* 17, no. 4 (1999): s91–s126.
- 8 Robert G. Valletta, "Declining Job Security," *Journal of Labor Economics* 17, no. 4 (1999): s170–s197. For analysis of patterns of involuntary job loss in the PSID, see

Johanne Boisjoly, Greg J. Duncan, and Timothy M. Smeeding, "The Shifting Incidence of Involuntary Job Losses from 1968 to 1992," *Industrial Relations* 37 (April 1998): 207–231.

9 Interviews were conducted annually between 1968 and 1997 and biennially after that date. As a result, we analyze the change in employment status over two-year periods between 1968 and 2003.

10 We do not evaluate work experiences between interviews. That is, some men who worked at both the *t*-2 and *t* interviews were unemployed at some time between these interviews, but are not counted as having exited to unemployment by our interview-to-interview method. For selected years, one can evaluate employment histories between interviews (see Gottschalk and Moffitt, "Changes in Job Instability"). For these years, we present results that are similar to the interview-to-interview results we discuss in the section "Monthly Transitions" beginning on p. 59.

11 See Valletta, "Declining Job Security."

12 Our sample includes men who are between the ages of twenty and sixty-two in each year. Thus, in each year of the thirty-five-year study period, men who were nineteen in the previous year enter the sample and those who were sixty-two age out of the sample. Because the new entrants have completed more years of schooling than the older workers exiting the sample, the average education of the sample and of the workforce increases over time. For example, high school dropouts were 39% of our sample in 1968, but only 13% in 2003; college graduates increased from 15% to 29% of the sample over these years. Thus, while we document that the relative risk of unemployment has increased more for high school dropouts than for more-educated workers, the reader should note that dropouts now represent a much smaller share of the workforce than they did in 1968.

13 These male employment-rate trends in the PSID are similar to those in the Current Population Survey. For example, between 1970 and 1999, among white men between the ages of twenty-five and fifty-four, the employment rate fell by seventeen percentage points for high school dropouts and by five points for men with at least a high school degree, but not a college degree (data not shown; provided to the authors by Deborah Reed, Public Policy Institute of California).

14 We estimate logistic regressions for male household heads in which the dependent variable is 1 if a worker at the time of the *t*-2 interview was unemployed when interviewed two years later. Coefficients are presented as log-odds ratios.

15 The first (*t*-2) year in the PSID is 1968, so the first *t* year in the tables is 1970.

16 See Chapter 1 in this volume. We have estimated regression models similar to those in tables 3.1 and 3.2 that utilize the monthly work history data that are available for the 1982–1999 period. Results are available on request from the authors.