

Jobs Lost, Jobs Regained: An Analysis of Black/White Differences in Job Displacement in the 1980s

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Over the period 1982–1991, black men were considerably more likely to experience job displacement than were white men, and following displacement, the likelihood of reemployment was substantially lower for black men. Using data from the 1984–1992 Displaced Worker Surveys, we find that black men experienced rates of job displacement that were 30 percent higher, and reemployment rates that were 30 percent lower than the corresponding rates for white men. We find that racial differences in education levels and occupational distributions explain part of these racial gaps in job displacement and reemployment, whereas racial differences in industry distributions worked to narrow these gaps.

DURING THE 1980s, millions of workers lost their jobs due to plant closings or large-scale employment reductions. For many of these workers, job displacement was a costly event.¹ Very few studies in the job displacement literature examine whether the incidence and consequences of job displacement differ by race. The importance of studying racial differences in displacement and its consequences is suggested by the nature of changes in the economy since the late 1970s. In particular, there exists a large body of evidence indicating that the demand for labor has shifted away from the skill levels, industries, and geographic locations with relatively large concentrations of black workers (see Holzer, 1994). This economic restructuring that occurred in the 1980s displaced

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¹ See Jacobson, LaLonde, and Sullivan (1993), Stevens (1997), and Kletzer and Fairlie (1997) for evidence of the substantial long-run earnings costs of worker dislocation

many blacks from their jobs and left them with limited opportunities to become reemployed.²

Studies of job displacement generally report that displacement rates are higher, jobless spells longer, and earnings losses larger for racial and ethnic minorities than for whites.³ These racial differences may be generated by observed group differences in the industrial and occupational distribution of employment and differences in individual characteristics such as age, education, and previous job tenure. To date, the literature does not provide an estimate of how much these racial differences contribute to the racial differences in job displacement. The findings, however, in several recent studies that less educated workers, manufacturing workers, and production workers have high rates of job displacement suggest that racial differences in worker/job characteristics may contribute to differences between blacks and whites in job displacement.⁴

In this article we document the large differences between white and black men in displacement rates and reemployment probabilities during the 1980s, and we investigate the underlying causes of racial differences in these two measures. Using data from the 1984–1992 Displaced Worker Surveys (DWS), we examine the role that racial differences in education levels, occupations, and industries, as well as other variables, play in explaining racial differences in job displacement and subsequent reemployment.⁵

We find that in the 1980s, black men were nearly 30 percent more likely to have experienced permanent job loss. Overall, differences in broad worker demographic and labor market characteristics explain just 16 to 18 percent of the racial gap in displacement rates. Of the explained portion, differences in occupation and educational attainment explain a sizable share. In contrast, we do not find evidence suggesting that racial differences in industry explain any part of the gap.

Among our sample of displaced workers, black men were approximately 30 percent less likely than white men to be reemployed at the survey date. Here again, we find occupation and educational attainment to be the most important measurable racial differences for explaining the gap in

² Wilson (1987) describes how the economic restructuring that occurred in large metropolitan areas in the Northeast and Midwest in the 1970s and early 1980s created high rates of black male joblessness and how these high rates of joblessness contributed to many of the social problems experienced by inner-city blacks. See also Kasarda (1989).

³ See Jackson and Montgomery (1986), Kletzer (1991), Ong (1991), Moore (1992), Ong and Mar (1992), and US. GAO (1994).

⁴ See Herz (1991), Podgursky (1992), Farber (1993), and Gardner (1993). See also Fallick (1996) for a survey of the recent literature on job displacement.

⁵ In an earlier paper we examined changes over the 1980s in the racial difference in the incidence of displacement, using a univariate technique (Fairlie and Kletzer, 1996).

the reemployment rate. Black men had a favorable industry distribution that narrowed the gap between their reemployment rate and the white rate.

Measuring displacement

The biennial Displaced Worker Surveys, initiated in January 1984, are our primary data source. A special supplement to the Current Population Survey (CPS), the survey was designed to identify characteristics of displaced workers. In this analysis, we use the 1984, 1986, 1988, 1990, and 1992 surveys. In each survey, individuals in the regular monthly CPS were asked if they had lost a job in the 5 years preceding the January survey date due to “. . . a plant closing, an employer going out of business, a layoff from which he/she was not recalled, or other similar reasons.” If the answer was “yes,” a series of questions followed concerning the old job and period of joblessness.

The analysis sample contains men displaced from full-time private-sector nonagricultural wage and salary jobs by a plant closing or relocation, elimination of position or shift, or layoff without recall (slack work). By conditioning on full-time work, we are removing individuals who have only a weak attachment to the labor force. Therefore, we interpret our estimates of racial differences in the incidence and consequences of job displacement as being lower bounds of the racial differences in these measures for all workers.

An important issue in using the DWSs is recall bias. Recall error arises from the retrospective nature of the survey, where respondents are asked about job losses occurring up to 5 years before the survey date. Problems of recall are compounded by the overlapping coverage of years of displacement by surveys, with some years covered in two or three surveys. There is some evidence that the surveys seriously underestimate job loss occurring long before the survey date.⁶ We address this problem by limiting our sample of displaced workers to those individuals reporting job displacement within a 2-year period prior to each survey date. From the 1984 DWS, we use the 2-year recall period 1982–1983, 1984–1985 for the 1986 DWS, 1986–1987 for the 1988 DWS, 1988–1989 for the 1990 DWS, and 1990–1991 for the 1992 DWS. By limiting the sample in this way, each year from 1982 to 1991 is covered by only one survey, thus eliminating any problems that arise from the overlapping coverage of the DWSs.

⁶ For example, the 1982 estimate of the number of displaced workers from the 1984 DWS is approximately 3 million workers, whereas the 1982 estimate from the 1986 DWS is only 2 million workers. See Topel (1990), Farber (1993), Evans and Leighton (1995), and Fairlie and Kletzer (1996) for discussions of recall bias in the DWSs.

Results

Displacement rates. Were blacks more likely to experience job displacement in the 1980s than whites? In this section we address this question and explore possible explanations for any racial differences that we find. We calculate and compare black and white displacement rates for 2-year intervals preceding the survey date for each of the DWSs. These displacement rates are calculated by dividing the weighted number of workers who report being displaced during the 2 years prior to each survey date by the weighted number of at-risk workers during these 2 years. Because the DWSs do not provide information on whether nondisplaced individuals were working in the 2 years prior to the survey date, we cannot identify all the workers who were at risk of experiencing a job displacement. To address this problem, we estimate the number of at-risk workers for each year from the Current Population Survey (CPS) Outgoing Rotation Annual Merge files.

Table 1 reports black and white displacement rates by age. The reported displacement rates represent the average annual probability of being displaced during the 1982–1991 period.⁷ Black men experienced notably higher levels of job displacement. For the entire sample period, the total black displacement rate was 4.8 percent, almost 30 percent higher than the white rate of 3.8 percent.⁸ Black displacement rates were notably higher than white rates across all age groups, except the oldest age group.

TABLE 1
DISPLACEMENT RATES BY RACE AND AGE (1982–1991)

	Black Men	White Men	Black/White Ratio
Total	4.82%	3.79%	1.272
Age (years)			
20–24	6.26%	4.69%	1.335
25–34	5.58%	4.12%	1.354
35–44	4.07%	3.54%	1.150
45–54	3.79%	3.12%	1.216
55–64	3.18%	3.28%	0.969
Sample size	46725	522586	

Notes: Samples are from the 1984–1992 Displaced Worker Surveys and 1982–1991 CPS Outgoing Rotation Annual Merge Files and include men (ages 20–64) who are working full time in nonagricultural private sector industries; the *displacement rate* is defined as the percentage of at-risk workers experiencing job displacement in the two years prior to the survey date; all calculations use CPS final sampling weights.

⁷ This interpretation is not exact because the DWSs only report one displacement during the 2-year period. Thus workers who are displaced in two consecutive years are counted only once.

⁸ The black displacement rate was at least 15 percent higher than the white displacement rate in every 2-year period from 1982 to 1991 (see Fairlie and Kletzer, 1996).

A possible explanation for the high displacement rate among black men relative to white men is that blacks were more likely to have held the types of jobs (measured by industry, occupation, or skill requirements) that were hit the hardest in the 1980s by plant closures and mass layoffs. We test this hypothesis by using the standard Blinder-Oaxaca decomposition technique to estimate the contribution of racial differences in education levels, occupations, and industries to the black/white gap in the displacement rate (see Blinder, 1973; Oaxaca, 1973).

To perform the decomposition, we first need to estimate the effect of each of these factors on the probability of job displacement. Without information on a sample of nondisplaced workers (as discussed earlier, the DWSs contain information only about displaced workers, not workers at risk of displacement), we cannot estimate a regression for the probability with individual-level data. An alternative approach is to estimate these effects using a cell regression in which the cells are created by a cross-tabulation of the values of the independent variables. We calculate a displacement rate for every cell created by this cross-tabulation and create dummy variables for all possible values of each independent variable. These displacement rates and the values of the dummy variables provide the data for our regressions.

We estimate the following regression for each race j :

$$R_i^j = X_i^j \beta^j + \varepsilon_i^j \quad (1)$$

where $i=1, \dots, C^j$ denotes the cells, R_i^j is the displacement rate for cell i , X_i^j is a row vector of dummy variables for each value of the independent variables, and ε_i^j is the error term. We use the cell sample sizes as weights in weighted least squares (WLS) to estimate the regressions.⁹ The use of cell sample sizes as weights ensures that

$$\bar{R}^j = \bar{X}^j \hat{\beta}^j \quad (2)$$

where \bar{R}^j and \bar{X}^j are the underlying sample averages of R and X , and $\hat{\beta}^j$ are the coefficient estimates. This result is useful for estimating our decompositions of the black/white displacement rate gap.

We decompose the racial gap in the total displacement rate into the part that is due to racial differences in the distributions of the independent

⁹ We treat the weighted number of at-risk workers from the CPS Outgoing Rotation Group files as the sample sizes.

variables and the part that is due to racial differences in the coefficients. The total black/white gap in the displacement rate gap, $\bar{R}^B - \bar{R}^W$, can be written as the following two expressions:

$$(\bar{X}^B - \bar{X}^W) \hat{\beta}^B + \bar{X}^W (\hat{\beta}^B - \hat{\beta}^W) \quad (3)$$

$$(\bar{X}^B - \bar{X}^W) \hat{\beta}^W + \bar{X}^B (\hat{\beta}^B - \hat{\beta}^W) \quad (4)$$

These two decomposition expressions are equally valid, since they differ only in their weights.¹⁰ In both expressions, the first part provides an estimate of how much of the total racial gap in the displacement rate is due to racial differences in worker characteristics, and the second part provides an estimate of how much is due to racial differences in the process determining job displacement. We further decompose the first part of each expression into the separate contributions from racial differences in education levels, occupations, and industries.

The results for the first part of the decompositions (Eqs. 3 and 4) are reported in Table 2. The underlying regression coefficient estimates from Eq. (1) and the mean values of all variables are reported in Appendix 1. To avoid problems arising from extremely small sample sizes for many cells, we are restricted to include only broad year, age, occupation, and industry categories. Thus we include three year categories, two age categories, four education categories, two occupation categories, and five industry categories, creating a total of 240 cells (the exact groupings are listed in Appendix 1). The cell regressions for black and white men provide estimates that are consistent with estimates from previous studies. In general, the probability of displacement decreases with age and education, is lower during periods of economic growth (i.e., 1983–1989), and is higher for blue-collar occupations and in the construction industry.

The estimates reported in Table 2 indicate that racial differences in the independent variables provide varying contributions to the total racial gap in the displacement rate. The contributions from specific variables are estimated fairly precisely using the white coefficients and somewhat precisely

¹⁰ This is the familiar index problem with the Blinder-Oaxaca decomposition technique. Another alternative discussed in Oaxaca and Ransom (1994) is to weight the decomposition expression using coefficient estimates from a pooled sample of blacks and whites. We estimate the decompositions using these coefficients as weights and find results that are similar to those using the white coefficients.

TABLE 2
DECOMPOSITION OF RACIAL GAP IN THE DISPLACEMENT RATE (1982–1991)

I. Displacement Rates				
Black men	0.0479			
White men	0.0378			
Racial gap	0.0101			

II. Contribution of racial differences in the following variables to the displacement rate gap				
	Black Coefficients, Eq. (3)		White Coefficients, Eq. (4)	
	Actual	Percent	Actual	Percent
Controls	0.0005 (0.0002)	5.0%	0.0002 (0.0001)	2.0%
Education levels	0.0014 (0.0012)	13.9%	0.0019 (0.0004)	18.8%
Occupation distribution	0.0011 (0.0007)	10.9%	0.0010 (0.0003)	9.9%
Industry distribution	-0.0013 (0.0003)	-12.9%	-0.0013 (0.0001)	-12.9%
All variables	0.0017 (0.0014)	16.8%	0.0019 (0.0005)	18.8%

Notes: Samples are from the 1984–1992 Displaced Worker Surveys and 1982–1991 CPS Outgoing Rotation Annual Merge Files and include men (ages 20–64) who are working full time in nonagricultural private sector industries; mean values and coefficient estimates for all variables are reported in Appendix 1; controls include age and year of displacement dummy variables; standard errors are reported below estimates (see text for details on calculation).

using the black coefficients.¹¹ Racial differences in age and year of displacement (reported as the controls) do not provide large contributions using either specification. This result is not surprising because black and white men do not differ substantially in their distributions of these variables (see Appendix 1). In contrast, black and white men do have very different levels of education. For example, 23.7 percent of working black men are high school dropouts compared with only 12.4 of whites. At the other end of the educational spectrum, 11.1 percent of black men have college degrees, whereas 25.6 percent of white men have college degrees. These racial differences in educational attainment, when combined with the strongly negative relationship between education and the probability of job displacement, suggest that education will contribute sizably to the racial gap in the displacement rate.¹² This appears to be the case because black/white educational differences explain from 13.4 to 18.7 percent of the gap.

¹¹ The reported standard error for the variable (or group of variables) k is equal to the square root of $(\bar{X}^b - \bar{X}^w) \text{var}(\hat{\beta}^b) (\bar{X}^b - \bar{X}^w)'$ in Eq. (3) and the square root of $(\bar{X}^b - \bar{X}^w) \text{var}(\hat{\beta}^b) (\bar{X}^b - \bar{X}^w)'$ in Eq. (4).

¹² By our estimates, the probability of displacement for college graduates is 0.0109 lower than that for high school dropouts, all else equal (see Appendix 1). Farber (1993) and Boisjoly, Duncan, and Smeeding (1994) also find a negative relationship between educational attainment and the probability of job loss.

There also exist large differences between black and white men in occupational distributions. Due to the limited sample sizes for blacks and the strong correlation between occupations and education levels, we are limited to including only two occupational categories. Specifically, we combine white-collar and service occupations into one category and all blue-collar occupations into the other category. Fifty-nine percent of black men are in blue-collar jobs, whereas 47.7 percent of white men hold blue-collar jobs. Our decomposition estimates indicate that this racial difference explains approximately 10 percent of the total black/white displacement rate gap. These results provide evidence that the higher probability of job displacement among blue-collar workers disproportionately placed black men at a high risk of job displacement in the 1980s.

To check the sensitivity of these results to our broad grouping of occupations, we estimate our regressions and decompositions using an alternative specification, which includes more occupational categories and fewer educational categories.¹³ Using the white coefficients, we find a larger contribution from racial differences in occupations than before, whereas we find a smaller contribution using the black coefficients. The results for education are similar to those reported in Table 2.

In contrast to racial differences in education levels and occupations, racial differences in industrial distributions reduce the total black/white displacement rate gap. The negative decomposition estimates for industry suggest that the racial gap would have been approximately 13 percent higher than it was if black and white men had had similar industry distributions in the 1980s. Thus black men were overrepresented in low-displacement-rate industries. A careful examination of the coefficient estimates and mean values reported in Appendix 1 reveals that the construction industry is largely responsible for this result. Black men were less likely to be employed in construction than white men, and this industry had a larger positive effect on the probability of job displacement than any other industry. We also find similar results when we estimate a specification with more disaggregated industries.

These results clarify two points. We do not find evidence supportive of the hypothesis that blacks faced a higher risk of job loss than whites during the 1980s because they were concentrated in declining industries, in particular manufacturing. In terms of job displacement, industry of employment was a favorable job characteristic for black men at the

¹³ We include two educational categories (college graduates and all other education levels) and four occupational categories (white collar, skilled blue collar, semiskilled blue collar, and service).

national level.¹⁴ In comparison, we find support for the hypothesis that demand shifts away from less skilled workers (measured as education and occupation) possibly from changes in international trade and technology hurt blacks disproportionately in the 1980s. Jobs requiring lower levels of skill traditionally have been ones sensitive to economic downturns and restructuring.

The last row in Table 2 provides estimates of the total contribution from racial differences in the independent variables. These estimates indicate that slightly less than 20 percent of the total displacement rate gap can be explained by racial differences in worker/job characteristics. The remaining part of the gap is due to racial differences in the process determining job loss and in unmeasurable variables. Location is one potentially important variable left out of our analysis. Data limitations in the DWSs do not allow examination of the role of location (region and central city status), because these variables are observed only at the survey date and not at the time of displacement. Information on location would allow examination of the question of whether blacks were disadvantaged in job loss by their concentration in central cities and by the extent of manufacturing job loss that occurred in older central city plants (see Wilson, 1987).

Another factor that may contribute to the unexplained portion is racial discrimination in employer layoff decisions. Although we cannot identify its exact contribution to the black/white displacement gap, we can examine racial differences in the type of displacement (i.e., plant closing, position abolished, or layoff without recall) for some suggestive evidence. If we follow Gibbons and Katz (1991) and assume that firms have discretion about whom to lay off and little or no discretion in regard to whom will be displaced by a plant closing, we can examine racial differences in the two measures to provide evidence on discrimination. After using a regression to control for racial differences in all the variables listed in Appendix 1, we find that blacks face a higher probability of job loss due to layoff or position abolished but face a similar probability of job loss due to plant closing. These results suggest that where employers can exercise considerable discretion, and where that discretion may be discriminatory, blacks face a higher probability of job loss than otherwise equivalent whites.¹⁵

¹⁴ We note that the hypothesis in Wilson (1987) of a job loss–industry link is focused toward minorities in large urban centers. Our analysis is at the national level, given information available in the Displaced Worker Surveys.

¹⁵ Collective bargaining agreements usually contain layoff-by-seniority rules that greatly reduce employer discretion. The DWS does not provide information on union or collective bargaining status. Gibbons and Katz (1991) restrict their sample to white-collar workers to address this issue. Relatively small black sample sizes do not allow us to similarly restrict our sample.

We view these results, however, as speculative and acknowledge that they require further investigation.

Postdisplacement reemployment probabilities. For many workers, adjusting to permanent job loss can be difficult, with low probabilities of reemployment, long jobless durations, and sizable earnings losses. Previous studies have found lower reemployment likelihoods for blacks than for whites but have not investigated the contribution of differences in worker/job characteristics to the racial gap. In this subsection we document and identify the causes of the black/white gap in the postdisplacement reemployment rate.

We define the reemployment rate in this analysis as the percentage of displaced workers who are employed at the survey date. We calculate reemployment rates for black and white men who report a job loss within 2 years of each DWS. For the period 1982–1991, black displaced workers were approximately 30 percent less likely than whites to be employed at the survey date, with a reemployment rate of 0.435 as compared with a white rate of 0.609.¹⁶

To identify the causes of this large gap, we estimate the decomposition equations (Eqs. 3 and 4) for reemployment.¹⁷ We estimate the coefficients used in Eq. (3) and Eq. (4) from a weighted linear probability regression in which the dependent variable equals 1 if the individual is employed at the survey date and equals 0 otherwise.¹⁸ We report the results of the decomposition in Table 3. Coefficient estimates and mean values of the independent variables are reported in Appendix 2. The decomposition estimates indicate that racial differences in some of the explanatory variables provide important contributions to the black/white reemployment rate gap. In general, the decomposition estimates are estimated precisely, especially in the decomposition equation using white coefficients.

As found in previous studies, education is positively related to the probability of reemployment. The estimated coefficients increase monotonically with education for both blacks and whites, and the effects are large, particularly for blacks. For example, having a college degree increases the probability of reemployment by 0.325 for blacks and 0.116 for whites over the high school dropout baseline, all else equal. With the

¹⁶ The black reemployment rate was lower than the white rate for each 2-year period from 1982 to 1991 (see Fairlie and Kletzer, 1996).

¹⁷ Although not reported, we also estimate the decomposition using coefficients from a pooled regression. The estimates are similar to the estimates using the white coefficients.

¹⁸ To address the issue of heteroskedasticity in the linear probability model, we use the weighted least squares (WLS) procedure described in Maddala (1983, p 16).

TABLE 3
DECOMPOSITION OF RACIAL GAP IN THE REEMPLOYMENT RATE (1982–1991)

I. Reemployment rates				
Black men	0.4379			
White men	0.6165			
Racial gap	0.1786			
II. Contribution of racial differences in the following variables to the reemployment rate gap				
	Black Coefficients, Eq. (3)		White Coefficients, Eq. (4)	
	Actual	Percent	Actual	Percent
Controls	0.0125 (0.0056)	7.0%	0.0048 (0.0017)	2.7%
Education levels	0.0293 (0.0073)	16.4%	0.0103 (0.0019)	5.8%
Occupation distribution	0.0100 (0.0088)	5.6%	0.0139 (0.0029)	7.8%
Industry distribution	-0.0050 (0.0073)	-2.8%	-0.0075 (0.0018)	-4.2%
Advance notice	0.0021 (0.0017)	1.2%	0.0005 (0.0005)	0.3%
Type of displacement	0.0144 (0.0047)	8.1%	0.0068 (0.0014)	3.8%
All variables	0.0633 (0.0141)	35.4%	0.0288 (0.0039)	16.1%

Notes: The sample is from the 1984–1992 Displaced Worker Surveys and includes men (ages 20–64) who were displaced from full-time jobs in nonagricultural private-sector industries; mean values and coefficient estimates for all variables are reported in Appendix 2; controls include age, age squared, tenure, tenure squared, and year of and time since displacement dummy variables; standard errors are reported below estimates (see text for details on calculation).

sizable impact of education in determining reemployment probabilities, it is not surprising that we find that racial differences in educational attainment provide the largest contribution among the explanatory variables to the black/white reemployment rate gap: 16.4 percent using the black coefficients and 5.8 percent using the white coefficients.

Racial differences in our other measure of skill, occupation, also contribute to the gap in reemployment. The estimated contribution ranges from 5.6 to 7.8 percent. The positive contribution is mainly due to the overrepresentation of blacks in semiskilled blue-collar occupations that have low reemployment probabilities and the underrepresentation of blacks in white-collar occupations that have high reemployment probabilities. In contrast to the results for education and occupation, we find blacks had a slightly favorable industry distribution relative to whites. These effects, however, are not large.

Similar to the findings for job displacement, the black educational and occupational distributions were relatively disadvantaged in terms of reemployment, whereas the black industrial distribution was relatively

advantaged. Again, these results provide evidence supporting the hypothesis that demand shifts away from less skilled workers hurt blacks disproportionately in the 1980s. With increasing skill requirements, many blacks may not have the requisite skills to become reemployed in the changing economy.

A number of previous studies have found that the receipt of advance notice has only a small effect on the reemployment prospects of displaced workers (see Ruhm, 1992, for example). Consistent with these findings, we find small positive and statistically insignificant coefficients on this variable in the reemployment regressions (see Appendix 2). In addition, displaced white men are only slightly more likely to receive advance notification (49.8 percent) than displaced black men (44.8 percent). The result is that the racial difference in advance notice explains essentially none of the gap in reemployment.

We find that the type of displacement experienced (e.g., plant closing, position abolished, or layoff without recall) has an important effect on the reemployment probability for both blacks and whites. White and especially black workers displaced by a layoff have a much lower reemployment probability than those displaced by a plant closing, all else equal. This result may be due to delayed job search prompted by expectations of recall. It is also consistent with the asymmetric information model of Gibbons and Katz (1991). In that model, the market infers that laid-off workers are of low ability given firms' discretion about whom to lay off. In contrast, the market makes no inferences about workers displaced by plant closings because firms have no discretion in regard to whom will be displaced by a plant closing. Gibbons and Katz find longer postdisplacement jobless spells for laid-off workers. The racial difference reported here may suggest that employers weigh the negative signal of layoff without recall more heavily in their employment decisions for blacks.

In the decomposition, black/white differences in type of displacement explain from approximately 4 to 8 percent of the racial gap in the reemployment rate. This is due to the higher percentage of blacks losing their job due to layoff, possibly due to employer discrimination, and the large negative effect of this variable on the probability of reemployment. The negative effect of losing a job due to layoff without recall has larger consequences for blacks; thus the variable makes a larger contribution using the black coefficients than with the white coefficients.

The interpretation and inclusion of type of displacement in the decomposition are somewhat problematic. Our finding of a large positive contribution from racial differences in this variable may partially represent the presence of labor market discrimination, which shows up in both layoff

and hiring practices. Thus we estimate additional regressions and decompositions without this variable as a robustness check of our results. The results are reported in Table 4. Racial differences in the controls, education levels, occupations, industries, and receipt of advance notice all provide similar contributions to the black/white gap in the reemployment rate. The only major change from the removal of type of displacement is that the total explained portion of the gap is now smaller. Therefore, our conclusions regarding the importance of education, occupation, and industry in explaining the racial gap in reemployment remain the same.

The control variables in this analysis include age, age squared, predisplacement job tenure, and year of and time since displacement dummy variables. Racial differences in these variables account for a small part of the gap. Although not reported, we examine the separate contributions from racial differences in the age and tenure distributions of displaced workers. We find very small contributions for these variables. These findings are not surprising, however, since an inspection of the estimates reported in Appendix 2 reveals that racial differences in these variables are not large among displaced workers.

TABLE 4
DECOMPOSITION OF RACIAL GAP IN THE REEMPLOYMENT RATE (1982–1991)
(Excludes Type of Displacement)

I. Reemployment Rates				
Black men	0.4379			
White men	0.6165			
Racial gap	0.1786			
II. Contribution of racial differences in the following variables to the reemployment rate gap				
	Black Coefficients, Eq. (3)		White Coefficients, Eq. (4)	
	Actual	Percent	Actual	Percent
Controls	0.0141 (0.0056)	7.9%	0.0053 (0.0017)	3.0%
Education levels	0.0286 (0.0065)	16.0%	0.0103 (0.0019)	5.8%
Occupation distribution	0.0110 (0.0088)	6.2%	0.0143 (0.0029)	8.0%
Industry distribution	-0.0060 (0.0074)	-3.4%	-0.0085 (0.0018)	-4.8%
Advance notice	0.0022 (0.0018)	1.2%	0.0007 (0.0005)	0.4%
All variables	0.0499 (0.0132)	27.9%	0.0222 (0.0037)	12.4%

Notes: The sample is from the 1984–1992 Displaced Worker Surveys and includes men (ages 20–64) who were displaced from full-time jobs in nonagricultural private-sector industries; mean values for all variables are reported in Appendix 2; controls include age, age squared, tenure, tenure squared, and year of and time since displacement dummy variables; standard errors are reported below estimates (see text for details on calculation).

Although not reported, we also estimate a specification that includes regional controls as an additional robustness check. We do not include these variables in the main specification because locational questions are asked at the time of the survey and not at the time of displacement. Therefore, individuals who move across regions after displacement but prior to the time of the interview are misclassified. The contribution estimates suggest that blacks had a favorable regional distribution relative to whites with respect to reemployment. More important, our results for the other variables are not overly sensitive to the inclusion of the regional controls.

The decomposition estimates reported at the bottom of Tables 3 and 4 indicate that a large part of the black/white gap in reemployment remains unexplained by racial differences in the included variables. Apparently, racial differences in types of jobs, measured by industries, occupations, and educational requirements, cannot provide a complete accounting of why displaced black male workers experienced much more difficulty finding employment than displaced whites. Similar to our findings for job displacement, other factors contribute substantially to the gap. These factors may include racial differences in other measures of skill and the overrepresentation of blacks in central cities, both unmeasurable in the DWSs. Racial discrimination in hiring practices also may play a role. Audit pair studies in which blacks and whites are matched to have similar employment records and skills provide additional evidence of hiring discrimination (see Turner, Fix, and Struyk, 1991, for example).

Conclusions

Over the period 1982–1991, black men were considerably more likely to experience job displacement than were white men, and following displacement, the likelihood of reemployment was substantially lower for black men. Our analysis of the 1984–1992 Displaced Worker Surveys finds that black men experienced rates of job displacement that were 30 percent higher and reemployment rates that were 30 percent lower than the corresponding rates for white men. Several variables play important roles in explaining these racial differences in the incidence of job displacement and in the likelihood of reemployment following displacement. First, black men were more concentrated in less skilled jobs (measured by occupation) than white men in the 1980s. Partly because these types of jobs experienced widespread permanent job loss in the 1980s, blacks suffered higher levels of job displacement than whites. In addition, the changing composition of available jobs in the 1980s made it

especially hard for black displaced workers (partly because of their lower skill levels) to find reemployment.

Education is another dimension of skill that plays a role in accounting for black/white differences in job displacement and its consequences. In general, we find that displacement rates decrease with educational attainment, whereas reemployment rates increase with educational attainment. Blacks in our sample have substantially lower levels of educational attainment than whites. Therefore, it is not surprising that racial differences in educational levels account for a large part of the gap in both displacement and reemployment. Less educated workers face a number of disadvantages relative to their more educated counterparts: less job security through high displacement rates and, conditional on displacement, more difficulty in becoming reemployed.

In comparison with our findings for racial differences in skill levels, measured as occupation and education, we find that racial differences in industry distributions do not explain part of the racial gap in the levels of job displacement and postdisplacement reemployment. In particular, we find that blacks had a slightly favorable industry distribution over the period that helped to decrease their displacement rates and to increase their reemployment probabilities relative to whites. At the national level, black men were not overrepresented in the industries that suffered high rates of job displacement and subsequent negative outcomes in the 1980s.

The large part of the displacement and reemployment gaps that remain unexplained dictate the need for further research. The Displaced Worker Surveys have clear limitations for the study of racial discrimination in separation and employment, and they do not provide detailed information for studying localized effects of the decline of manufacturing in large urban centers, as suggested by Wilson (1987). Alternative data sources, such as longitudinal surveys, state-level administrative data, and case studies, need be explored for their usefulness in understanding questions about the sources of racial differences in displacement and its consequences.

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APPENDIX 1
 MEAN VALUES AND COEFFICIENT ESTIMATES FOR DECOMPOSITION
 OF RACIAL GAP IN THE DISPLACEMENT RATE (1982–1991)

Variable	Black Men			White Men		
	Weighted Mean	Coefficient Estimate	Standard Error	Weighted Mean	Coefficient Estimate	Standard Error
Intercept	1.0000	0.0703	0.0090	1.0000	0.0512	0.0040
Years 1984–1989	0.6132	–0.0288	0.0064	0.6079	–0.0164	0.0023
Years 1990–1991	0.2198	–0.0186	0.0075	0.2073	–0.0045	0.0028
Ages 35–64	0.4879	–0.0222	0.0048	0.5285	–0.0081	0.0018
High school graduate	0.4524	–0.0055	0.0060	0.4112	–0.0092	0.0029
Some college	0.1988	0.0011	0.0073	0.2084	–0.0057	0.0033
College graduate	0.1113	–0.0109	0.0090	0.2564	–0.0153	0.0034
Blue collar	0.5965	0.0093	0.0058	0.4774	0.0088	0.0022
Construction/mining	0.0876	0.0420	0.0100	0.1202	0.0388	0.0034
Manufacturing	0.3565	0.0144	0.0069	0.3479	0.0070	0.0026
Transportation	0.1217	–0.0039	0.0086	0.1061	–0.0045	0.0034
Trade	0.1947	–0.0010	0.0072	0.2042	–0.0006	0.0028
Sample size	240	240		240	240	

Notes: Samples are from the 1984–1992 Displaced Worker Surveys and 1982–1991 CPS Outgoing Rotation Annual Merge Files and include men (ages 20–64) who are working full time in nonagricultural private-sector industries; coefficient estimates are from a weighted least squares (WLS) cell regression (see text for details); the omitted categories are years 1982–1983, less than high school, services industry, and white collar and service occupation.

APPENDIX 2
MEAN VALUES AND COEFFICIENT ESTIMATES FOR DECOMPOSITION
OF RACIAL GAP IN THE REEMPLOYMENT RATE (1982–1991)

Variable	Black Men			White Men		
	Weighted Mean	Coefficient Estimate	Standard Error	Weighted Mean	Coefficient Estimate	Standard Error
Intercept	1.0000	0.4310	0.2361	1.0000	0.1796	0.0761
Age	34.1212	-0.0044	0.0123	36.2951	0.0219	0.0037
Age squared	1159.1100	0.0001	0.0002	1444.3300	-0.0003	0.0000
Tenure	4.5636	-0.0037	0.0076	4.8988	-0.0002	0.0023
Tenure squared	60.4333	0.0001	0.0003	69.8052	-0.0002	0.0001
High school graduate	0.4504	0.0801	0.0433	0.4402	0.0631	0.0171
Some college	0.2152	0.1242	0.0547	0.2180	0.1034	0.0196
College graduate	0.0784	0.3256	0.0807	0.1698	0.1163	0.0218
Position abolished	0.0851	-0.0441	0.0741	0.1347	-0.0263	0.0169
Layoff w/o recall	0.5849	-0.1575	0.0421	0.4793	-0.0770	0.0127
Advance notice	0.4482	0.0430	0.0353	0.4977	0.0098	0.0109
Mining	0.0083	-0.0950	0.1740	0.0457	-0.1001	0.0313
Construction	0.1410	-0.0377	0.0768	0.1924	-0.0683	0.0232
Nondurable goods mfg.	0.1487	0.0075	0.0785	0.0870	0.0100	0.0247
Durable goods mfg.	0.2640	-0.0226	0.0722	0.2739	-0.0314	0.0208
Transportation	0.0926	-0.0850	0.0824	0.0778	-0.0397	0.0263
Trade	0.1600	-0.0133	0.0751	0.1654	0.0016	0.0210
Professional	0.0709	0.0209	0.0976	0.0694	-0.0423	0.0257
White collar	0.2246	-0.0047	0.0794	0.3512	0.0390	0.0301
Skilled blue collar	0.2167	0.0226	0.0791	0.3032	0.0225	0.0310
Semiskilled blue collar	0.4686	-0.0540	0.0731	0.3083	-0.0440	0.0308
Sample size	706	704		6515	6509	

Notes: The sample is from the 1984–1992 Displaced Worker Surveys and includes men (ages 20–64) who were displaced from full time jobs in nonagricultural private-sector industries; coefficient estimates are from a WLS linear probability model (see text for details); the omitted categories are less than high school, plant closing, services industry, and service occupation; regression equations also include year of and time since displacement dummy variables.