Journal of Organizational Behavior
J. Organiz. Behav. **30**, 561–580 (2009)
Published online 3 November 2008 in Wiley InterScience
(www.interscience.wiley.com) **DOI**: 10.1002/job.566

Life after the layoff: getting a job worth keeping†

FRANCES M. MCKEE-RYAN[1]*, MEGHNA VIRICK[2], GREGORY E. PRUSSIA[3], JARON HARVEY[4] AND JULIANA D. LILLY[5]

[1]*Department of Managerial Sciences, University of Nevada, Reno, NV, U.S.A.*
[2]*Department of Management, San Jose State University, San Jose, CA, U.S.A.*
[3]*Department of Management, Seattle University, Seattle, WA, U.S.A.*
[4]*Division of Management, University of Oklahoma, Norman, OK, U.S.A.*
[5]*Department of Management and Marketing, Sam Houston State University, Huntsville, TX, U.S.A.*

Summary The competitive environment of business today makes corporate layoffs an organizational reality, and losing one's job can be a highly stressful experience. We propose and test a model that places objective underemployment and subjective underemployment in a causal sequence between organizational actions and employees' restoration of equilibrium by obtaining jobs worth keeping. We longitudinally examine relationships between layoff fairness, workers' stress symptoms and appraisal, and subsequent employment outcomes among 149 laid-off technical employees over the course of one year. Structural equation model results support seven of nine hypothesized paths, and demonstrate discriminant validity between and mediational properties of objective and subjective underemployment. Findings also reveal the important role that employees' perceptions and subjective assessments play in successfully returning to pre-job loss equilibrium following displacement. Copyright © 2008 John Wiley & Sons, Ltd.

Introduction

''We're going to have to let you go. . .'' These startling words wreak havoc in the lives of hundreds of thousands of workers every year in the United States and around the globe. Jobs hold special significance for workers, and losing one's job introduces a great deal of uncertainty for the displaced worker. Myriad questions arise: *Can I pay the bills? Will I find a new job? Will I have to take a pay cut or a demotion?* Although the harmful psychological effects of job loss are well documented (see McKee-Ryan, Song, Wanberg, & Kinicki, 2005, for a comprehensive meta-analytic review), this paper looks beyond unemployment to examine what happens to individuals when they obtain reemployment. Research indicates that the jobs laid-off workers obtain may be at lower wages (e.g., Seninger, 1997), not live up to worker expectations (e.g., Leana & Feldman, 1995), result in negative physical or

* Correspondence to: Frances M. McKee-Ryan, Ansari Business Building, m/s 0028, Reno, NV 89557, U.S.A.
E-mail: fmryan@unr.edu
† An earlier version of this manuscript was presented at the Academy of Management annual meeting, August 2007, Philadelphia, PA.

Received 16 June 2007
Revised 5 September 2008
Accepted 8 September 2008

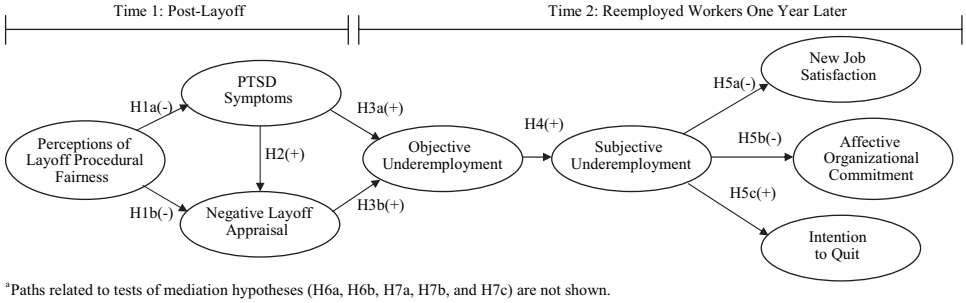
psychological well-being (Broom, D'Souza, Strazdins, Butterworth, Parslow, & Rodgers, 2006), and lead to a situation often described as underemployment (Feldman, 1996).

Underemployment occurs when a worker is employed in a job that is below his or her full working capacity (e.g., Feldman, 1996). While all laid-off workers face negative effects of job loss, prior studies show that these negative effects persist for underemployed workers. For example, people with unsatisfactory re-employment were more depressed and less satisfied with life (Leana & Feldman, 1995) and continued to cope with the effects of job loss at similar levels to workers who remained unemployed (Kinicki, Prussia, & McKee-Ryan, 2000). Thus the process of coping with a layoff does not end until the employee finds a suitable job, leading researchers to focus on characteristics of the job obtained.

The purpose of this study is to explore a constellation of relationships centered on underemployment, as characterized by objective characteristics of the job obtained as well as the employee's subjective assessment of the new job. We propose and test a model that begins with employees' initial perceptions of the fairness of the layoff process, their experience of stress symptoms, and layoff appraisal. These initial reactions are then linked over time to objective and subjective underemployment, which are in turn related to the reemployment outcomes of new job satisfaction, organizational commitment, and intention to quit. We thus are interested in a return to equilibrium following involuntary job loss—hallmarked by finding a job worth keeping and no longer looking for a new position—based on Latack, Kinicki, and Prussia's (1995) theory of coping with job loss. The chain of predicted relationships is depicted in Figure 1. Each linkage in the model represents a separate hypothesis, as substantiated in the following sections. In addition, we examine alternative conceptualizations by testing the mediating effects of objective and subjective underemployment as central constructs in our model in order to establish these constructs as separate, but related concepts.

Initial Layoff Reaction: Fairness, Stress Symptoms, and Appraisal

Losing a job is universally seen as a stressful event, yet laid-off employees do not experience the event uniformly. Instead, the job loss experience is tempered and influenced by both companies and individuals. Actions taken by the company conducting the layoff influence the laid-off employee's reaction to job loss, and the processes used in a layoff can vary dramatically across companies. For example, some employers provide extensive notice, while others make abrupt announcements; companies may use impersonal media to convey the message to employees, or may hold meetings



[a]Paths related to tests of mediation hypotheses (H6a, H6b, H7a, H7b, and H7c) are not shown.

Figure 1. Hypothesized structural equation model

DOI: 10.1002/job

providing workers an opportunity to ask questions or voice concerns. In a layoff situation, perceptions of fairness and justice are particularly important since the layoff event generates tremendous stress for victims, survivors, and the managers responsible for its implementation. Though the bulk of fairness perceptions studies focus on survivors, some research examines the impact of organizational practices intended to enhance fairness perceptions among victims (Hemingway & Conte, 2003; Wanberg, Bunce, & Gavin, 1999). However, individual interpretations of process fairness may perhaps be more important than objective characteristics associated with a layoff (e.g., Brockner, Wiesenfeld, & Martin, 1995; Wanberg et al., 1999). Perceptions of layoff procedural fairness can influence the employee's adaptation to job loss by making the event less traumatic to the laid-off worker (H1a) and diminishing the employee's cognitive appraisal of the event as threatening or harmful (H1b).

Job loss, being a major life event, also brings forth a cascade of additional stressors related to the emotional/psychological (post-traumatic stress disorder (PTSD) symptoms) and cognitive response (negative layoff appraisal) of the displaced worker to the layoff event. Though war or natural disasters that affect communities most often come to mind for PTSD, research shows smaller scale, individual life events such as job loss (Mol, Arntz, Metsemakers, Dinant, Vilters-Van Montfort, & Knottnerus, 2005) or marital separation may also give rise to PTSD (Davidson & Foa, 1991). PTSD encompasses psychological and psychosomatic symptoms triggered by a traumatic response tied to a particular life experience. In our study, these psychological and behavioral disturbances are anchored to the specific stressful event of job loss. Symptoms of PTSD can include depression, re-experience of or fixation on the job loss event, and conscious avoidance of thinking about the job loss (Tehrani, Cox, & Cox, 2002). Based on recent research that found direct relationships between perceptions of organizational justice and employee mental health outcomes such as depression and anxiety (e.g., Spell & Arnold, 2007), we predict that workers who view the layoff process as fair will experience fewer of these PTSD symptoms. That is, they are less likely to ruminate on the events surrounding the layoff, to become depressed and withdrawn, or experience lack of sleep because they are re-living the experience of being laid-off.

H1a: Perceptions of layoff procedural fairness are negatively related to the experience of post-traumatic stress disorder symptoms.

When confronted with a stressful situation, a person subjectively determines the personal meaning or impact of the situation and assesses or appraises potential for future harm. This assessment plays a key role in one's adaptation to the stressor (e.g., Latack et al., 1995). After being laid-off, individuals determine the degree of personal harm that has occurred or the threat of future harm and this comprises their negative layoff appraisal: The perception of the negative life-impact of job loss. Mishra and Spreitzer (1998) note that perceived fairness of the way in which downsizing is implemented is critical because it affects the way layoff survivors appraise downsizing. This argument holds true for victims of layoffs as well. Perceptions of procedural injustice and a lack of fairness can create anger among layoff victims (Bies, Martin, & Brockner, 1993), thus affecting their coping strategies (Bennett, Martin, Bies, & Brockner, 1995). Indeed, events perceived as unfair elicited negative emotions and negative appraisals of the event, obstructing plans and negatively affecting personal relationships (Mikul, Scherer, & Athenstaedt, 1998). Gowan and Gatewood (1997) also note that resources, such as fairness perceptions, that are available to the individual are important in the formulation of appraisal. Thus we argue that when an employee views the layoff processes as fair, negative appraisal should be diminished.

H1b: Perceptions of layoff procedural fairness are linked to lower negative layoff appraisals.

DOI: 10.1002/job

PTSD symptoms are closely related to the meanings one attributes to and cognitive interpretations of the precipitating event, and symptoms can occur immediately after the event or manifest over time. Those who suffer persistent PTSD symptoms continue to appraise the traumatic event as a threat (Ehlers & Clark, 2000). The onset and persistence of PTSD symptoms are therefore associated with a more intense cognitive appraisal of the layoff. This occurs because the worker now not only faces the reality of being out of work, but also the psychological and psychosomatic symptoms experienced since the layoff. We thus propose:

H2: PTSD symptoms are positively related to negative layoff appraisal.

Objective and Subjective Underemployment

Although there is widespread agreement that underemployment refers to jobs that are substandard in some way, underemployment is a complex and multidimensional construct (*cf.* Feldman, 1996, Khan & Morrow, 1991; Maynard, Joseph, & Maynard, 2006). Feldman, Leana, and Bolino (2002) highlighted three dimensions of underemployment among laid-off workers: Being employed at a lower hierarchical level in the organization, earning significantly lower pay, and holding a job in which one's skills are not fully utilized. These dimensions come together to encompass the objective experience of underemployment—including tangible or observable evidence of a job that is deficient to the worker.

Objective job characteristics, however, may not fully explain differential outcomes for workers following reemployment. Workers may also experience subjective underemployment when they evaluate their new jobs relative to their own internal standards and expectations. For example, Feldman et al. (2002) considered workers' interpretation of employment status in terms of relative deprivation theory, which encompasses a discrepancy between actual and desired work situations. Thus, displaced workers can be subjectively underemployed and experience relative deprivation when they have unmet expectations about their jobs, including a belief that they want or ought to have a better job (Feldman et al., 2002). This assessment is determined by comparing the current job situation to former job circumstances. Subjective underemployment also includes the extent to which the employee feels he or she is overqualified for the job (Khan & Morrow, 1991). As such, subjective underemployment is a relatively broad construct capturing multiple aspects of workers' reemployment assessments.

PTSD symptoms, appraisal, and subsequent underemployment

The limited prior research on underemployment and PTSD found reduced wages and an increased prevalence of involuntary part-time work among war veterans experiencing PTSD (e.g., Smith, Schnurr, & Rosenheck, 2005). In a related vein, depression, a component of PTSD, was significantly linked to underemployment among youths (Dooley, Prause, & Ham-Rowbottom, 2000), while Gowan, Riordan, and Gatewood (1999) suggest that post-job loss distress negatively affects re-employment outcomes via the choice of coping strategies employed. We draw from this research to predict that laid-off workers experiencing PTSD symptoms such as ruminating on the layoff event and experiencing depression are likely to have poor quality employment outcomes over time:

H3a: PTSD symptoms are positively related to objective underemployment.

DOI: 10.1002/job

We further predict that an individual's situational appraisal has clear effects on subsequent employment outcomes. For example, McKee-Ryan et al.'s (2005) meta-analysis found a significant, negative relationship between appraisal and psychological well-being (corrected correlation of −.38). Within a job loss context, how the individual appraises the layoff influences subsequent reemployment characteristics (Latack et al., 1995; Leana & Feldman, 1995). For example, individuals with extremely negative cognitive appraisals may not be able to garner the energy to look for a suitable job (e.g., Latack et al., 1995) or may take the first job that comes along rather than waiting for a better alternative (e.g., Kinicki et al., 2000). Thus, a more negative appraisal of the job loss event is associated with greater negative outcomes for the displaced worker (Gowan et al., 1999), leading us to hypothesize a direct effect of negative layoff appraisal on objective underemployment:

H3b: Negative layoff appraisal is positively related to objective underemployment.

Objective and subjective underemployment

Considered together, objective and subjective underemployment are related but separate constructs. While relatively observable characteristics of a job comprise objective underemployment, subjective underemployment assessments require that an employee interpret these characteristics relative to some internal standard (Feldman et al., 2002). Because the subjective evaluation comprises a cognitive assessment based on observable job characteristics, we expect a positive—but not unitary—link from objective to subjective underemployment. That is, a job that is objectively deficient in pay and hierarchical level should translate into subjective assessments of deserving a better job or feeling overqualified.

H4: Objective and subjective underemployment are empirically distinct and are positively related to each other.

Reemployment Outcomes—A Return to Equilibrium

The focus of job loss research has subtly shifted over time from reemployment to the *quality* of reemployment (e.g., Kinicki et al., 2000; Leana & Feldman, 1995; Wanberg, 1995). This change reflects the reality that obtaining a job may not bring the displaced worker back into equilibrium. For example, Kinicki et al., (2000) found that workers with low-quality re-employment continued to cope with the effects of job loss at a similar level as workers who remained unemployed. The life-disruption brought about by a layoff creates a discrepancy between an individual's current and desired states, resulting in a feeling of disequilibrium and a desire to change the situation. Subjective underemployment reflects such a discrepancy: Workers who are subjectively underemployed want a better job, feel that they deserve a better job, and perceive themselves to be overqualified (Feldman et al., 2002).

Previous underemployment research linked these dimensions of subjective underemployment with negative outcomes (Feldman et al., 2002; Maynard et al., 2006). Following a layoff, discrepancy resolution, or equilibrium, occurs when the worker obtains a ''good job,'' that is a high quality, satisfactory new job to which he or she can become committed and no longer look for a better job. We

DOI: 10.1002/job

thus examine the outcomes of new job satisfaction, organizational commitment, and intention to quit among re-employed workers over 1-year.

Job satisfaction is an important job attitude which reflects the attainment of equilibrium. Employees' job satisfaction encompasses cognitive, affective, and evaluative response to their jobs (Kinicki et al., 2000; Leana & Feldman, 1995). Subjective perceptions of discrepancies between qualifications and being employed in a job that does not meet one's expectations are likely to be linked to a diminished sense of job satisfaction. The ideal job situation is one in which individuals are highly satisfied with their jobs. As such, we propose:

H5a: Subjective underemployment is negatively related to new job satisfaction.

During unemployment, displaced workers may be under financial or social pressure to replace their income and get a new job quickly. These strains of job loss could lead to workers accepting low-quality, stop-gap jobs that they view as temporary, and to which they are not committed. Recently reemployed individuals may discover that their new organizations are not what they perceived or expected and thus find themselves unsettled. A discrepancy in expectations (e.g., pay, job responsibility, and challenge) may preclude reemployed individuals from becoming attached and committed to their organizations, thereby diminishing their level of affective commitment (Feldman et al., 2002; Maynard et al., 2006). Individuals who achieve re-employment which meets their expectations and reduces the number of discrepancies they are experiencing are more likely to identify with and feel emotionally attached to their employer. Thus, we posit that high levels of affective organizational commitment are indicative of an individual reaching equilibrium. This leads to the following hypothesis:

H5b: Subjective underemployment is negatively related to affective organizational commitment to the new job.

Following this same logic, workers who are subjectively underemployed are more likely to think about quitting their jobs. The primary method employees have for reducing their employment discrepancies is to change jobs (Maynard et al., 2006; Tett & Meyer, 1993), which is most often preceded by withdrawal cognitions. As long as a displaced worker feels ''unsettled'' in his or her new job, the process of coping with job loss continues (Latack et al., 1995). On the contrary, workers who have found a good job should not be thinking about quitting or finding a new job (Griffeth, Hom, & Gaertner, 2000; Maynard et al., 2006; Tett & Meyer, 1993). Thus we propose:

H5c: Subjective underemployment is positively related to intention to quit.

Alternative Model Tests: Mediated Effects of Objective and Subjective Underemployment

The related constructs of objective and subjective underemployment and their respective relationships comprise the central focus of our study. Our aim is to demonstrate both the conceptual and empirical distinctiveness of these related constructs. As shown in Figure 1, the underemployment constructs are expected to act as intervening variables between initial job loss reactions and re-employment outcomes. We expect the underemployment constructs to fully mediate antecedent/outcome construct relationships and predict that the two underemployment constructs relate differentially to the remaining constructs in our model. Specifically, we predict that our time

DOI: 10.1002/job

one antecedents of PTSD symptoms and negative job loss appraisal will have direct links to objective underemployment, and that their influence on subjective underemployment will be indirect through the objective characteristics of the job obtained. At the back end of our model, we predict that the relationships between objective underemployment and the outcomes of new job satisfaction, affective organizational commitment, and intention to quit will be fully mediated by subjective underemployment assessments.

For our first mediation test, we propose that the relationships between the PTSD symptoms and negative layoff appraisal and subsequent subjective underemployment assessments are filtered through—or mediated by—objective underemployment. This prediction is based on research examining how an individual's stress response affects coping outcomes (*cf*. Gowan et al., 1999). A direct effect of PTSD symptoms and negative layoff appraisal on subsequent subjective underemployment irrespective of objective job characteristics is unexpected because such a relationship would reflect an atypical stress process or response. That is to say, a laid-off worker who experiences high levels of PTSD symptoms and an extremely negative layoff appraisal is likely to assess his or her re-employment situation negatively only if the objective job characteristics are also poor, such as a low-paying job at a lower hierarchical level where he or she does not have the opportunity to use relevant skills. A direct relationship between PTSD symptoms and negative layoff appraisal and subjective underemployment that exists regardless of objective job characteristics would likely reflect a separate underlying causal explanation, such as the individual being high in negative affectivity, or being deeply scarred by the unemployment event. Thus we expect that objective indicators of re-employment play an important role in affecting subjective perceptions of one's re-employment and we propose:

H6a–6b: Objective underemployment fully mediates the relationship between PTSD symptoms (6a) and negative layoff appraisal (6b) and subjective underemployment.

Our second mediation test predicts that our ultimate reemployment outcomes are immediately preceded by subjective underemployment assessments. Several researchers have proposed that despite greater difficulty in obtaining subjective measures of underemployment, subjective perceptions are more useful in predicting employee attitudes (Johnson, Morrow, & Jones-Johnson, 2002; Khan & Morrow, 1991; Maynard et al., 2006). In applying a stressor–strain framework objective job characteristics such as reduced pay and lack of skill use comprise the stressor, while subjective measures of underemployment reflect the individual's reaction to the stressor, which directly influence the results of this process (*cf*., Cooper, Dewe, & O'Driscoll, 2001). We therefore propose that subjective underemployment assessments are immediate and proximal antecedents, while objective underemployment characteristics are more distal predictors of employee attitudinal outcomes:

H7a–7c: Subjective underemployment fully mediates the relationships between objective underemployment and new job satisfaction (7a), affective organizational commitment (7b), and intention to quit (7c).

The model in Figure 1 portrays the process chain linking individuals' response to being laid-off to critical employment outcomes, through the central underemployment constructs. To our knowledge, this is the first study to combine these various perspectives and to explore the set of relationships within one model. Given the criterion of interest in our study, we limited our sample to individuals who were initially unemployed but who subsequently obtained re-employment. This sample restriction was essential in order to enable our examination of this constellation of model linkages.

DOI: 10.1002/job

Organizational Context

Longitudinal data were obtained from laid-off workers in the south-central U.S. Access to this group was obtained through e-mail lists maintained by a regional technology council and networking groups. Individuals were first contacted in 2003 via e-mail and were provided with a survey link, posted on the technology council's website. This Time 1 survey was sent to 3200 individuals, and 1256 surveys were completed online (39.2 per cent response rate). Eight hundred of these respondents agreed to participate in the Time 2 follow-up survey which was solicited 1 year later in 2004. A 1-year time lag was chosen in an effort to allow individuals enough time to find new jobs. Of these 800 people, 298 respondents completed the second survey. Among those, 64 people had jobs at Time 1 and therefore were excluded from further analysis. Of the 234 remaining respondents included in the sample, 85 people were unemployed at both Times 1 and 2 and 149 were unemployed at Time 1 but reemployed at Time 2. We limited our analyses to the 149 re-employed individuals in order to focus on reemployment outcomes. Logistic regression results revealed no significant differences between respondents/non-respondents, nor between employed/unemployed workers on sample demographics (gender, age, level of education, and marital status), or on any of our substantive variables.

About one-third of respondents were from the telecommunications industry. Other industries included technology consulting, manufacturing, finance, professional, scientific/technical services, and ISP web search. Our sample was predominantly male (64.6 per cent), white (82 per cent), and well-educated (38 per cent with undergraduate degrees; almost 50 per cent with at least some graduate work) technical workers. Age was measured with 10 categories in 5-year increments; 46–50 year olds comprised the greatest concentration of respondents (26.8 per cent). The average length of layoff for the sample was 9.9 months.

Method

All latent constructs in the model were indicated using multiple observed variables following structural modeling protocol and recommendations (*cf.* James, Mulaik, & Brett, 1982). However, there are computational limitations for models involving too many indicators so we strove to limit the number of indicators for each construct. To utilize multiple indicators for each latent construct, we used three common approaches to create construct indicators (see Landis, Beal, & Tesluk, 2000): Items from established scales were averaged to form indicators, items comprising a unidimensional factor were divided to create separate composite indicators, and individual items were used as indicators when there were a limited number of relevant items.

The Time 1 survey included perceptions of layoff procedural fairness, PTSD symptoms, and negative layoff appraisal. Time 2 measures included objective underemployment, subjective underemployment, new job satisfaction, affective organizational commitment, and intention to quit. Unless otherwise stated, responses ranged from (1) strongly disagree to (5) strongly agree.

DOI: 10.1002/job

Perceptions of layoff procedural fairness

Two items developed for this study captured the perceived fairness of the layoff process, similar to Wanberg et al. (1999). Layoff victims indicated whether ''the procedures used to implement the layoff were fair'' and whether the ''layoffs were implemented in a fair and unbiased manner.'' Each item was used as a separate indicator of the latent construct, and the two-item coefficient alpha was .64.

Post-traumatic stress disorder symptoms

For this construct we used the extended impact of event scale (IES-E; Tehrani et al., 2002). Items forming the three subscales of the IES-E were adapted to a job loss context. Specifically, five items formed the arousal subscale ($\alpha = .88$), while four items made up the re-experience ($\alpha = .77$), and avoidance ($\alpha = .68$) subscales. Respondents indicated their layoff reactions to items such as, ''I felt down or depressed'' (arousal), ''I could not stop thinking about the layoff'' (re-experience), and ''I try not to think or talk about my layoff'' (avoidance). Items within subscales were averaged to create three construct indicators.

Negative layoff appraisal

We developed three items to capture negative layoff appraisal based on Latack et al. (1995). The items were, ''my job loss has negatively affected my future job prospects,'' ''my job loss severely affected my financial situation,'' and ''my job loss negatively affected my social life.'' These items measured respondents' sense of harm, loss, or threat commonly used to represent an individual's appraisal following a stressful event.

Objective underemployment

We used three different objective underemployment measures (e.g., Feldman et al., 2002): Pay difference, hierarchical level of the job, and skill underutilization. Pay difference was measured with the question, ''what is the pay difference between your current job and your previous job?'', with responses ranging from (1) current job pays 40 per cent or more than previous job to (9) current job entails a pay cut of more than 40 per cent. Difference in hierarchical level was measured by asking, ''how does the hierarchical level of your current job compare with that of the job from which you were laid-off?'' Responses ranged from (1) much higher to (5) much lower. The pay and hierarchical difference items comprised the first two indicators of objective underemployment. Skill underutilization comprised the final indicator of the construct and was measured by asking respondents to indicate the extent to which 11 specific skills (e.g., ''finance and budgeting skills,'' ''technical skills,'' and ''problem solving skills'') were being used on their new job ($\alpha = .93$). Responses ranged from (1) much less on their current job to (5) much more on their current job. Items were reversed such that higher scores reflected greater objective underemployment and were averaged to create the indicator.

Subjective underemployment

How respondents perceived their new employment relative to their previous job was assessed with three indicators. First, perceived overqualification was measured with four items from Khan and Morrow (1991), with responses ranging from (1) strongly disagree to (7) strongly agree ($\alpha = .85$). The second

DOI: 10.1002/job

and third indicators came from Feldman et al.'s (2002) relative deprivation scales. They suggested that relative deprivation following job loss is reflected in individuals' perceptions regarding what they want and what they feel entitled to have. We adapted their original items to use the terms *desire* and *deserve* based upon pilot study feedback. Specifically, we included five want/desire items ($\alpha = .92$; e.g., ''I desire better salary'' and ''I desire a better job situation'') and five entitled/deserve items ($\alpha = .94$; e.g., ''I deserve a better salary''). Responses ranged from (1) desire/deserve no more of to (5) desire/deserve significantly more of, respectively. Items within each scale were averaged to create indicators of the subjective underemployment construct.

New job satisfaction

Six items were used to assess this construct ($\alpha = .94$). Items included, ''I am satisfied with my present job,'' ''I am satisfied with my job responsibility,'' and ''I am satisfied with my overall job,'' and responses ranged from (1) strongly disagree to (7) strongly agree. We used Mathieu and Farr's (1991) procedure to create indicators. We first ran a principal components exploratory factor analysis on the six items which yielded a single factor. Next we paired the items with the highest and lowest standardized factor loadings to form two groupings of three items each. We then averaged the groups to form indicator scores.

Affective organizational commitment

We used a three-item measure of affective organizational commitment (Allen & Meyer, 1990; $\alpha = .76$). Responses ranged from (1) strongly disagree to (7) strongly agree and each item formed a separate indicator of the latent construct.

Intention to quit

Three items from Cammann, Fichman, Jenkins, and Klesh (1979) were used to measure intention to quit ($\alpha = .78$). Response options ranged from (1) strongly disagree to (7) strongly agree and each item comprised a separate indicator of the construct.

Analysis and Results

We used covariance structure analysis to examine proposed models using elliptical estimation in EQS. This method of analysis allows the specification of latent constructs and the use of multiple indicators to avoid bias associated with single-indicator models. Overall model fit was evaluated with two fit indices: The non-normed fit index (NNFI) and the comparative fit index (CFI). Both indices avoid underestimation of fit associated with small samples (Bentler, 1990). We also used the root mean square error of approximation (RMSEA) to assess model lack of fit. RMSEA values of .05 or less indicate close fit relative to model degrees of freedom, while values of .08 are considered reasonable (Browne & Cudeck, 1992).

Means, standard deviations, and scale correlations are provided in Table 1. Measurement and structural model results are presented in Table 2. The eight-factor latent variable measurement model was initially fitted to the data. Results demonstrated that the model fit the data well: $\chi^2(181) = 266.31$, $p < .05$; NNFI = .96; CFI = .97. Moreover, the low RMSEA (.06) suggested limited modeling error.

DOI: 10.1002/job

Table 1. Scale correlation matrix

Scale	Mean	SD	1	2a	2b	2c	3	4a	4b	5a	5b	5c	6	7	8
1. Perceptions of layoff procedural fairness	3.12	0.96	(.64)												
2a. PTSD symptoms—arousal	3.60	0.96	−0.30**	(.88)											
2b. PTSD symptoms—re-experience	3.30	0.92	−0.31**	0.71**	(.77)										
2c. PTSD symptoms—avoidance	2.89	0.84	−0.10	0.54**	0.40**	(.68)									
3. Negative layoff appraisal	3.85	0.82	−0.15	0.52**	0.44**	0.31**	(.63)								
4a. Objective underemployment—difference in job: Pay and hierarchical level	5.35	1.61	0.02	0.14	0.08	0.09	0.16								
4b. Objective underemployment—skill underutilization	3.38	0.95	−0.02	0.26**	0.19*	0.05	0.29**	0.57**	(.93)						
5a. Subjective underemployment—perceived overqualification	4.57	1.70	−0.16	0.24**	0.06	0.11	0.30**	0.46**	0.62**	(.85)					
5b. Subjective underemployment—desire a better job	3.71	1.02	−0.17	0.14	0.06	0.06	0.23**	0.36**	0.40**	0.63**	(.92)				
5c. Subjective underemployment—deserve a better job	3.48	1.05	−0.19*	0.16	0.15	0.06	0.21*	0.21*	0.23**	0.48**	0.68**	(.94)			
6. New job satisfaction	3.32	1.68	0.05	−0.18*	−0.08	−0.07	−0.28**	−0.64**	−0.71**	−0.76**	−0.71**	−0.45**	(.94)		
7. Affective organizational commitment	3.70	1.60	0.06	−0.20*	−0.10	−0.15	−0.24**	−0.31**	−0.48**	−0.58**	−0.39**	−0.33**	0.58**	(.76)	
8. Intention to quit	3.94	1.76	−0.06	0.16	0.08	0.06	0.27**	0.53**	0.55**	0.66**	0.56**	0.41**	−0.76**	−0.61**	(.78)

Note: PTSD—Post-Traumatic Stress Disorder. Coefficient αs indicating scale reliabilities are in parentheses on the diagonal.
*$p < .05$, two-tailed.
**$p < .01$, two-tailed.

J. Organiz. Behav. **30**, 561–580 (2009)
DOI: 10.1002/job

Table 2. Measurement and structural models

MODELS							
Measurement Model	χ^2	*df*	NNFI	CFI	RMSEA	χ^2_{diff}	*df*
Eight-factor measurement model	266.31*	181	.96	.97	.06		
Model factors constrained to be equal	624.90*	209	.82	.84	.13		
						358.59*	28
Structural Model	χ^2	*df*	NNFI	CFI	RMSEA	χ^2_{diff}	*df*
Baseline model	298.99*	197	.95	.96	.06		
Saturated structural model	266.31*	181	.96	.97	.06		
Model with added path from negative job loss appraisal to subjective underemployment	298.93*	196	.95	.96	.06		
Difference from baseline						.06	1
Difference from saturated						32.62*	15
Model with added path from objective underemployment to new job satisfaction	287.51*	196	.96	.97	.06		
Difference from baseline						11.48*	1
Difference from saturated						21.20	15
Model with added path from objective underemployment to affective organizational commitment	298.57*	196	.95	.96	.06		
Difference from baseline						.42	1
Difference from saturated						32.26*	15
Model with added path from objective underemployment to intention to quit	295.97*	196	.95	.96	.06		
Difference from baseline						3.02	1
Difference from saturated						29.66*	15

*$p < .05$

Finally, confirmatory factor analysis results support the convergent validity of construct indicators: All factor loadings were significant and the average loading was .73. These results provide preliminary support for the psychometric quality of our measures.

To investigate the overall discriminant validity of our measures, we compared the eight-factor model to a model that constrained all constructs to be equal. This model was nested in the original eight-factor model and exhibited a poor fit ($\chi^2(209) = 624.90$, $p < .05$, NNFI = .82, CFI = .84, RMSEA = .13). Moreover, the sequential χ^2 difference test (SCDT; James et al., 1982) suggested the constrained model was a significantly worse fit relative to the original model ($\Delta\chi^2(28) = 358.59$, $p < .05$). This test of overall discriminability provides initial evidence that construct relationships are not explained by common method variance (Harman, 1976). Next, we examined the discriminant validity of Time 2 model constructs given potential measurement overlap. Specifically, we compared the original measurement model with alternative models that constrained two Time 2 constructs to be perfectly correlated and equally correlated with other latent constructs (see Brooke, Russell, & Price, 1988). For example, the original model was first contrasted to a model that specified equality between subjective and objective underemployment. Results revealed reduced model fit statistics as well as a significant SCDT ($\Delta\chi^2(7) = 38.61$, $p < .05$). Subsequent examinations compared the original model with alternative models that constrained two other Time 2 constructs to be equivalent. Despite some high

DOI: 10.1002/job

scale intercorrelations (e.g., −.76 between perceived overqualification and new job satisfaction), all 10 alternative measurement models exhibited reduced model fit compared to the original model. Specifically, significant SCDT differences as well as material reductions in model CFI attested to reduced alternative model fit. These results provide evidence supporting the discriminant validity of our original measurement model.

Structural relationships were examined and tests for mediation were conducted following measurement model analyses. We began by specifying the model depicted in Figure 1. This *baseline structural model* (see Table 2) accurately fit the sample data: $\chi^2(197) = 298.99$, $p < .05$; NNFI = .95; CFI = .96; RMSEA = .06. Moreover, seven of the nine structural path estimates were significant and in the predicted direction, supporting all but Hypotheses 1b and 3a (see Figure 2). Next, to examine the extent to which dimensions of underemployment act as mediators, we followed Mathieu and Taylor's (2006) structural modeling approach to evaluate full and partial mediation hypotheses. Specifically, mediation is assessed by comparing nested models, evaluating path estimates, and calculating the significance of indirect effects. The baseline structural model as well as a *saturated structural model*—one that is equivalent to the original measurement model—provided bases for model comparisons. The Sobel test (Sobel, 1982) was used to evaluate indirect effects (see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002).

Our first set of mediation tests related to objective underemployment as a mediator: First, we examined the extent to which objective underemployment (m) fully mediates the effect of PTSD symptoms (x) on subjective underemployment (y). According to Mathieu and Taylor (2006), the first condition necessary to establish full mediation is a significant relationship between antecedent and outcome constructs (β_{yx}). Results show the latent construct correlation between PTSD symptoms and subjective underemployment was not significant (.19, *n.s.*). This indicates that the first condition for full mediation was not met and H6a was therefore not supported. Next we examined the extent to which objective underemployment mediates the relationship between negative layoff appraisal and subjective underemployment. The latent construct correlation between these two constructs was significant (.39, $p < .05$), satisfying the condition of the existence of a total effect. Starting with the baseline model, we then specified a revised model that included an additional path from appraisal to subjective underemployment and compared it to the baseline and saturated structural models. The revised model fit the data reasonably well ($\chi^2(196) = 298.93$, $p < .05$; NNFI = .95; CFI = .96; RMSEA = .06), but was not a significant improvement over the baseline model ($\Delta\chi^2(1) = .06$, *n.s.*) and differed significantly from the saturated model ($\Delta\chi^2(15) = 32.62$, $p < .05$). Moreover, the added direct path from negative layoff appraisal to subjective underemployment (β_{yxm}) was not significant (.01, *n.s.*) although the indirect effect was significant (Sobel = 2.03, $p < .05$). In sum, results failed to support H6a, but did support H6b in that objective underemployment fully mediates the relationship between negative layoff appraisal and subjective underemployment.

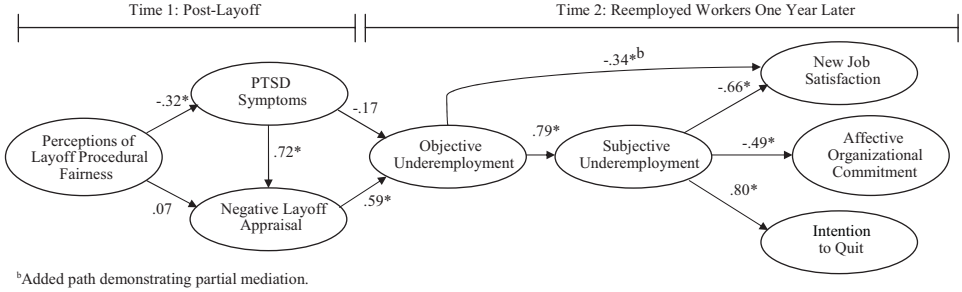


Figure 2. Structural equation model with path coefficients. Standardized structural parameters are reported

DOI: 10.1002/job

We next examined subjective underemployment (*m*) as a mediator between objective underemployment (*x*) and the re-employment outcomes (*y*) of new job satisfaction, affective organizational commitment, and intention to quit. Following the same procedure as above, results demonstrate that latent construct correlations between objective underemployment and all three reemployment outcomes were significant ($-.87$, $p < .05$; $-.36$, $p < .05$; .66, $p < .05$, respectively). Following these results, we specified three separate revised models, each with an additional path from objective underemployment to one of the re-employment outcomes and compared it to baseline and saturated models. The revised model that included a path to new job satisfaction, ($\chi^2(196) = 287.51$, $p < .05$; NNFI = .96; CFI = .97; RMSEA = .06) was a significant improvement over the baseline model ($\Delta\chi^2(1) = 11.48$, $p < .05$) and did not differ from the saturated model ($\Delta\chi^2(15) = 21.20$, *n.s.*). This implies that the added direct effect of objective underemployment on new job satisfaction is significant, and it was ($-.34$, $p < .05$), as was the indirect effect via subjective underemployment (Sobel = 4.00, $p < .05$). These findings contradict H7a and indicate that subjective underemployment partially mediates the influence of objective underemployment on new job satisfaction. Neither of the other two revised models that included direct paths from objective underemployment to affective organizational commitment and intention to quit constituted a significant improvement over the baseline model (see Table 2). Furthermore, they differed from the saturated model; both direct path coefficients were not significant, while each of the indirect effects were significant (Sobel = 2.25, $p < .05$; Sobel = 3.65, $p < .05$, respectively). These results provide support for H7b and H7c that subjective underemployment fully mediates the impact of objective underemployment on affective organizational commitment and intent to quit.

As shown in Figure 2, β coefficients in the final model indicate that perceptions of layoff procedural fairness had a significant and negative association with laid-off workers' PTSD symptoms ($-.32$, $p < .05$; H1a) but did not relate to negative layoff appraisal (.07, *n.s,* H1b.). PTSD symptoms was positively associated with negative layoff appraisal (.72, $p < .05$; H2) but did not relate to objective underemployment ($-.17$, *n.s*, H3a.). Moreover, negative layoff appraisal was related to objective underemployment (.59, $p < .05$, H3b) which was linked to subjective underemployment (.79, $p < .05$, H4). Results further indicated that subjective underemployment is associated with new job satisfaction ($-.66$, $p < .05$, H5a), affective organizational commitment ($-.49$, $p < .05$, H5b), and intention to quit (.80, $p < .05$, H5c). Finally, the added direct path from objective underemployment to new job satisfaction was significant ($-.34$, $p < .05$, H7a). Taken together these results provide strong support for the conceptual linkages within the proposed model (Figure 1) and attest to the mediating properties of the underemployment constructs.

Discussion

Our longitudinal analysis followed laid-off technical employees over the course of a year and focused on a subset of workers who had been laid-off and subsequently became re-employed. Our predictions were based on Latack et al.'s (1995) job loss theory that holds that coping with a layoff continues until the employee returns to a state of equilibrium by obtaining satisfactory re-employment and ceasing looking for a new job. We examined employees' perceptions of layoff fairness and their stress reaction to losing their jobs through the process of becoming re-employed in high quality jobs worth keeping. Structural equation model results supported seven of nine hypothesized linkages and four of five mediated relationships. Findings revealed the key role played by employees' perceptions and subjective assessments in returning to pre-job loss equilibrium following displacement. We now highlight key findings and offer future research directions, describe our limitations, and provide contributions and conclusions.

DOI: 10.1002/job

Key findings and directions for future research

Laid-off employees in our sample displayed PTSD symptoms following their layoffs. In particular, these workers experienced symptoms such as ruminating on or re-experiencing the layoff event, as well as anxiety or agitation that was triggered by job loss. This finding supports recent research which suggests that stressful individual life events can be linked to reactions that are similar to experiencing a traumatic event (Mol et al., 2005). Moreover these PTSD symptoms appear to have been influenced by employees' perceptions of the fairness of the actions taken by organizations when implementing a layoff. Future research needs to explore this preliminary evidence, identifying additional factors that affect these symptoms. For example, in addition to perceptions of layoff procedural fairness, advance notice and time to prepare for layoffs may mitigate PTSD symptoms (e.g., Wanberg et al., 1999). Other potentially fruitful research avenues include the effect of company policies regarding layoffs (e.g., Bennett et al., 1995), and the worker's level of employment commitment (e.g., Paul & Moser, 2006).

Contrary to expectations, there was no significant link between perceptions of layoff procedural fairness and negative layoff appraisals. Other concerns apparently overrode the effect of perceiving the layoff as fair in the formulation of the harm or threat appraisals employees had regarding their layoff. Thus while fairness perceptions affect other outcomes such as overall goodwill toward one's former employer, future research needs to identify organizational practices that more directly lessen the employee's negative appraisal of the event, such as providing outplacement services or generous severance packages.

Our study did find that experiencing PTSD stress symptoms was linked to stronger negative layoff appraisals. Those workers experiencing psychosomatic stress symptoms directly related to their layoff appraised the negative life impact of their unemployment more strongly than those with fewer symptoms, but these workers were not more likely to be objectively underemployed 1 year later. Interestingly, PTSD symptoms were related to the degree of the worker's perceived life impact of job loss, but not to his or her re-employment outcomes over time. Our data did not allow insight into the continuation or resolution of PTSD symptoms over the course of the 1 year that separated our data collections. That is, we do not know the degree to which workers continued to experience these PTSD symptoms, nor the effect of such symptoms on job search behavior or motivations.

Negative layoff appraisals at Time 1 were, however, linked to objective underemployment the following year. For insight into these relationships, we look to the job search motivations of displaced workers (Kanfer, Wanberg, & Kantrowitz, 2001). Perhaps those with the strongest negative appraisals were most motivated to get back to work *quickly*, potentially because they were the primary or sole financial provider for their households, had pressing financial concerns, or were under pressure from spouses or other important people to get a job. This focus on re-employment speed could have resulted in accepting a sub-standard job and hence being underemployed. In addition, perhaps those with more negative layoff appraisals felt overwhelmed or lacked control over the situation so that they did not continue to look for jobs that met their expectations (e.g., Kinicki et al., 2000; Latack et al., 1995). Future research should explore these alternative and competing explanations for the causal mechanisms underlying the positive relationship between appraisal and objective underemployment, as well as the lack of relationship between PTSD symptoms and objective underemployment.

As predicted, workers' subjective assessments of their underemployment were negatively related to both new job satisfaction and affective organizational commitment, and positively related to intention to quit. Subjective underemployment plays a key role in determining if individuals feel they have re-attained a personal equilibrium in their lives. Our findings indicated that employees who do not view themselves as subjectively underemployed have obtained satisfying jobs, and are more committed to their organizations and less likely to think of quitting. These findings appear to reflect the employee's adaptation to job loss and subsequent reemployment, as predicted by Latack et al. (1995) and assumed

DOI: 10.1002/job

by unemployment researchers in investigations that expanded the definition of reemployment to include the quality of reemployment (e.g., Kinicki et al., 2000; Leana & Feldman, 1995; Wanberg, 1995). While these re-employed workers experienced the negative effects of job loss such as lost social capital, seniority, vacation benefits, and the like, new job satisfaction reflects a return to pre-job loss equilibrium and reduced experience of the discrepancies induced by the layoff (Latack et al., 1995.). All told, our results demonstrate the importance of considering subjective measures of underemployment when evaluating re-employment outcomes.

The differentiation of and relationship between objective and subjective underemployment (Feldman, 1996; Feldman et al., 2002; Khan & Morrow, 1991) as it has been represented in the job loss/unemployment literature was a major focus of this study. Results support both the conceptual and empirical distinctiveness of these related constructs. First, structural equation model results revealed that the constructs were empirically distinct. Next, the constructs were differentially related to other constructs in our model, as predicted in our mediation tests.

We hypothesized that PTSD symptoms and negative layoff appraisals both would be linked directly to increased objective underemployment. We further predicted that objective underemployment would fully mediate the relationships between PTSD symptoms and negative layoff appraisal at Time 1 and subjective underemployment at Time 2. These predictions were based on the expectation that the predictors of underemployment would be similar to the predictors of continued unemployment (Latack et al., 1995; Leana & Feldman, 1995). To our knowledge, no previous research has investigated the relationship between appraisal and underemployment. Results partially supported these hypotheses, as the PTSD symptoms to subjective underemployment relationship failed to meet the first condition for full mediation.

As predicted, the relationship between negative layoff appraisal and subjective underemployment was fully mediated by objective underemployment. This is an important finding for two reasons. First, the results provide evidence of the distinction between objective job characteristics and subjective underemployment assessments, supporting Feldman and colleagues' (2002) assertion of the importance of subjective evaluations of re-employment outcomes. Second, negative layoff appraisals are directly linked to objective underemployment, but only indirectly related to subjective underemployment. Thus a negative layoff appraisal may set in motion a process of lowering the displaced worker's expectations for the future. Laid-off workers with strong negative layoff appraisals are more likely to be employed in substandard jobs (objective underemployment), but these negative layoff appraisals do not directly influence perceptions of overqualification or feelings that the employee desires and deserves a better job. This type of psychological adjustment may be beneficial in the short term—helping workers to preserve their self-esteem during the period of unemployment and finding a new job, but such lowering of expectations could have a debilitating effect on career growth, resulting in serious consequences over the course of the worker's career such as diminishing the likelihood of advancement and lowering lifetime earning potential.

This finding presents three potential avenues for continued research. First, more research is needed to explore potential additional unmeasured mediators and/or moderators between appraisal and subjective underemployment to explore the nature of adaptation in underemployment. Second, research needs to focus on the long-term adaptive process to layoffs. Unemployment research traditionally compared unemployed workers to those who are employed cross-sectionally. There has been a shift in the last decade to longitudinal evaluations, but studies most often include only one follow-up time period. Thus research needs to include multiple follow-ups and to explore both short-term and long-term outcomes. Finally, this adaptation to unemployment and subsequent re-employment needs to be examined in the context of the changing labor markets faced by many laid-off workers. For example, the re-employment expectations of displaced workers could vary based on general economic downturns as evidenced by the local unemployment rate. These expectations

DOI: 10.1002/job

could also differ in locations in which the geographic area's primary employer is significantly downsizing or closing its operation, as well as with fundamental structural shifts based on changing technology or significant offshoring of particular positions. These complexities have not been explored to date.

We also explored the relationships between objective and subjective underemployment, and the outcomes of new job satisfaction, affective organizational commitment and intention to quit. Results underscored the critical distinction between objectively and subjectively determined underemployment and strongly supported the predicted link from objective to subjective underemployment. Results further indicated that subjective underemployment fully mediated the relationship between objective underemployment with affective organizational commitment and intention to quit. This relationship was as predicted, based upon subjective assessments of underemployment being the more proximal antecedent of the two dimensions of underemployment. However, subjective underemployment only partially mediated the relationship between objective underemployment and new job satisfaction. This finding suggests that the objective job characteristics of hierarchical level, pay, and skill utilization influence new job satisfaction. Taken together, however, our results attest to the importance of the individual's perceptions of being overqualified and feeling of desiring and deserving a better job in influencing employment attitudes and outcomes.

Finally, our study suggests further avenues of research that stem both from a clearer conceptualization of the objective dimensions and subjective perceptions of underemployment as well as from a desire to understand the long-term career impact of underemployment. Researchers have thus far examined proximal underemployment outcomes in terms of job satisfaction, commitment, and intention to quit, but none have examined the long-term impact of underemployment on individuals' careers. This is particularly relevant for displaced individuals since it begs the question of whether a single job loss or multiple layoffs over the span of an individual's career have a lasting impact on his/her overall career trajectory. Although this poses a challenge to researchers as it involves obtaining multiple wave data over several years from displaced workers post re-employment, it would further our understanding of whether the impact of a layoff is temporary or if there are long term effects on career outcomes. It also raises questions about other potential factors that may influence that outcome. Although our specific study examines laid-off employees who are at a higher risk of experiencing underemployment due to displacement, there is also a need to study underemployment in non-layoff situations. Some individuals who have not experienced a layoff may well be involuntarily underemployed, while others may be voluntarily (and happily) underemployed. Examining these from a careers perspective may bring a new understanding of how individual careers unfold.

Study limitations, contributions, and conclusions

Despite the strength of our study's design, four potential limitations should be noted. First, our design does not allow us to determine the extent to which problems linger across multiple time periods. Time series analysis might enable us to more accurately determine the extent to which underemployment perceptions remain and dissatisfaction persists. Second, the generalizability of our results may be limited to high-tech populations. The relatively high educational attainment of this sample may increase the likelihood of underemployment perceptions, as highly skilled employees may be particularly attuned to the match between job characteristics and their unique skill set. Also, there is the possibility of common method bias in relationships among Time 2 variables. However, our use of longitudinal data to predict Time 2 outcomes limits this concern. Finally, though fit results indicated support for model linkages, they do not negate possible alternative model specifications and connections. We based our model hypotheses on established theory, but future research should propose alternative models in order to better assess the relative validity of the model investigated herein.

DOI: 10.1002/job

Even given these limitations, this study provides an important extension of previous underemployment research. In particular, we examine an expanded set of predictors and outcomes of objective and subjective underemployment and explore a process chain related to these central constructs. Results highlight the importance of displaced employees' perceptions and subjective assessments of the job loss experience and their re-employment outcomes. Findings suggest that employment interventions are appropriate from the very early stages of unemployment, as employees' perceptions of layoff procedural fairness and PTSD symptoms stemming from job loss play a key role in appraisal and associated outcomes. Moreover, interventions should not focus on lowering the unemployment rate by putting people in jobs. Our focus should instead be on ensuring that laid-off workers completely resolve their unemployment, accomplished only when they find good jobs.

Author biographies

Frances M. McKee-Ryan is an Assistant Professor of Organizational Behavior in the College of Business at the University of Nevada, Reno. Her research primarily focuses on underemployment, job loss and unemployment, and stress and coping.

Meghna Virick is an Assistant Professor of Management at San Jose State University. Her current research interests include diversity and work family conflict, job loss and telecommuting.

Gregory E. Prussia is a Professor of Management in the Department of Management at Seattle University. His current research interests revolve around reemployment, occupational safety, and connectivity.

Jaron Harvey is a Ph.D. candidate in the Division of Management of the Price College of Business at the University of Oklahoma. His research interests include careers, psychological contracts, and socialization.

Juliana D. Lilly is an Associate Professor of Management at Sam Houston State University in Huntsville, Texas. Her research interests include organizational justice, psychological contracts and work-family conflict.

References

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, *63*, 1–18.

Bennett, N., Martin, C. L., Bies, R. J., & Brockner, J. (1995). Coping with a layoff: A longitudinal study of victims. *Journal of Management*, *21*, 1025–1040.

Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*, 238–246.

Bies, R. J., Martin, C., & Brockner, J. (1993). Just laid off but still a good citizen? Only if the process is fair. *Employee Rights and Responsibilities Journal*, *6*, 227–238.

Brockner, J., Wiesenfeld, B., & Martin, C. (1995). Decision frames, procedural justice, and survivors' reactions to job layoffs. *Organizational Behavior & Human Decision Processes*, *63*, 59–68.

Brooke, P., Russell, D., & Price, J. (1988). Discriminant validation of measures of job satisfaction, job involvement, and organizational commitment. *Journal of Applied Psychology*, *73*, 139–145.

Broom, D., D'Souza, R., Strazdins, L., Butterworth, P., Parslow, R., & Rodgers, B. (2006). The lesser evil: Bad jobs or unemployment? A survey of mid-aged Australians. *Social Science & Medicine*, *63*, 575–586.

DOI: 10.1002/job

Browne, M., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods and Research*, *21*, 230–258.
Camman, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire*. Ann Arbor, MI: University of Michigan.
Cooper, C. L., Dewe, P. J., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Thousand Oaks: Sage Publications.
Davidson, J. R. T., & Foa, E. B. (1991). Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV. *Journal of Abnormal Psychology*, *100*, 346–355.
Dooley, D., Prause, J., & Ham-Rowbottom, K. A. (2000). Underemployment and depression: Longitudinal relationships. *Journal of Health and Social Behavior*, *41*, 421–436.
Ehlers, A., & Clark, D. M. (2000). A cognitive model of persistent posttraumatic stress disorder. *Behaviour Research and Therapy*, *38*, 319–345.
Feldman, D. C. (1996). The nature, antecedents and consequences of underemployment. *Journal of Management*, *22*, 385–407.
Feldman, D. C., Leana, C. R., & Bolino, M. C. (2002). Underemployment and relative deprivation among reemployed executives. *Journal of Occupational and Organizational Psychology*, *75*, 453–471.
Gowan, M. A., & Gatewood, R. D. (1997). A model of response to the stress of involuntary job loss. *Human Resource Management Review*, *7*, 277–297.
Gowan, M. A., Riordan, C. M., & Gatewood, R. D. (1999). Test of a model of coping with involuntary job loss following a company closing. *Journal of Applied Psychology*, *84*, 75–86.
Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, *26*, 463–488.
Harman, H. (1976). *Modern factor analysis*. Chicago: University of Chicago Press.
Hemingway, M. A., & Conte, J. M. (2003). The perceived fairness of layoff practices. *Journal of Applied Social Psychology*, *33*, 1588–1617.
James, L., Mulaik, S., & Brett, J. M. (1982). *Causal analysis: Assumptions, models, and data*. Beverly Hills, CA: Sage Publications.
Johnson, W. R., Morrow, P. C., & Jones-Johnson, G. (2002). An evaluation of a perceived overqualification scale across work settings. *Journal of Psychology*, *136*, 425–441.
Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology*, *86*, 837–855.
Khan, L. J., & Morrow, P. C. (1991). Objective and subjective underemployment relationships to job satisfaction. *Journal of Business Research*, *22*, 211–218.
Kinicki, A. J., Prussia, G. E., & McKee-Ryan, F. (2000). A panel study of coping with involuntary job loss. *Academy of Management Journal*, *43*, 90.
Landis, R. S., Beal, D. J., & Tesluk, P. E. (2000). A comparison of approaches to forming composite measures in structural equation models. *Organizational Research Methods*, *3*, 186–207.
Latack, J. C., Kinicki, A. J., & Prussia, G. E. (1995). An integrative process model of coping with job loss. *Academy of Management Review*, *20*, 311–342.
Leana, C. R., & Feldman, D. C. (1995). Finding new jobs after a plant closing: Antecedents and outcomes of the occurrence and quality of reemployment. *Human Relations*, *48*, 1381–1401.
MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, *7*, 83–104.
Mathieu, J. E., & Farr, J. L. (1991). Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology*, *76*, 127–133.
Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in the organizational behavior. *Journal of Organizational Behavior*, *27*, 1031–1056.
Maynard, D. C., Joseph, T. A., & Maynard, A. M. (2006). Underemployment, job attitudes, and turnover intentions. *Journal of Organizational Behavior*, *27*, 509–536.
McKee-Ryan, F. M., Song, Z., Wanberg, C. R., & Kinicki, A. J. (2005). Psychological and physical well-being during unemployment: A meta-analytic study. *Journal of Applied Psychology*, *90*, 53–76.
Mikul, G., Scherer, K. R., & Athenstaedt, U. (1998). The role of injustice in the elicitation of differential emotional reactions. *Personality and Social Psychology Bulletin*, *24*, 769–783.
Mishra, A. K., & Spreitzer, G. M. (1998). Explaining how survivors respond to downsizing: The roles of trust, empowerment, justice, and work redesign. *Academy of Management Review*, *23*, 567–588.

DOI: 10.1002/job

Mol, S. S. L., Arntz, A., Metsemakers, J. F. M., Dinant, G.-J., Vilters-Van Montfort, P. A. P., & Knottnerus, J. A. (2005). Symptoms of post-traumatic stress disorder after non-traumatic events: Evidence from an open population study. *British Journal of Psychiatry*, *186*, 494–499.

Paul, K. I., & Moser, K. (2006). Incongruence as an explanation of the negative mental health effects of unemployment: Meta-analytic evidence. *Journal of Occupational and Organizational Psychology*, *79*, 595–621.

Seninger, S. (1997). Jobless spells and re-employment wages. *Applied Economics*, *29*, 1169–1177.

Smith, M., Schnurr, P., & Rosenheck, R. (2005). Employment outcomes and PTSD symptom severity. *Mental Health Services Research*, *7*, 89–101.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation modeling. *Sociological Methodology*, *13*, 290–312.

Spell, C. S., & Arnold, T. J. (2007). A multilevel analysis of organizational justice climate, structure, and employee mental health. *Journal of Management*, *33*, 724–751.

Tehrani, N., Cox, S. J., & Cox, T. (2002). Assessing the impact of stressful incidents in organizations: The development of an extended impact of events scale. *Counseling Psychology Quarterly*, *15*, 191–200.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, *46*, 259–293.

Wanberg, C. R. (1995). A longitudinal study of the effects of unemployment and quality of reemployment. *Journal of Vocational Behavior*, *46*, 40–54.

Wanberg, C. R., Bunce, L. W., & Gavin, M. B. (1999). Perceived fairness of layoffs among individuals who have been laid off: A longitudinal study. *Personnel Psychology*, *52*, 59–84.

DOI: 10.1002/job