

**WORKERS' RECALL EXPECTATIONS AND
THEIR IMPLICATIONS FOR WORKER PROFILING**

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June 2001

Abstract

Temporary layoffs are an important feature of the U.S. labor market. The importance of recalls highlights the relevance of employer-employee relationships. To avoid breaking valuable job matches, the profiling model for targeting claimants for services in the new Worker Profiling and Re-employment Services (WPRS) systems excludes claimants who have a specific date of recall or are members of unions using hiring halls. However, many laid-off workers who do not have a definite recall date expect to be rehired by their former employers. This paper reviews the empirical facts about laid-off workers. Then, using the Displaced Workers Supplement to the Current Population Survey, it presents new evidence that laid-off workers have longer unemployment spells than observationally similar workers who are less likely to expect to be recalled. The paper then explores the policy implications of this differential search behavior between workers expecting to be recalled and those not expecting to be recalled and concludes by presenting an alternative profiling model.

KEYWORDS: Recall expectations, unemployment, worker profiling, and reemployment services

JEL Classification Numbers: J63, J64, J65

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I. Introduction

In the United States, a large share of laid-off workers—between 30 and 75 percent—will eventually return to the original employer (Lilien, 1980; Katz, 1986; Anderson and Meyer, 1994). The Mass Layoff Statistics program, sponsored by Bureau of Labor Statistics, reports that 68 percent of employers reporting a layoff in second-quarter of 1998 indicated that they expected some type of recall. It also reports that among all establishments expecting to recall workers, most employers expected to recall more than one-half of the separated employees within six months.

To avoid breaking valuable job matches, the first stage of the two-step profiling model for targeting claimants for services in the new Worker Profiling and Re-employment Services (WPRS) systems excludes claimants who have a specific date of recall to their previous employer or are members of unions using hiring halls. However, this step does not guarantee that all permanent job matches will be protected because many claimants without a specific recall date or who do not obtain jobs through union hiring halls yet are recalled to their former job (Corson and Dynarski, 1990; Katz and Meyer, 1990). In addition, many of the claimants currently targeted by the standard two-step profiling process may not be searching for a new job immediately after displacement and thus may not respond to certain reemployment services. The lack of response occurs for the following two reasons. First, many claimants without a definite recall date expect to be recalled by their previous employer, and, second, workers who expect to be recalled by their former employer search less than those who do not expect to be recalled. As a result, workers who expect to be recalled at displacement, but who *ex-post* are *not* recalled, tend to have longer unemployment spells than those who do not have recall expectations at

displacement.¹

This paper uses data from the 1988–1992 Displaced Workers Supplement (DWS) to the Current Population Survey (CPS) to explore whether displaced workers' new-job search behavior is tied to their recall expectations. The empirical evidence supports the hypothesis that laid-off workers have longer unemployment spells than workers who do not expect to be recalled at displacement. Given that the 1988–1992 DWS does not ask displaced workers about their recall expectations, the analysis compares job search behavior of workers who both lose their job owing to insufficient work or elimination of a shift or position (usually defined in the literature as laid-off workers) and tend to have positive recall expectations with job search behavior of workers who lose their job because the plant or company closed down or moved. The underlying assumption is that workers displaced through plant closings cannot be rehired by their former employer and are most likely *not* to expect a recall.² Using semiparametric proportional hazard-model techniques and controlling for observable characteristics, the paper finds that laid-off workers have significantly longer unemployment spells than observationally similar workers who are displaced through plant closings. Thus, the paper points to evidence that recall expectations depress the new-job search behavior of displaced workers.

Workers displaced from unionized or blue-collar jobs are more likely to be covered by collective-bargaining agreements than workers displaced from nonunionized or white-collar jobs. Accordingly, workers displaced from unionized or blue-collar jobs are more likely to have more accurate recall expectations than workers displaced from non-unionized or white-collar jobs.

¹ Katz (1986); Katz and Meyer (1990); Gibbons and Katz (1991); Anderson (1992).

² After 1994, the DWS asked workers whether they expected to be recalled to their former employer. However, this question was asked only of those workers who had been displaced during the previous year and had lost their job either because of slack work or elimination of a shift or position. Because the question on recall expectations was asked only to a subsample of the DWS, the paper focuses on laid-off workers versus workers displaced through plant closings.

Since the depressing effect of recall expectations on new-job search behavior should be directly related to the inaccuracy of the recall expectations, it is reasonable to expect a larger depressing effect of the recall expectations on new-job hazard rate for workers displaced from nonunionized or white-collar jobs than for those displaced from unionized or blue-collar jobs. The empirical evidence presented in this paper also supports this hypothesis.

The rationale behind profiling is that offering reemployment services to those claimants more susceptible to taking advantage of such services may well reduce the average unemployment insurance (UI) benefit payments and thereby increase the cost-effectiveness of services. However, if displaced workers' new-job search behavior is strongly tied to their recall expectations, then targeting reemployment services to laid-off workers most likely to exhaust UI benefits may not be optimal because workers with high recall expectations are not searching for a new job and likely will not respond to reemployment services.³ For instance, O'Leary, Decker, and Wandner (1997) explore whether the use of a profiling model to target reemployment bonus offers to claimants most likely to exhaust their benefits yields larger reemployment bonus impacts for the targeted versus nontargeted group. They find that using a higher probability of UI exhaustion does not necessarily translate into a larger UI reduction. A possible explanation is that many workers with a high probability of UI exhaustion are not necessarily searching for a job but rather are awaiting recall while unemployed. If so, a reemployment bonus may not affect their new-job hazard rates such that targeting workers with a high probability of UI exhaustion may not be optimal. Therefore, improvements in the reduction of UI receipt may well occur if reemployment services are targeted to those laid-off workers less likely to expect a recall in addition to those most likely to exhaust UI.

II. Empirical Evidence on Laid-Off Workers

In the United States, a large share of laid-off workers—between 30 and 75 percent—will eventually return to the original employer. Lilien (1980) uses data from the Bureau of Labor Statistics (BLS) to show that about three-quarters of the workers laid off in manufacturing during the 1970s were rehired by their former employers. Katz (1986) finds that rehiring is also widespread outside manufacturing. Moreover, Anderson and Meyer (1994) calculate that 28 percent of turnover is temporary (defined as temporary layoffs plus recalls). Further, the Mass Layoff Statistics program, also sponsored by BLS, reports that 68 percent of employers reporting a layoff in second-quarter 1998 indicated that they expected some type of recall. The program also reports that, among all establishments expecting to recall workers, most employers expected to recall more than one-half of the separated employees within six months.

The importance of recalls in the United States highlights the relevance of employee-employer relationships. As indicated by Parsons (1986),

Firms may have relatively heavy investments in their employees. Hiring costs (advertising, interviewing, etc.), and screening costs will be incurred if new workers are to be attracted to the firm. Over time a new worker will learn about the nature of the firm's markets or individual customers, as well as the reliability of suppliers of various factors. These investments are specific to the unique match between a firm and a worker. The measurement of these job specific investments in the work force is imprecise since most costs are indirect. Nonetheless the few management studies suggest that the investment costs are substantial.

(continued)

³ Workers with high recall expectations may well have long unemployment spells (as found in this paper), especially if ex-post they are not recalled.

To avoid breaking valuable job matches, the profiling model for targeting claimants for services in the new Worker Profiling and Re-employment Services (WPRS) systems does not usually target job-attached UI claimants but rather targets claimants who do not have a definite recall date. However, because many laid-off workers who do *not* have a definite recall date are rehired by their original employer, the practice of not targeting workers with a specific date of recall to their previous employer does not guarantee the protection of all permanent job matches. Using a national sample of UI claimants, Corson and Dynarski (1990) find that 78 percent of those workers who did not have a specific recall date were indeed rehired by their former employer. Using a sample of UI recipients from Pennsylvania and Missouri, Katz and Meyer (1990) find that 63 percent of those workers who did not have a specific recall date were also rehired by their former employer. In addition, many of the claimants currently targeted by the standard two-step profiling process may not be searching for a new job immediately after displacement and thus may not respond to certain reemployment services.

The absence of response occurs for two reasons. First, many claimants without a definite recall date expect to be recalled by their previous employer. Katz and Meyer (1990) find that although only 18 percent of their sample of UI claimants had a definite recall date, 75 percent expected to be recalled at the time of the UI claim. In the New Jersey Reemployment bonus conducted in the mid-1980s, 40 percent of workers eligible for bonus—and with no definite recall date—expected to be recalled. Second, workers who expect to be recalled by their former employer search less than those who do not expect to be recalled. Katz and Meyer (1990) find that 52 percent of workers expecting a recall search for a new job while unemployed compared with 83 percent of workers not expecting a recall. Moreover, among those who do search for a new job, laid-off employees expecting to return to their former employer search 3.6 hours per week less than those with no expectations of returning to the former job. As a result, workers who expect to be recalled at displacement, but who ex-post are not recalled, tend to

experience longer unemployment spells than those who do not have recall expectations at displacement. Katz and Meyer (1990) find that workers who expected to be recalled when they got displaced but were not recalled subsequently tend to endure long unemployment spells. They find that although this group accounts for only 21 percent of their entire sample of UI recipients, it represents approximately 34 percent of first spells of unemployment. After controlling for observable characteristics, Katz and Meyer discover that laid-off workers who expect to be recalled but take new jobs tend to have much longer unemployment spells than observationally equivalent workers who did not expect to be recalled at the time of layoff. Similarly, Anderson (1992) finds that those workers who expect to be recalled have significantly lower new-job hazard rates than observationally equivalent workers who do not expect to be recalled.

III. Unemployment Duration and Cause of Displacement

This section uses data from the 1988–1992 Displaced Workers Supplement to the Current Population Survey to explore whether laid-off workers’ new-job search behavior is tied to their recall expectations. Since workers who expect to be recalled by their former employer search less than those who do not expect to be recalled, it is reasonable to project that those workers who expect to be recalled at displacement--but, in fact, are not recalled--experience longer unemployment spells than those who do not have recall expectations at displacement.

Two papers have found empirical evidence that workers who expect to be recalled at displacement but are not recalled subsequently endure longer unemployment spells than workers who do not have recall expectations at displacement (Katz and Meyer, 1990; Anderson, 1992). Both papers focus on workers displaced from one or two states. The present paper expands on the empirical analysis to a national sample and to different subgroups of workers.

Given that the 1988–1992 DWS does not ask displaced workers about their recall expectations, the analysis compares job search behavior of workers who both lose their job because of insufficient work or elimination of a shift or position (usually defined in the literature as laid-off workers) and tend to have positive recall expectations with job search behavior of workers who lose their job because the plant or company closed down or moved. The underlying assumption is that workers displaced through plant closings cannot be rehired by their former employer and therefore are most likely *not* to expect a recall.⁴

III.1. Data Description

The current research examined a pooled sample of male workers between the ages of 20 and 61 who were permanently displaced from a private sector, full-time, nonagricultural job because of a plant closing, slack work, or elimination of a position or shift.⁵ In an attempt to identify a sample of workers who did not return to their previous jobs, the study focuses on permanently displaced workers. Like Gibbons and Katz (1991), the research classified as laid-off workers those displaced because of slack work or elimination of a position or shift.⁶ Workers displaced from construction jobs were eliminated from the sample because of the difficulty

⁴ After 1994, the DWS asked workers whether they expected to be recalled to their former employer. However, this question was asked only of those workers who had been displaced during the previous year and had lost their job either because of slack work or elimination of a shift or position. Because the question on recall expectations was asked only of a subsample of the DWS, the research focuses on laid-off workers versus workers displaced through plant closings.

⁵ The study does not include agricultural workers because they tend to have a large number of jobs with a pronounced seasonal pattern. Like Gibbons and Katz, the research—in an attempt to identify a sample of workers with a strong attachment to the labor force—focuses on males displaced from full-time jobs. Moreover, the information content that prospective employers infer from observing female workers' employment movements is considerably more complex than that of male workers. For instance, U.S. society understands that women may want to leave the labor force while they have small children; however, such a choice is not as well understood when taken by a man.

⁶ If a worker lost more than one job in the five years before the survey, the survey questions refer to the lost job he or she had held the longest.

associated with formulating an appropriate definition of permanent displacement from a construction job.

The data restriction on the availability of all required variables leaves a sample of 1,664 workers displaced through plant closings and 1,522 laid-off workers who do not return to the former employer. Table 1 presents basic descriptive statistics for the sample of permanently displaced workers. Workers displaced through plant closings have, on average, significantly longer predisplacement tenure (1.75 more years) than laid-off workers. This finding suggests that seniority rules may be important in the layoff decision. Furthermore, workers displaced through plant closings have, on average, a significantly higher probability of finding a new job without an intervening unemployment spell (17 percent do not suffer unemployment compared with only 9.5 percent of the sample of workers displaced through layoffs) and shorter initial spells of unemployment (0.97 fewer weeks) than workers displaced by layoffs). Given that unemployment duration usually increases with predisplacement tenure, the fact that laid-off workers have longer unemployment spells than workers displaced through plant-closings--despite their shorter tenure--suggests that their incentive to remain unemployed may be greater than that of workers displaced through plant closings. Finally, compared with laid-off workers, workers displaced through plant closings are older, more experienced, and less educated. In addition, a larger percentage of them receive advance notice, and a smaller percentage are in white-collar jobs.

III.2. Empirical Results

As Table 1 shows, among permanently displaced workers, workers displaced through plant closings have average initial unemployment spells similar to those of workers displaced through layoffs. Table 2 shows the analysis of the duration of initial spells of joblessness for the same sample by using semiparametric proportional hazard-model techniques. It controls for the

following observable characteristics: log (previous earnings deflated by GDP deflator); one “previous years in tenure” variable; four dummies for education (one for “12 years completed”; one for “some college but less than four years of college completed”; one for “college degree but no graduate degree”; and one for “more than four years of college”); nine “year-of-displacement” dummies; one “advance notification” dummy; five “previous-industry” dummies; four “previous-occupation” dummies; one “experience at survey date” variable and its square; one “predisplacement marital status” dummy; one “nonwhite” dummy; one “age” variable; and using the Cox proportional hazards model for estimation, the hazard is assumed to be

$$h(t) = h_0(t) e^{b_1 x_1 + \dots + b_k x_k}$$

The Cox model provides estimates of b_1, \dots, b_k , but provides no direct estimate of the baseline function, $h_0(t)$. Table 2 displays coefficients rather than hazard ratios.

Workers permanently displaced by layoffs have 11 percent significantly longer initial unemployment spells than those displaced by plant closings. Thus, the evidence indicates that recall expectations depress the new-job search behavior of displaced workers.

Workers displaced from unionized or blue-collar jobs are more likely to be covered by collective-bargaining agreements than workers displaced from nonunionized or white-collar jobs. Thus, workers displaced from unionized or blue-collar jobs are more likely to have more accurate recall expectations than workers displaced from nonunionized or white-collar jobs. Since the depressing effect of recall expectations on new-job search behavior should be directly related to the inaccuracy of the recall expectations, it is reasonable to expect a larger depressing effect of the recall expectations on new-job hazard rate for workers displaced from nonunionized or white-collar jobs than for those displaced from unionized or blue-collar jobs. The empirical evidence presented in this paper also supports this hypothesis.

Rows 2 and 3 in Table 2 show the estimation of the effect of being laid-off on the duration of the unemployment spell for the white- and blue-collar samples. Workers laid off from white-collar jobs have 17 percent longer unemployment spells than observationally equivalent workers displaced through plant closings. The effect found among workers displaced from blue-collar jobs is smaller (5 percent) and *not* statistically significant.

Since the DWS does not provide information as to whether a worker's predisplacement job was unionized, the research classifies workers by whether they were displaced from industries with high or low rates of unionization.⁷ Rows 4 and 5 in Table 2 display the effects of a layoff on the duration of unemployment in samples of workers displaced from low- and high-unionized jobs. Laid-off workers displaced from low-unionized industries have 15 percent longer unemployment spells than similar workers displaced through plant closings. However, the effect found among workers displaced from high-unionized jobs is smaller (9 percent) and statistically significant at only the 10 percent level.

Some employers use layoffs to adjust to demand fluctuations (Feldstein, 1975; Medoff, 1979; Lilien, 1982). Thus, it is reasonable to expect that those workers who lost their jobs because of slack work are more likely to be recalled (and thus have a greater depression effect of recall expectations on their job search) than those whose positions were eliminated. Rows 6 and 7 separate the estimates of the layoff dummy in the duration equation by whether workers were laid off because of slack work or elimination of a position or shift. As expected, relative to workers displaced through plant closings, workers laid off because of slack work have longer unemployment than similar workers laid off because of elimination of a position or shift.

⁷ For a given year of displacement, industries with high unionization rates are defined as those having a unionization rate above the sample mean rate for that year. In 1983, the sample mean rate was 20.1 percent, and in 1992, the sample mean was 15.7 percent (Current Population Survey, annual averages 1983–1992).

Much evidence suggests that advance notice yields a productive predisplacement search (Addison and Blackburn, 1995; Swaim and Podgursky, 1990). Moreover, notified workers may differ from their nonnotified counterparts in some unmeasured way (Addison and Portugal, 1992a; Ruhm, 1992; Fallick, 1994). In such a case, one would want to distinguish between those workers who were notified in advance and those who were not. Laid-off workers who did not receive advance notice have 13 percent longer unemployment spells than observationally equivalent workers displaced by plant closings, although there is no statistically significant differential effect between being laid off and being displaced by a plant closing when workers received advance notice. The lack of result in the sample of notified workers may be related to a productive pre-displacement search and the inability to measure total search time accurately. Alternatively, if receipt of advance notice is directly related to the likelihood of *not* being recalled, most laid-off workers who received advance notice would not expect to be recalled, which would explain the lack of depressing effect on recall expectations.

Finally, because the search behavior of UI recipients may differ from that of nonrecipients or because UI recipients may differ from their nonrecipient counterparts in some unmeasured way, the study distinguishes between those workers who received UI benefits and those who did not. Laid-off workers who did not receive UI have 14 percent longer unemployment spells than observationally equivalent workers displaced by plant closings. For UI recipients, laid-off workers have 9 percent longer unemployment spells than workers displaced through plant closings (the coefficient, however, is significant only at the 10 percent level). The estimate of the layoff dummy obtained from the sample of workers who received unemployment insurance may be inaccurate because the effects of unemployment insurance

benefits on workers' search behavior are likely to vary across time.⁸

The above results were robust to changes in the covariates, the functional form, and the subsamples.

IV. Policy Implications for Worker Profiling

Targeting reemployment services to laid-off workers most likely to exhaust UI benefits may not be optimal, especially if such workers have valuable job matches with their former employers. The evidence shows that most laid-off workers who expected to be recalled but end up taking new jobs tend to have much longer unemployment spells than observationally equivalent workers who did not expect to be recalled at the time of layoff. Thus, those laid-off workers most likely to exhaust UI may be neither searching for a new job nor responding to reemployment services during the qualification period but rather awaiting a recall.

For instance, Anderson finds that only workers *not* expecting a recall respond to a reemployment bonus. She uses data from the New Jersey Unemployment Insurance Demonstration Project, which offered job counseling in the form of a job-search assistance (JSA) workshop on top of a reemployment bonus for some workers. Anderson's analysis focuses on three groups of laid-off workers: (1) those who received JSA only; (2) those who received JSA and a reemployment bonus; and (3) those who received nothing, that is, the control group. To investigate the effect of the reemployment bonus alone, Anderson (1990) calculated a score statistic to test whether the group that received a bonus plus the JSA workshop had a proportionately higher hazard than the JSA-only group. Table 3 shows her results for the new-

⁸ Fallick (1990) finds that empirical specifications that do not allow for variation in the effects of unemployment insurance over time may be inadequate to measure hazard rates of displaced workers who receive unemployment insurance benefits.

job hazard during the qualification period calculated separately for those workers expecting recall and those not expecting recall. The null hypothesis of no bonus effect can be rejected only for those workers *not* expecting recall. Therefore, Anderson finds that the bonus program has little obvious effect among those expecting a recall.

If workers expecting a recall—typically those with longer unemployment spells than similar workers not expecting a recall--do not respond to reemployment policies, then targeting reemployment services to workers most likely to exhaust UI may not be optimal. In fact, O’Leary, Decker and Wandner (1997) find that using a higher- probability threshold for targeting the reemployment bonus to workers with a high probability of unemployment exhaustion does not necessarily translate into larger UI reduction. For example, using data from the Washington and Pennsylvania reemployment bonus experiments, the authors find that targeting a reemployment bonus to claimants with high-exhaustion probabilities can yield a larger reduction in UI receipts than a nontargeted bonus. However, they find that the use of a higher-probability threshold for targeting does not necessarily translate into a larger UI reduction. For example, they find that if bonus offers were made to the 50 percent of UI recipients most likely to exhaust their benefits, the reduction in both UI and the program’s cost-effectiveness would be larger than if offers were made to only the top 25 percent of the distribution (Tables 7 and 8 in O’Leary, Decker, and Wandner, 1997). A possible explanation is that many workers with a high probability of UI exhaustion are not necessarily searching for a job but instead are awaiting recall while unemployed. If so, a reemployment bonus may not affect their new-job hazard rates (as shown by Anderson’s results on hazard rates of workers expecting to be recalled); therefore, targeting workers with a high probability of UI exhaustion may not be optimal.

Thus, improvements in the reduction of UI receipt may well occur if reemployment services are targeted to those laid-off workers less likely to expect a recall in addition to those

most likely to exhaust UI.⁹ The following section outlines a three-step profiling model that would target workers with both high UI exhaustion and a low probability of expecting a recall.

V. The Three-Step Profiling Model

The evidence presented above indicates that displaced workers' search behavior is strongly tied to their recall expectations, suggesting that targeting reemployment services to workers most likely to exhaust UI may not be an optimal policy. A new profiling model would acknowledge the differences between claimants and target them differently according to both their recall expectations and their probability of UI exhaustion. The three-step profiling model would identify four types of claimants as follows:

- Type I. Claimants who are likely to expect a recall at displacement and are likely to be recalled ex-post
- Type II. Claimants who are likely to expect a recall at displacement but are *not* likely to be recalled ex-post
- Type III. Claimants who are *not* likely to expect a recall at displacement but are likely to exhaust their unemployment insurance (UI) benefits
- Type IV. Claimants who are *not* likely to expect a recall at displacement and *not* likely to exhaust their UI benefits

To preserve permanent job matches, the three-step selection model would screen out Type I claimants. Since these claimants end up returning to their former jobs, they are

⁹ In a permanent setting, the profiling should be carried out not by asking workers about their expected probability of recall but rather —by assigning them a predicted, expected probability of recall. This would prevent workers from reporting false recall expectations as a means of establishing eligibility for the bonus.

usually less responsive to reemployment services. In addition, the selection process would identify Type II claimants, that is, claimants whose recall expectations are likely to be unrealized. These claimants are not likely to search for a new job immediately after displacement and will most likely have long unemployment spells. The reemployment services targeted to these claimants should be tailored to their needs and would most likely differ from those targeted to Type III claimants.¹⁰ As in the two-step process, the three-step selection model would target Type III claimants and exclude Type IV claimants.

VI. Conclusion

Temporary layoffs are an important feature of the U.S. labor market. The importance of recalls highlights the relevance of employer-employee relationships. To avoid breaking valuable job matches, the profiling model for targeting claimants for services in the new Worker Profiling and Re-employment Services (WPRS) systems excludes claimants who have a specific date of recall or are members of unions using hiring halls. However, many laid-off workers who do not have a definite recall date expect to be rehired by their former employers. This paper reviews the empirical facts on laid-off workers and, using the Displaced Workers Supplement to the Current Population Survey, presents new evidence that recall expectations depress new-job search behavior. In this case, targeting claimants who expect to be recall may not be an optimal policy. The paper offers an alternative to the two-step profiling model currently used for targeting claimants for services in the WPRS. The alternative model targets both claimants with a high probability of exhausting UI and claimants with a low probability of expecting a recall.

¹⁰ These reemployment services should aim at revising workers' subjective recall expectations.

**Table 1. DESCRIPTIVE STATISTICS FOR DISPLACED WORKERS USING THE DWS
(1988–1990–1992), MALES REEMPLOYED AT SURVEY DATE**

Variable	Means		
	Reason for Displacement		
	Entire Sample	Plant Closing	Layoff
Layoff = 1 (percent)	47.77	0	100
Previous tenure (years)	5.24 (6.44)	6.08 (6.99)	4.33 (5.65)
Log of previous weekly earnings	6.16 (0.56)	6.15 (0.55)	6.17 (.56)
Length of unemployment (weeks)	13.86 (18.65)	13.37 (19.06)	14.39 (18.18)
No unemployment after displacement = 1 (percent)	13.46	17.06	9.52
Advance notice = 1 (percent)	51.53	59.25	43.10
Current education (years)	12.94 (2.42)	12.71 (2.43)	13.20 (2.37)
Current (age-education-6) (years)	17.84 (10.30)	18.61 (10.40)	16.60 (10.02)
White collar in previous job = 1 (percent)	42.15	39.66	44.87
Previous job in manufacturing = 1 (percent)	41.59	42.30	42.90
Current age (years)	36.39 (10.08)	36.92 (10.03)	35.81 (10.10)
Currently married = 1 (percent)	68.58	69.89	67.14
Non white = 1 (percent)	10.35	11.23	9.39
N	3,186	1,664	1,522

Note.- The numbers in parenthesis are standard deviations. All weekly wages are deflated by the gross domestic product (GDP) deflator (base year = 1992). The white-collar sample consists of workers whose predisplacement occupations were in the managerial and professional specialties or in technical, sales, and administrative support specialties.

Table 2. SEMIPARAMETRIC HAZARD MODEL ESTIMATES USING THE DWS (1988–1990–1992), MALES

Dependent variable = Log (month of joblessness)

Cox proportional hazard model specification

	Layoff Dummy	Log Likelihood
1. Whole sample N=3,186	-.108 (.038)	-22,252.61
2. White-collar workers N=1,343	-.165 (.060)	-8,240.07
3. Blue-collar workers N=1,843	-.050 (.050)	-11,850.05
4. Nonunionized workers N=1,384	-.154 (.057)	-8,548.85
5. Unionized workers N = 1,802	-.087 (.050)	-11,546.20
6. Slack work N = 2,166	-.135 (.053)	-14,291.25
7. Shift abolished N = 2,684	-.084 (.042)	-18,285.03
8. No advance notice N = 1,544	-.134 (.055)	-9,673.12
9. Advance notice N = 1,642	-.084 (.052)	-10,383.21
10. No UI benefits N = 1,446	-.139 (.049)	-9,183.49
11. UI benefits N = 1,740	.087 (.0489)	-11,202.23

Note.- Earnings are deflated by GDP deflator. The numbers in parentheses are standard errors.

The covariates are log (previous earnings deflated by GDP deflator); one “previous years in tenure” variable; four dummies for education (one for “12 years completed”; one for “some college but less than four years of college completed”; one for “college one for “more than four years of college”); nine “year-of-displacement” dummies; one “advance notification” dummy; five “previous-industry” dummies; four “previous-occupation” dummies; one “experience at survey date” variable and its square; one “pre-displacement marital status” dummy; one “nonwhite” dummy; one “age” variable; and three

TABLE 3. SCORE TEST STATISTIC FOR THE NULL HYPOTHESIS : EQUAL NEW-JOB HAZARDS^S

JSA –Bonus versus JSA Only		
	Expecting Recall	Not Expecting Recall
Weeks 7–18	1.594	3.034

* Source: Table 3 in Anderson (1990).

The test statistic is distributed chi-square with 1 degree of freedom.

Critical values are: 2.71 for .10 level

3.84 for .05 level

5.02 for .025 level

6.63 for .01 level

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