Employee Reactions to Job Insecurity in a Declining Economy:

A Longitudinal Study of the Mediating Role of Job Embeddedness

Wendy M. Murphy
Babson College
231 Forest St.
Tomasso Hall 126
Babson Park, MA 02457

James P. Burton, Stephanie C. Henagan, Jon P. Briscoe
Department of Management
Northern Illinois University
245 Barsema Hall
DeKalb, IL 60115-2897

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Abstract

In the context of the *Great Recession*, we examined the relationships among perceptions of job insecurity, job embeddedness, and important individual work outcomes. Specifically, we tested the role of job embeddedness as a mediator between job insecurity and the withdrawal outcomes of intention to remain and job search behavior. Results of a longitudinal study of 115 working adults indicated that perceptions of job embeddedness fully mediated the relationship between perceptions of job insecurity and intention to remain and partially mediated job insecurity's relationship with job search behavior.

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What happens to people's perceptions of connection and well-being when their job security is threatened? Is it simply the threat of losing a job or is it their attachment to a greater web of connections that affects attitudes and behaviors? This article explores job embeddedness as an important explanatory mechanism between job insecurity and withdrawal outcomes.

In 2009, the U.S. economic and fiscal crisis took center stage, with economists predicting a bleak immediate future and painting an even more troubling picture for the long run (Auerbach & Gale, 2009). This time period has been characterized as the *Great Recession* due to a surge in layoffs, a sharp decline in consumer spending, a credit crisis, and a housing downturn, among other financial difficulties that spread globally (Temin, 2010). In this context, organizations took greater steps to streamline their businesses through downsizing and restructuring (Bureau of Labor Statistics, 2009b, 2009c). Trends such as these have been cited since the late 1980s as causing employees' increased feelings of insecurity over the continuance of their jobs (Ashford, Lee, & Bobko, 1989; Brockner, 1988; Brockner, Grover, Reed, & Dewitt, 1992). Employees' perceptions of job insecurity have, in turn, been shown to correlate with important outcomes for both individuals and organizations (see reviews by Cheng & Chan, 2008; De Witte, 2005; Sverke, Hellgren, & Naswall, 2002).

While recessions are often cyclical and difficult to predict, the evidence points to the saliency of job insecurity for some time after the recession (Auerbach & Gale, 2009) and we anticipate that many people will experience job insecurity at some point in their career. In this study, we examine perceptions of job embeddedness as a key mediating variable that may shed light on the mechanisms through which insecurity perceptions result in corresponding attitudes (intention to remain) and actions (job search behavior). Job embeddedness represents the variety

of forces, both on and off-the-job, that compel people to stay with their organizations (Mitchell & Lee, 2001). To this point, very little research has been conducted on the antecedents to job embeddedness and no one, to our knowledge, has examined how perceptions of job insecurity influence perceptions of job embeddedness. Specifically, we argue that when people perceive their job as secure, especially in times of economic turmoil, this job security positively influences their job embeddedness. Job embeddedness, in turn, results in increased intention to stay with their current organization and/or reduces the degree to which they search for another job. By contrast, if employees perceive their job security as very low, this job insecurity may cause them to question their perceptions of embeddedness (i.e., in effect, they may feel *disembedded* from their organization), which then negatively influences their intentions to stay or their job search behavior. Figure 1 presents our proposed conceptual model.

Please insert Figure 1 about here

THEORETICAL BACKGROUND AND HYPOTHESES

Job insecurity is considered a classic work stressor (Sverke et al., 2002) that theoretically operates through two mechanisms. The first mechanism is that the need for security is a basic motivation for working (Greenhalgh & Rosenblatt, 1984; Super, 1957). A lack of job security implies a cognitive appraisal of uncertainty in one's work environment, which is well-documented as a source of anxiety for employees (House, 1981). Thus, to reduce or cope with this uncertainty, employees may withdraw (Sverke & Hellgren, 2002) by searching for alternative jobs or establishing intentions to leave their organizations. The second mechanism hinges on the idea that the relationship between employer and employee is in part a social exchange, with obligations regarding what each party owes the other. As such, major

organizational changes such as layoffs, pay cuts, or other threats to job security violate an employee's psychological contract with the organization, thus provoking strong adverse reactions (Adkins, Werbel, & Farh, 2001; Ashford et al., 1989; Rousseau, 1990, 1995).

Early research defined job insecurity as "perceived powerlessness to maintain desired continuity in a threatened job situation" (Greenhalgh & Rosenblatt, 1984, p. 438). Several studies have relied on this definition while measuring job insecurity in a variety of ways (e.g., Ashford et al., 1989; Brockner et al., 1992; Kinnunen, Mauno, Nätti, & Happonen, 2000; Lim, 1996). However, researchers also argue that the construct of job insecurity should be assessed by restricting its definition and measurement to *perceptions* of security only, as opposed to including potential moderators of security, such as attitudinal, affective, or behavioral reactions to it (Jacobson, 1991; Johnson, Bobko, & Hartenian, 1992; Probst, 2002, 2003; Rosenblatt & Ruvio, 1996). Researchers concur that job insecurity is a subjective perception, whereby the same objective situation may be interpreted in various ways by different employees (De Witte, 2005; Sverke et al., 2002). Therefore, consistent with much of the research, we adopt a global view of job insecurity, defined as the perceived threat of job loss and concern over the future continuity of the current job (De Witte, 2005). Considering that perceptions of job insecurity are often correlated with the national unemployment rate (Nätti, Happonen, Kinnunen, & Mauno, 2005), we believe a focus on insecurity perceptions is especially important given the context of this research study (i.e., during the *Great Recession*). In this context, individuals may perceive very little job security, even if their particular job is objectively not in danger.

Consequences of Job Insecurity

Researchers have linked job insecurity to several important outcomes, including health and well-being, job satisfaction, organizational commitment, intention to leave, and performance, among others (see reviews by Cheng & Chan, 2008; De Witte, 1999, 2005; Sverke

et al., 2002). Studies on psychological contracts have argued that job security is part of the employee-employer relationship (Rousseau, 1990, 1995) and thus is a critical consideration for managers. In particular, voluntary turnover can be costly for organizations since it is typically the most qualified and valuable employees who leave first (Greenhalgh & Rosenblatt, 1984). Several empirical studies have shown that job insecurity is inversely related to intentions to remain (e.g., Ashford et al., 1989; Ameen, Jackson, & Strawser, 1995; Cavanaugh & Noe, 1999; Hellgren, Sverke, & Isaksson, 1999), a relationship further confirmed by meta-analyses (Cheng & Chan, 2008; Sverke et al, 2002).

Whereas the intention to quit is a cognitive response to a stressor, such as a threat to one's job security, behavioral reactions are also important for gauging the likelihood of turnover (Lee & Mitchell, 1994). A rational reaction for employees concerned about the security of their job is to seek more stable or secure employment (Greenhalgh & Rosenblatt, 1984) and several studies indicate that job insecurity is positively related to job search behavior (Adkins et al., 2001; Lim, 1996; Reisel & Banai, 2002). Job search behavior may or may not have negative organizational consequences, such as absenteeism or lack of punctuality (Lim, 1996), but it is certainly problematic for organizations as individuals actively engage in comparison with other opportunities for employment. In addition, the most qualified, and, therefore, valuable employees are likely to be those most attractive in a competitive job market and, consequently, most likely to find new employment in their search (Greenhalgh & Rosenblatt, 1984; Hartley, Jacobson, Klandermans, & van Vuuren, 1991). We suggest that if employees perceive the security of their job to be low, it is more likely that they will search for an alternative job and less likely they will indicate their intention to remain with their organization.

Hypothesis 1:   Perceived job insecurity is (a) positively related to job search behavior and (b) negatively related to intention to remain.

Whereas this portion of our study is a replication of previous empirical work, it is useful to establish these relationships in order to examine job embeddedness as a mediator.

The Role of Job Embeddedness

Mitchell and Lee (2001) developed the concept of job embeddedness to explain *why people stay* with their organizations. Mitchell, Lee and their colleagues argued that individuals become enmeshed or *stuck* in a web of connections in a job and/or community that make it hard for them to leave their organization (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Specifically, they argue that job embeddedness is made up of three components—fit, links, and sacrifice—that include both on and off-the-job factors. *Fit* refers to the degree to which employees perceive their job or community as matching other aspects of their life (e.g., job matches knowledge or skills of employee; employee perceives compatibility with local weather, community, etc.). *Links* refers to the number of connections employees have with people within their company (e.g., number of teams, committees, etc.) or throughout their community (volunteer work, community organizations, etc.). Finally, *sacrifice* refers to the tangible resources or psychological benefits people perceive they would give up if they left their job or community (e.g., salary, benefits, good day care, etc.).

Recently, research has examined a global, *perceptual*, measure of job embeddedness (Crossley, Bennett, Jex, & Burnfield, 2007). Whereas Mitchell, Lee, and their colleagues examined a composite measure of job embeddedness that predetermines that each component of embeddness will be calibrated in a uniform proportion (i.e., an equally weighted combination of links, fit, and sacrifice), Crossley and his colleagues expanded the nature of job embeddedness by examining overall subjective impressions of attachment to the organization. Although both *perceived* job embeddedness and other constructs, such as organizational commitment, are similar since they both deal with a person's attachment to an organization, there are significant

differences (Yao, Lee, Mitchell, Burton, & Sablynski, 2003). Perceptions of job embeddedness represent an overall sense of attachment to an organization, which includes both on and off-the-job factors that embed someone in an organization. In contrast, organizational commitment only deals with job-related factors. In addition, organizational commitment normally provides specific reasons (e.g., norms, affective reasons, what would be lost, etc.) for a person's attachment to an organization (Meyer & Allen, 1997). Job embeddedness, on the other hand, is a person's overall sense of attachment to the organization regardless of how much they like the organization or even if they want to be or choose to be embedded (see Crossley et al. (2007) for a detailed discussion of this issue).

In addition, examining job embeddedness in this way (i.e., perceptions) may represent a more accurate measurement of the construct compared to the traditional, composite approach. Recall that in using the composite approach (e.g., Mitchell et al., 2001), subjects are asked about issues that have been shown to embed employees in past studies in specific organizations. However, some of these questions may not be relevant to the subjects in a particular study. In addition, there may be questions missing that serve to increase perceptions of embeddedness of the employee in the organization (Ironson, Smith, Brannick, Gibson, & Paul, 1989). By focusing on perceptions of job embeddedness, participants in a study focus on what they consider to embed them, not just on the issues included in the survey. Further, participants, not the researchers, are weighing each aspect of links, fit, and sacrifice in the way that truly embeds them in their organizations (Ironson et al., 1989). Mitchell, Lee, and their colleagues equally weight links, fit, and sacrifice. It may be that links are more important for one employee, whereas sacrifice or fit may be more important for another. Research examining perceptions of job embeddedness shows a high correlation with the composite job embeddedness measure used by Mitchell and colleagues (Crossley et al., 2007). In addition, Crossley and colleagues (2007)

demonstrated that perceptions of job embeddedness predicted outcomes such as voluntary turnover better than objective measures of job embeddedness. This difference is consistent with research in other areas that has shown that perceptions of some event influence actual behavior more so than objective measures of the same event (e.g., Kristof, 1996).

While there are many possible mediating constructs we could examine in this study (e.g., perceived alternatives, organizational commitment, organizational identification, etc.), we chose to focus on job embeddedness, given its role in redefining withdrawal theory and research over the past few years and because job embeddedness has consistently been shown to predict important organizational outcomes over and above commitment and job alternatives (Jiang, Liu, McKay, Lee, & Mitchell, 2012). Job embeddedness was originally conceived as a key mediating construct between on-the-job and off-the-job factors and employee retention (Mitchell et al., 2001). In addition, empirical research has demonstrated its role as a mediating construct between organizational shocks (i.e., distinguishable events that jar employees toward deliberate judgments about their jobs) and employee retention (Holtom & Inderrieden, 2006; Mitchell, Holtom, & Lee, 2001). Perceptions of job insecurity may be one type of "shock" or stressor that challenges the status quo with respect to how an individual thinks about his or her job (Lee & Mitchell, 1994). A perception of job insecurity may challenge employees to reflect on how embedded they really are in their organizations (i.e., *How attached am I to this organization?*, etc.).

We argue that when someone perceives job insecurity, this assessment leads to a decreased perception of job embeddedness, which then decreases intention to stay or increases job search behavior (See Figure 1). Social bonding theory (Hirschi, 1969) and the disruption hypothesis (Wilson & Schooler, 1991) can help explain this mediation process. Specifically, the disruption hypothesis argues a person's current preferences/opinions/beliefs (e.g., job

embeddedness) can be disrupted when someone's attention is directed toward it in some way (e.g., job insecurity occurs in the organization or economy). This disruption causes a person to pause and reevaluate a particular situation rationally and analytically. In our situation, this revaluation may cause a person's bond with the organization (e.g., job embeddedness) to weaken. Hirschi (1969) argues that when individuals have a meaningful bond or attachment with a particular organization, they are motivated to maintain that bond. Individuals with high levels of embeddedness are likely to perceive higher levels of attachment to the organization, whether they want to or not (Crossley et al., 2007). On the other hand, if this bond is weakened and embeddedness is reduced, there is less motivation on the part of the employee to maintain the attachment to the organization. Therefore, these individuals may become motivated to seek alternative employment or at least consider leaving the organization.

Although it is possible that when someone perceives insecurity (i.e., disruption), their bond may become stronger with the organization (i.e., more embedded), we believe the opposite is more likely to occur. For example, when employees fear that organizational members will be dismissed (as in the case of a downsizing situation) surviving employees risk losing important links. A loss of key work relationships has been shown to deprive one from fulfilling belonging-related needs (Cohen & McKay, 1984), which could also result in a reduction of perceptions of fit (e.g., this organization no longer meets my needs) and sacrifice (e.g., I'm no longer giving up as much if I leave). The loss or absence of social connections at work has been shown to influence employee turnover decisions (Mossholder, Settoon, & Henagan, 2005). Perceptions of job insecurity could also be interpreted as a change in organizational values, or *image violation*, causing an employee to question whether his or her personal values, career goals, or plans for the future fit with the larger organizational culture (Holtom & Inderrieden, 2006; Mitchell et al., 2001).

We therefore hypothesize a mediated model in which perceptions of job insecurity can lead to reduced perceptions of fit with the organization because of unmet expectations (Rousseau, 1990, 1995), a reduction of ties associated with the loss of coworkers, reduced perception of sacrifice involved in leaving the organization because it no longer meets security and/or relational needs, and perhaps even an intentional weakening of ties corresponding to anticipated departure from the organization (cf. Mitchell et al., 2001). All of these factors represent a decrease in *perceptions* of job embeddedness.

As an explanation for *why people stay* with their organizations (Mitchell & Lee, 2001), perceptions of job embeddedness are expected to be associated with withdrawal outcomes such as intention to remain and job search behavior. Previous job embeddedness studies have demonstrated its link with important outcomes such as turnover (Allen, 2006; Crossley et al., 2007; Jiang et al., 2012; Mitchell et al., 2001) and job performance and organizational citizenship behaviors (Lee, Mitchell, Sablynski, Burton, & Holtom, 2004). Therefore, we suggest that one way that job insecurity influences withdrawal-related outcomes is through the weakening of the employee's bond to the organization, resulting in greater levels of search behavior and lower levels of intention to remain.

Hypothesis 2:   Perceived job embeddedness will mediate the relationship between perceived job insecurity and (a) job search behavior as well as (b) intention to remain.

METHOD

Procedures and Participants

In this study, we collected all responses via a web-based survey. We began the sampling procedure for Phase 1 of this study during the spring of 2009, a time during which the U.S. and world economy were seen as very fragile and unemployment was increasing rapidly (Bureau of

Labor Statistics 2009b, 2009c). We utilized undergraduate and graduate management students from a large public university in the Midwestern United States. Specifically, we asked 137 undergraduate and 107 graduate students to send a link to the survey to at least two, full-time employed, adult workers. The graduate students were full-time working adults, and therefore also filled out the survey themselves. In the web-based survey, we impressed upon the workers that their participation was voluntary and their responses would be kept confidential. During this time, participants answered questions related to their perceived job insecurity, a variety of demographic variables, their intentions to remain with their organizations, and their job search behaviors. In addition, the participants provided their e-mail addresses and were informed that they would be receiving a second survey in approximately six months. Students received extra credit in their courses for completed and returned surveys.

Approximately six months after the first survey, during November 2009, a second, web-based survey was sent to the employed individuals who completed the Time 1 survey and had provided their e-mail addresses. The six-month time lag was chosen to provide adequate time between measures to allow for a causal effect to occur, yet not enough time to lose the impact of the pressures likely contributing to insecurity. In this second survey, participants answered questions regarding their level of job embeddedness and the dependent measures. Participants at both Time 1 and Time 2 were entered into a random drawing for a $100 gift card.

At Time 1, we asked 137 undergraduate students and 107 graduate students at an institution to send the survey link to two working adults. This procedure resulted in a link being sent to approximately 488 working adults. If we add these 488 to the 107 graduate students who were also eligible to take the survey, our potential sample size at Time 1 would be approximately 595 working adults. We received 375 complete responses from full time (i.e., >30 hours per week) working adults for a 63.03% response rate. The actual response rate is likely higher since

we cannot be sure that all 137 undergraduates and 107 graduate students actually sent the link to two working adults.

We chose to focus our attention on those participants who had been employed by their current employer for more than three months to avoid bias in some of our measures (e.g., more accurate perceptions of job insecurity). This criterion resulted in a final sample of 353 working adults. At Time 2, 123 of the 353 participants from Time 1 completed the survey, a 34.8% response rate from initial participants and a 20.6% response rate from our initial potential sample size. We included only those individuals who were still employed with their original organization, resulting in a final sample size of 115.

Of these 115 participants, fifty-seven percent were female. The participants averaged 39.65 (SD = 12.67) years of age, 9.23 (SD = 8.23) years with their employer, and 19.12 (SD = 13.30) years of total work experience. In addition, the average employee in the sample worked 45.67 (SD = 7.85) hours per week. Sixty-seven percent of the participants were married or living with a partner (23.5% were single and approximately 10% of the subjects were divorced or widowed). Fifty-two percent of the participants had achieved at least a bachelor's degree. Eighty-five percent of the respondents classified themselves as Caucasian, while the remaining respondents indicated they were Hispanic (7.0%), Asian (4.3%), or African American (2.6%). The participants in this study worked in a variety of industries, with the largest percentages of employees working in the business and finance industry (27%) or healthcare industry (16%). The remaining participants indicated they worked in government, education, science/engineering, sales, construction, manufacturing, transportation, and protective services. The average income for this sample was approximately $70,000 (SD = $39,792).

Comparing the individuals who completed both surveys to individuals who did not demonstrated no significant differences for age, work experience, industry, marital status,

organizational tenure, hours worked, income, or ethnicity. However, there were significant differences for educational level and gender. Specifically, females were more likely to complete both surveys than males (t = -2.02, p < .05). In addition, individuals who reported completing experiencing education beyond high school (e.g., associate, bachelor, master, Ph.D.) were more likely to have completed both surveys than individuals with only a high school education (t = 2.55, p < .01). We, therefore, controlled for gender and educational level in all analyses.

Measures Time 1

All items were measured on a 7-point scale (1 = strongly disagree; 7 = strongly agree) and averaged to form composite measures of their respective construct.

Perceived job insecurity. We measured participant perceptions of job insecurity using ten items (mean = 3.11, SD = 1.17, α = .91) from Oldham, Kulik, Stepina, and Ambrose (1986). Positively-worded items in the measure were reverse-scored to indicate job insecurity. Sample items included, "If my current organization were facing economic problems, my job would be the first to go" and "Regardless of economic conditions, I will have a job at my current organization."

Intention to remain. Participants rated their intention to remain with their organization using three items (mean = 4.75, SD = 1.63, α = .90) from Armstrong-Stassen and Ursel (2009). Sample items included, "I expect to continue working as long as possible in this organization" and "Barring unforeseen circumstances, I would remain in this organization indefinitely."

Job search behavior. Participants answered five items (mean = 2.62, SD = 1.46, α = .91) from Kinicki and Latack (1990) to rate the degree to which they engaged in job search behaviors in the last few months. Sample items from this scale included, "In the last few months, I have devoted a lot of time to looking for a new job" and "In the last few months, I have focused my time and energy on job search activities."

Measures Time 2

Perceived job embeddedness. Participant level of perceived job embeddedness was measured using seven items (mean = 4.47, *SD* = 1.29, α = .90) developed by Crossley and colleagues (2007). The participants in this study were asked to consider both the organizational and community factors that bond them to their organization and then responded to the embeddedness items (e.g., "I feel tied to my organization" and "I am tightly connected to my organization").

Intention to remain. Participants rated their intention to remain with their organization at Time 2 (mean = 5.03, SD = 1.58, α = .90) using the same three items reported at Time 1.

Job search behavior. Participants rated the degree to which they engaged in job search behaviors in the last few months at Time 2 (mean = 2.42, SD = 1.40, α = .89) using the same five items reported at Time 1.

Controls. To help control for alternative explanations to our findings, we controlled for employee gender and tenure. Males and females have been shown to differ in their level of job insecurity as well as in how insecurity affects other variables (Rosenblatt, Talmud, & Ruvio, 1999). In addition, employee tenure with an organization is likely to influence perceptions of job security (De Witte, 2005) and embeddedness (Mitchell & Lee, 2001) as well as intentions to search for another job (e.g., Bretz, Boudreau, & Judge, 1994) or remain with the company (e.g., Parasuraman, 1982).

In addition, given the close relationship between job embeddedness and other attachment variables, we also controlled for a person's loyalty to his or her current organization at Time 1 with four items (mean = 5.24, *SD* = 1.39, α = .89) from Patchen (1965). Sample items included, "I would be willing to spend the rest of my career working for this company" and "If I had to choose all over again, I would take a job with this company." We chose this scale due to its

conceptual overlap with other common attachment variables. For example, the items used to

measure loyalty overlap with common measures for both affective and continuance commitment

(e.g., Meyer & Allen, 1997) as well as organizational identification (e.g., Johnson, Johnson, &

Heimberg, 1999), thereby helping control for the effect that alternative attachment constructs

might have on the relationship between job insecurity and the dependent variables. Principle axis

factor analysis with Varimax rotation demonstrated that the items designed to measure job

embeddedness and organizational loyalty loaded on separate factors. Finally, as previously

noted, educational level was also controlled for because of its potential impact on response

behaviors.

RESULTS

Table 1 presents the means, standard deviations, and correlation matrix for the variables

included in this study. Principle axis factor analysis with Varimax rotation revealed that the

items designed to measure the variables loaded on separate factors (with values greater than .50),

with the exception of the control measures Organizational Loyalty and Intent to Remain at Time

1, which loaded together on the same factor.

Please insert Table 1 about here

We predicted in Hypotheses 1a and 1b that employees' perceptions of job insecurity

would be related to two important work outcomes. The correlation matrix shows that perceptions

of job insecurity at Time 1 were strongly related to intentions to remain at Time 2 ($r = -.30$, $p <$

.001). However, there was not a significant relationship between perceptions of job insecurity at

Time 1 and job search behavior at Time 2 ($r = -.06$, n.s.). To further test these relationships, we

ran ordinary least squares regression controlling for the effects of gender, organizational tenure,

educational level, organizational loyalty, and the measurement of the particular dependent variable at Time 1. The addition of job insecurity to the regression equation explained an additional 2.1% of the variance in intention to remain ($F = 5.01$, $p < .05$), but no significant variance in job search behavior ($\Delta R^2 = .02$, $F = 2.98$, n.s.). Together, these results support Hypothesis 1b and confirm findings in previous studies (Ameen et al., 1995; Ashford et al., 1989; Cavanaugh & Noe, 1999; Hellgren et al., 1999).

Hypotheses 2a and 2b predicted perceptions of job embeddedness would mediate the relationships between job insecurity and the outcome variables. We utilized the approach to testing simple mediation suggested by Preacher and Hayes (2004) as well as Edwards and Lambert (2007). This approach allowed us to examine the total, indirect, and direct effects of job insecurity on the outcome variables, job search behavior and intentions to remain, and has been demonstrated to have more power and to be more accurate in detecting mediation than other methods (e.g., causal steps approach, product-of-coefficients approach, etc.; see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Preacher & Hayes, 2004). For full mediation to occur, one would expect to find significant total and indirect effects. For partial mediation to occur, we would expect to find a significant direct effect (i.e., the path from job insecurity to the dependent variables) and indirect effect. To formally test the total and indirect effects, we utilized 1,000 bootstrapping samples with 95% bias-corrected confidence intervals. The use of bootstrapping has been shown to be important in these types of analyses as it does not require a normal sampling distribution, which is often violated when examining indirect effects (i.e., the product of the coefficients for path a and path b) in mediation models (Efron & Tibshirani, 1993).

To test mediation using this approach, three equations were used:

(1) Job Embeddedness = a_0 + a_1(Gender) + a_2(Educational Level) + a_3(Organizational Loyalty) + a_4(Job Insecurity)

(2) Intention to Remain at Time 2 = b_0 + b_1(Gender) + b_2(Education) + b_3(Organizational Tenure) + b_4(Organizational Loyalty) + b_5(Intention to Remain at Time 1) + b_6(Job Embeddedness) + b_7(Job Insecurity).

(3) Job Search Behavior at Time 2 = c_0 + c_1(Gender) + c_2(Education) + c_3(Organizational Tenure) + c_4(Organizational Loyalty) + c_5(Job Search Behavior at Time 1) + c_6(Job Embeddedness) + c_7(Job Insecurity).

Equation 1 was then used in Equation 2 (or 3) to calculate the various path coefficients and effects (i.e., indirect and total effect). Table 2 presents the coefficient estimates from Equations 1 through 3. Note that the indirect effect estimate is the product of path a (i.e., job insecurity to job embeddedness) and path b (i.e., job embeddedness to the intent to remain) or path c (i.e., job embeddedness to job search behavior). The total effect estimate is simply the combination of the indirect effect and the direct effect (i.e., job insecurity to the dependent variable).

After controlling for employee gender, organizational tenure, loyalty, and educational level, the results demonstrated that there was a significant mediating effect for job embeddedness in the relationship between job insecurity and intention to remain, and a partial mediating effect for job search behavior. Specifically, we found a significant total ($a_4 b_6 + b_7 = -.21$, $p < .05$) and indirect effect ($a_4 b_6 = -.07$, $p < .05$), but no direct effect ($b_7 = -.14$, n.s.) for intention to remain. For job search behavior, we found a significant indirect ($a_4 c_6 = .07$, $p < .05$) and direct effect ($c_7 = -.25$, p $< .05$), but no total effect ($a_4 c_6 + c_7 = -.18$, n.s.), indicating partial mediation. Taken together, these results support Hypotheses 2a and 2b, although the direction of the direct relationship between job insecurity and job search behavior was opposite to what was expected. Figures 2 and 3 present these findings.

Please insert Table 2 and Figures 2 and 3 about here

DISCUSSION

This research has demonstrated the critical role of job embeddedness as a mediator between perceptions of job insecurity and turnover intentions. Our study is one of the first to examine antecedents to job embeddedness, which is an important determinant of individual and organizational outcomes. Furthermore, since job embeddedness has the potential to mediate the well-established negative effects of job insecurity on retention, we have broadened the job insecurity literature and determined that both of these perceptual variables are important to manage to mitigate the effects of an uncertain context. Specifically, the results of our study provide some evidence that perceptions of job insecurity can reduce perceptions of job embeddedness, which in turn may decrease intention to remain and increase job search behavior. These results were found over and above other variables that could influence these relationships (e.g., loyalty to the organization, organizational tenure, etc.).

This study contributes to our understanding of job embeddedness. That perceptions of job embeddedness are influenced by perceptions of job insecurity is important for future research and theory relevant to both individuals and organizations. Theoretically, this finding means that employees' perceptions of job insecurity have a direct impact on their perceptions of job embeddedness, an important predictor of retention. To this point, the majority of the research on job embeddedness has focused on its outcomes. Our study is one of the first to investigate the potential antecedents of job embeddedness. Thus, organizations should take steps to decrease perceptions of job insecurity and to develop a high level of embeddedness in their best

employees to help diminish the potential for withdrawal, especially during times of economic turmoil (see also Mitchell, Holtom, & Lee, 2001).

The timing of this study, during the *Great Recession*, when the saliency of job insecurity was particularly high, is an important contextual factor. National and regional unemployment rates are indicators of real job security (De Witte, 2005). At the time of this study, the unemployment rate was 8.9% in the United States and 9.4% in the region from which most participants were drawn (Bureau of Labor Statistics, 2009a). The unemployment rate in this region was up 277% from the previous year and it was in the top five states for mass layoffs, up 123% from the past year (Bureau of Labor Statistics, 2009b). Therefore, it is likely that these macroeconomic changes are one source of the perceived job insecurity measured in this study (Burgard, Brand, & House, 2009). Whereas organizations have little control over prevailing economic conditions, they can have an impact on perceptions of job insecurity and embeddedness. This study underscores the importance of attentiveness to environmental threats to perceptions of job insecurity for employee embeddedness and retention.

It is notable that the Bureau of Labor Statistics (2012) shows that voluntary turnover decreased during the recession and prevailing research suggests that voluntary turnover generally decreases during a recession (Bewley, 1999). However, this means that a recessionary context is a particularly conservative environment in which to test the relationships among job insecurity, job embeddedness, and intentions to remain. Since valuable employees, who are also the most sought after in the job market, are the ones most likely to find alternate employment, this pattern is likely heightened during a recession. It is also well known that as the economy swings into a recovery, voluntary turnover rises (Bewley, 1999; Bureau of Labor Statistics, 2012). These findings suggest that managers should begin steps now to increase the job security and job

embeddedness of their most valuable employees, since during an economic recovery the relationships among these variables are likely to be even more robust.

The context of our study could help explain our findings regarding job search behavior. As illustrated in Figure 2, the direct relationship between perceived job insecurity and job search behavior was negative, which is the opposite of what was hypothesized. As discussed by Staufenbiel and König (2010), job insecurity is traditionally thought of having a negative influence on withdrawal behaviors. The traditional view is that employees experience insecurity as a stressor and this stress negatively influences employee behavior, such as lower performance and higher absenteeism. However, insecurity could also have a positive influence on these types of behaviors because employees attempt to work harder or be absent less to show they are valuable to the organization (Staufenbiel & König, 2010). Another explanation, according to Bewley (1999), is that employees may fear that new jobs will be even more insecure, due to the notion that they would be more likely to lose their job if layoffs were to occur in the new organizations (i.e., last in, first out). We believe that this fear of the insecurity of a new job may be what is occurring in our sample, given the context of our study.

In addition, the counter-intuitive finding, that job insecurity negatively affects job search behavior, highlights that a recession may indeed reflect a strong context that influences previously taken-for-granted relationships. Given the currently volatile nature of employment and that employees are likely to weigh the risks and benefits prior to engaging in the search for a new job, the lack of available job opportunities in a poor economy may not provide enough benefit for employees to consider a search that might entail some degree of risk to one's current job (e.g., lowered productivity, having search behaviors discovered by current employer) or higher job insecurity in a new organization. Future research is needed to examine these possibilities in other contexts.

Practical Contributions

Research has shown that feelings of uncertainty are stressful (House, 1981) and that job insecurity may be as distressing as job loss itself (Dekker & Schaufeli, 1995). Thus, it is imperative that organizations communicate with employees about major changes that may or may not happen to decrease perceptions of threat and feelings of loss of control associated with the unknown. Understanding the relationship between job insecurity and job embeddedness may motivate organizations to facilitate greater employee involvement and change the way that training and socialization occur (e.g., developing links, perceptions of sacrifice, fit, etc.). For example, managers and organizations could take steps to reduce perceptions of job insecurity, especially during times of uncertainty, by communicating sufficient and accurate information to employees (Adkins et al., 2001). Given that job embeddedness mediates the relationship between job insecurity and intentions to remain, organizations should be advised to take steps to engage in *long-term* career development with their best employees (Mitchell et al., 2001) or establish strong mentoring or coaching programs in the workplace (Holtom, Mitchell, & Lee, 2006). In addition, organizations should recruit from local neighborhoods and encourage their employees to become active in the community via volunteer opportunities to increase their embeddedness in the community (Holtom et al., 2006).

Limitations and Future Research

This study has some limitations which should be kept in mind when interpreting the results. Whereas it is unknown whether participants experienced objective job insecurity (e.g., through organizational layoffs), as stated previously, participants' feelings of uncertainty due to perceived organizational instability would be more salient for outcomes than would actual instability. Some employees may not have enough knowledge of organizational-level events and decisions to make an objective assessment of their job insecurity and they would thus be basing

their subsequent behavioral decisions on their personal interpretations of what is happening. These interpretations may be influenced by objective labor market statistics, which were highly publicized during the *Great Recession* and may have biased some participants toward feelings of job insecurity. This context may be seen as a limitation to the generalizability of the study, although there are still important contributions to the understanding of the relationships between job insecurity and job embeddedness.

In the current research, we utilized a perceptual measure of job embeddedness. Using this measure did not allow us to parcel out the specific organizational and community factors that may be independently influencing the relationships we proposed. Although the research findings examining embeddedness in this fashion (i.e., on and off-the-job) have been inconsistent (Jiang et al., 2012), future researchers should consider using items developed by Mitchell, Lee and their colleagues (Lee et al., 2004) to examine on-the-job embeddedness and off-the-job embeddedness separately as mediators between perceptions of job insecurity and a variety of both work and non-work related outcomes. In addition, in our efforts to minimize survey length, job embeddedness was only measured at Time 2 whereas other outcomes were measured at both Time 1 and Time 2, thus we were unable to control for the effects of job embeddeness at Time 1.

Future research could examine the role that individual difference variables such as negative affectivity, conscientiousness, locus of control, and so forth play in the relationships between job security, embeddedness, and a variety of outcome variables. For example, negative affectivity likely directly influences one's perceptions of job insecurity and job embeddedness. In addition, the relationship between insecurity and embeddedness may be even stronger for someone with high levels of negative affectivity. Another potential limitation to our study is the omission of additional attachment constructs such as organizational commitment. Although we controlled for general attachment by including a measure of organizational loyalty that included

items similar to ones found in the most common measures of commitment, we cannot be certain in our study of the incremental variance predicted by job embeddedness over and above commitment. We recommend that future studies include measures of negative affectivity and organizational commitment, including affective and continuance commitment, as these variables may overlap with job embeddedness and may contribute to both job insecurity and job embeddedness.

Future research should also include measures of perceived job alternatives to rule out an additional alternative explanation to our findings. It may be that the relationship between insecurity and job embeddedness is reduced in the presence of low perceived job alternatives. Therefore, future research should examine the moderating effect of this variable on the relationship between insecurity and embeddedness. Although the lack of measurement of commitment and job alternatives is a potential limitation, we should note that past research has demonstrated the utility of the job embeddedness construct due to its consistent prediction of a variety of outcomes over and above other attachment variables such as affective commitment and job alternatives (Jiang et al., 2012).

The longitudinal format of this study was intended to enhance the results by allowing for some evidence of causal relationships, but it could have also allowed for the entrance of certain biases. Perceptions of job insecurity were measured at Time 1, and perceptions of job embeddedness and withdrawal outcomes were measured at Time 2, raising the possibility that there were other changes over this time period that could have affected our participants. It is well known that longitudinal data collection opens the door for alternative explanations for the relationships between variables, such as interim, maturation, and seasonal effects, to name a few (see Cook & Campbell, 1979, for a review). As stated previously, we chose to implement a time lag between measures to test the hypothesized model, allowing for the progression of reactions

expected to follow from perceptions of job insecurity. This time lag, of course, did not prove causality, but was one step closer to showing causal relationships than would been possible through a cross-sectional study.

The longitudinal data collection method lent itself to participant attrition across time, which could reduce generalizability of the study results. In addition, the rigor of the data collection methodology may be called into question. By relying on respondent-driven sampling to procure our sample of working adults, we relinquished some control of the process, potentially allowing some degree of sampling bias and further limiting generalizability (Biernacki & Waldorf, 1981). We do note, however, that this approach has been used by many researchers to obtain data from employees in a variety of firms and industries (e.g., Ashforth, Kreiner, Clark, & Fugate, 2007; Eddleston, Veiga, & Powell, 2006; Powell & Greenhaus, 2010). Further, the use of incentives and quotas in the present study should have helped to alleviate some of the potential for sampling bias (Heckathorn, Semaan, Broadhead, & Hughes, 2002). Whereas respondent-driven sampling may help assuage respondent fears related to reporting withdrawal intentions and behaviors, future research might consider instead soliciting employees from selected organizations or industries with different degrees of job insecurity based on objective economic trend indicators.

Conclusion

Job insecurity is constantly an issue whether widespread or focused upon a select set of companies or individuals. The recession that started in 2008 provided a unique chance to study job insecurity under an (assumed) widespread manifestation, but it is an issue that is always present to some degree. This study contributes to research on job insecurity and stress by empirically demonstrating the mediating role of perceptions of job embeddedness in its link to turnover attitudes and behaviors. By focusing on improving their fit, links, and possibly sacrifice,

employees may be able to weather the financial storms of the future and stay focused on their current job. In the long run, this can provide a benefit for employees, organizations, and society at large.

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TABLE 1

Means, Standard Deviations, and Correlations of Study Variables[a, b]

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Intention to Remain (Time 2)	5.03	1.58	(.90)								
2. Job Search Behavior (Time 2)	2.42	1.40	-.31***	(.89)							
3. Job Embeddedness (Time 2)	4.47	1.29	.59***	-.35***	(.90)						
4. Job Insecurity (Time 1)	3.11	1.17	-.30***	-.06	-.27***	(.91)					
5. Intention to Remain (Time 1)	4.75	1.63	.69***	-.31***	.45***	-.20*	(.90)				
6. Job Search Behavior (Time 1)	2.62	1.46	-.19*	.37***	-.21*	.07	-.26**	(.91)			
7. Loyalty to Organization (Time 1)	5.24	1.39	.53***	-.20*	.44***	-.28***	.78***	-.34***	(.89)		
8. Organizational Tenure	9.23	8.23	.38***	-.18	.25**	-.30***	.31***	-.12	.30***		
9. Gender	- -	- -	-.01	-.04	-.05	-.17	.08	-.01	.06	.08	
10. Educational Level	- -	- -	-.26**	.16	-.16	.07	-.15	.09	-.11	-.36***	.25**

[a] *p* < .05, **p* < .01, ***p* < .001, *n* = 115
[b] Numbers in parentheses represent coefficient alpha.

TABLE 2

Coefficient Estimates for Mediation Models[a,b]

Variables	Job Embeddedness	Intention to Remain Time 2	Job Search Behavior Time 2
Gender	-.22	-.14	-.31
Education Level	-.10	-.10	.11
Loyalty to Organization	.36***	-.19*	.04
Organizational Tenure	--	.02	-.02
Intention to Remain (Time 1)	--	.60***	- -
Job Search Behavior (Time 1)	--	- -	.29***
Job Embeddedness	--	.40***	-.36***
Job Insecurity	-.18*	-.14	-.25*
Total R^2	**.24***	**.62***	**.27***

[a] *p* < .05, **p* < .01, ***p* < .001
[b] Entries under each dependent variable are unstandardized coefficient estimates.

Figure Captions

Figure 1. Hypothesized model

Figure 2. Path Coefficients and Indirect and Total Effects for the Mediation Model for Job

Search Behavior

Figure 3. Path Coefficients and Indirect and Total Effects for the Mediation Model for Intention
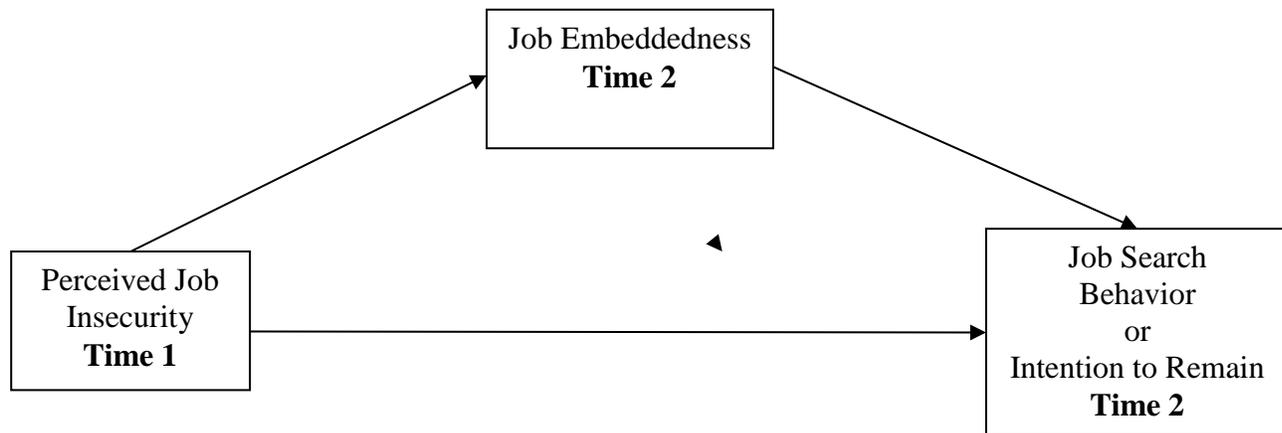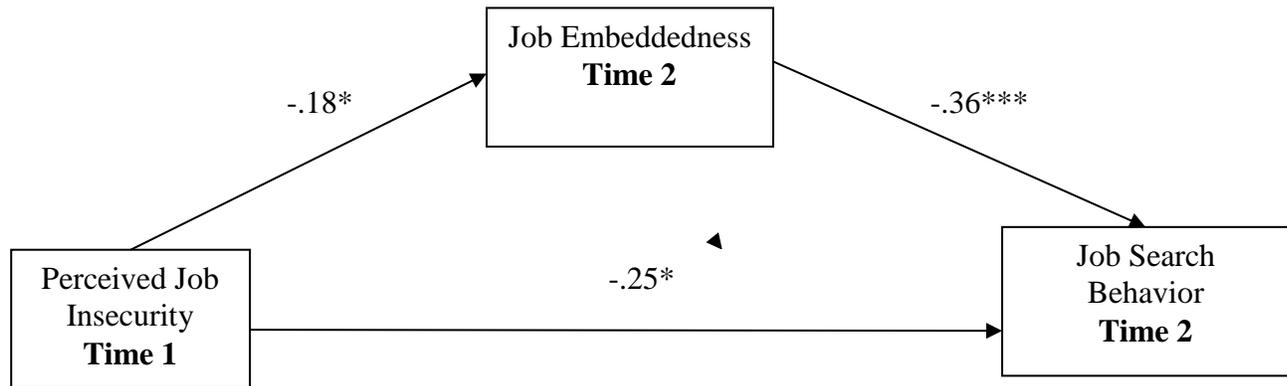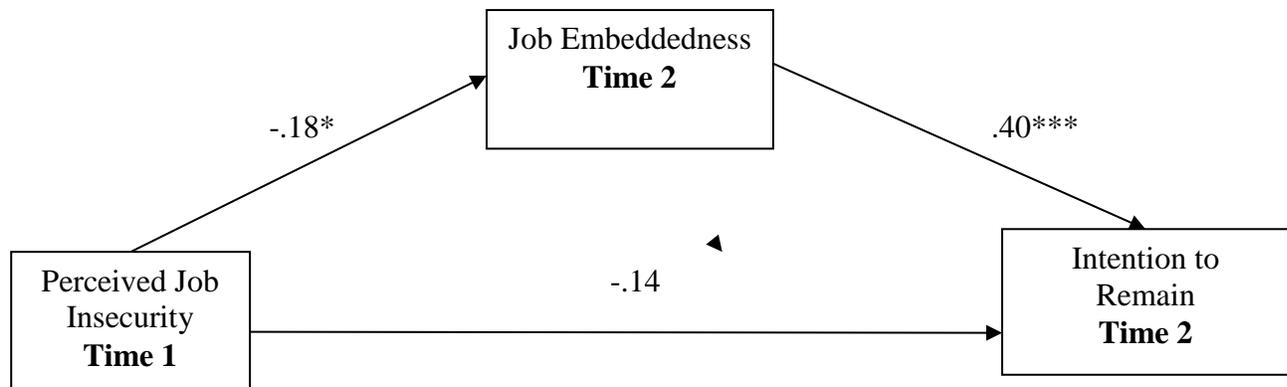
to Remain

FIGURE 1


```
            ┌─────────────────────┐
            │  Job Embeddedness   │
            │      Time 2         │
            └─────────────────────┘
           ↗                        ↘
┌──────────────────┐          ◄      ┌──────────────────────┐
│ Perceived Job    │                 │   Job Search         │
│ Insecurity       │────────────────▶│   Behavior           │
│    Time 1        │                 │     or               │
└──────────────────┘                 │ Intention to Remain  │
                                     │     Time 2           │
                                     └──────────────────────┘
```

FIGURE 2[a,b]

	Direct Effect	Indirect Effect	Total Effect
Job Search Behavior (Time 2)	-.25*	.07*	-.18
Bias-Corrected 95% Confidence Interval[c]	-.48, -.05	.01, .14	-.43, .04

[a] * $p < .05$, ** $p < .01$, *** $p < .001$

[b] All analyses controlled for gender, tenure with organization, level of education, loyalty to the organization, and the measurement of job search behavior at Time 1.

[c] The significance test for the indirect and total effect was calculated using bias-corrected 95% confidence intervals using 1,000 bootstrap estimates.

FIGURE 3[a,b]

	Direct Effect	Indirect Effect[c]	Total Effect
Intention to Remain (Time 2)	-.14	-.07*	-.21*
Bias-Corrected 95% Confidence Interval[c]	-.30, .00	-.15, -.01	-.37, -.06

[a] * p < .05, ** p < .01, *** p < .001
[b] All analyses controlled for gender, tenure with organization, level of education, loyalty to the organization, and the measurement of intention to remain at Time 1.
[c] The significance test for the indirect and total effect was calculated using bias-corrected 95% confidence intervals using 1,000 bootstrap estimates.