



1-1-2004

## The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover

Thomas W. Lee  
*University of Washington*

Terence R. Mitchell  
*University of Washington*

Chris J. Sablinski  
*California State University, Sacramento, csablinski@pacific.edu*

James P. Burton  
*University of Washington-Bothell*

Brooks C. Holtom  
*Georgetown University*

Follow this and additional works at: <https://scholarlycommons.pacific.edu/esob-facarticles>



Part of the [Business Commons](#)

---

### Recommended Citation

Lee, T. W., Mitchell, T. R., Sablinski, C. J., Burton, J. P., & Holtom, B. C. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal*, 47(5), 711–722. DOI: [10.5465/20159613](https://doi.org/10.5465/20159613)  
<https://scholarlycommons.pacific.edu/esob-facarticles/210>

This Article is brought to you for free and open access by the Eberhardt School of Business at Scholarly Commons. It has been accepted for inclusion in Eberhardt School of Business Faculty Articles by an authorized administrator of Scholarly Commons. For more information, please contact [mgibney@pacific.edu](mailto:mgibney@pacific.edu).

## THE EFFECTS OF JOB EMBEDDEDNESS ON ORGANIZATIONAL CITIZENSHIP, JOB PERFORMANCE, VOLITIONAL ABSENCES, AND VOLUNTARY TURNOVER

THOMAS W. LEE  
TERENCE R. MITCHELL  
University of Washington, Seattle

CHRIS J. SABLINSKI  
California State University, Sacramento

JAMES P. BURTON  
University of Washington, Bothell

BROOKS C. HOLTOM  
Georgetown University

**This study extends theory and research on job embeddedness, which was disaggregated into its two major subdimensions, on-the-job and off-the-job embeddedness. As hypothesized, regression analyses revealed that off-the-job embeddedness was significantly predictive of subsequent “voluntary turnover” and volitional absences, whereas on-the-job embeddedness was not. Also as hypothesized, on-the-job embeddedness was significantly predictive of organizational citizenship and job performance, whereas off-the-job embeddedness was not. In addition, embeddedness moderated the effects of absences, citizenship, and performance on turnover. Implications are discussed.**

For over 45 years, management scholars have theorized about and empirically investigated the causes of employees' voluntarily leaving jobs, or “voluntary employee turnover” (Maertz & Campion, 1998). In their classic book, *Organizations*, March and Simon (1958) provided much of the theoretical underpinning for the psychological research on voluntary turnover. They conceptualized employee turnover as a reflection of an employee's decision to participate in the activities of his or her organization. They also outlined how such a decision to participate differs in substantial ways from a decision to perform. As a result of this conceptualization, most research on the participation decision has treated the performance decision as a largely independent deliberation. A more thorough reading of March and Simon and of other, recent research suggests, however, a closer link between

the decisions to participate and to perform than has been traditionally thought to exist. Recent theory and research have suggested new and different ways to think about turnover, going beyond a strict focus on an employee decision to participate. Adding considerable richness have been the work of Hulin and associates, on a general withdrawal construct (e.g., Hulin, 1991); of Lee and associates, on multiple paths for leaving, described in their unfolding model (e.g., Lee & Mitchell, 1994); and of Mitchell and associates, on job embeddedness, a construct including both on- and off-the job causes of turnover (e.g., Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). Equally important, these new ideas have helped scholars better understand the conceptual and empirical links between employee withdrawal and work performance.

This study had two specific purposes. First, we sought to extend theory and research on job embeddedness by demonstrating how its major components (that is, on- and off-the-job embeddedness) differentially predicted the decision to perform (organizational citizenship and job performance) and the decision to participate (volitional absences and voluntary turnover). Second, we sought to show how these embeddedness components might be processes through which the decisions to perform

---

We thank John Cotton (Marquette University) and Greg Bigley (University of Washington) for their suggestions on a draft and Judith Aptaker (University of Washington) and Greg Anderson (University of Washington) for their help with the data.

Susan Jackson served as action editor for this manuscript.

and to participate could be conceptually and empirically linked.

### CONCEPTUAL BACKGROUND

March and Simon (1958: Chapters 3 & 4) clearly differentiated between the decisions to perform and to participate. They explained the performance decision in terms of motivational concepts such as goals, expectancies, and social control (for instance, norms, group pressure, and rewards). In contrast, they explained the participation decision in terms of perceived desirability of movement and perceived ease of movement. Over the years, desirability of movement has come to mean work attitudes like job satisfaction or organizational commitment, whereas ease of movement has come to mean perceived job alternatives or actual unemployment rates. More specifically, most turnover theory has the premise that people leave if they are unhappy with their jobs and job alternatives are available. This focus on dissatisfaction, low commitment, and prevalent job alternatives dominates the study of voluntary turnover. Although generally valid, the traditional models have had modest success in predicting turnover (e.g., Griffeth, Hom, & Gaertner, 2000), with their variables seldom explaining more than 10 percent of variance.

New ways to think about turnover may be needed. In this research, we attempted to integrate March and Simon's ideas about the links between the decisions to perform and to participate with more recent research on employee withdrawal by Hulin, Lee, and Mitchell. First, March and Simon (1958) suggested that withdrawal occurs over time and includes more types of participation decisions than just turnover. They stated, "The motivation to withdraw factor is a general one that holds for both absences and voluntary turnover" (March & Simon, 1958: 93). In other words, both absences and turnover reflect decisions about participation. Second, they suggested that many off-the-job factors are important determinants of why people stay or leave. For instance, as March and Simon wrote, "Families often have attitudes about what jobs are appropriate for their members" (1958: 72) and "The integration of individuals into the community has frequently been urged by organizations because it offers advantages for public relations and reduces voluntary mobility" (1958: 72). Thus, March and Simon theorized that severing participation entails more than dissatisfaction-induced leaving. It involves multiple actions, community, and family. Furthermore, both on- and off-the-job factors are important antecedents of employee turnover.

Hulin and associates proposed a broader concep-

tualization of withdrawal than is found in most contemporary turnover research. They advocated for and empirically demonstrated the validity of a general withdrawal construct (Hanish & Hulin, 1991). More specifically, withdrawal was theorized to include multiple work behaviors occurring sequentially over time, such as poor citizenship, decreased job performance, increased absences, and finally leaving. The withdrawing person demonstrates "a progression of withdrawal from the very mild and easy to the difficult and decisive" (Hulin, 1998: 11). These ideas suggest that the decisions to perform and participate are related, with the decision to perform *preceding* the decision to participate.

The research by Lee, Mitchell, Holtom, McDaniel, and Hill (1999) expresses related ideas in terms of the unfolding model of turnover, according to which leaving occurs over time and can follow various paths. Some turnover happens quickly (for instance, a preexisting "script" for leaving drives an employee to quit in response to some event), and some happens more slowly (for instance, accumulated job dissatisfaction leads to a search for alternatives). In addition, many people leave because of discernable precipitating events, and many of these events occur off the job (a spouse relocates, an unsolicited job offer is received). Thus, specific off-the-job events can precipitate turnover.

More recently, Mitchell, Holtom, Lee, Sablinski, and Erez (2001) focused on why people stay rather than on how they leave. In particular, they drew attention to the reasons people stay through their job embeddedness construct. Reflecting the idea of people's being "situated or connected in a social web," *embeddedness* has several key aspects: (1) the extent to which people have links to other people or activities, (2) the extent to which their jobs and communities fit other aspects in their "life spaces," and (3) the ease with which links could be broken—what they would give up if they left their present settings. Mitchell and his coauthors called these three dimensions *links*, *fit*, and *sacrifice*, respectively, and they are important both on and off the job. Thus, one can think of a three by two matrix that shows six dimensions: links, fit, and sacrifice in an organization and in a community.

Mitchell and his colleagues (2001) provided initial empirical support for job embeddedness. Drawing on data from a sample of retail employees and another sample of hospital employees, they first reported that job embeddedness was reliably measured as an aggregated score across their six dimensions. Second, aggregated job embeddedness correlated with intention to leave and predicted

subsequent voluntary turnover. Third, job embeddedness significantly predicted turnover after the effects of gender, satisfaction, commitment, job search, and perceived alternatives had been controlled. Thus, job embeddedness was related to one of the major decisions about participation, namely, turnover.

These findings, and the work of March, Simon, and Hulin, suggest three main ideas: First, job embeddedness can be disaggregated into two major components: on-the-job embeddedness (that is, organizational fit, links, and sacrifice) and off-the-job embeddedness (that is, community fit, links, and sacrifice). Second, these two components may have different effects on indicators of performance and participation (absences and turnover). Third, employee withdrawal occurs over time, with a decision about performing preceding a decision about participating.

### Hypotheses

As conceptualized, job embeddedness reflects employees' decisions to participate broadly and directly, and it moves scholarly attention beyond dissatisfaction-induced leaving. More aptly, job embeddedness is a retention (or "antiwithdrawal") construct. Hulin (1998) never directly measured a general withdrawal construct, instead inferring it from the occurrence of multiple work behaviors. If job embeddedness is indeed a broad-based retention (antiwithdrawal) construct and if it captures a sizable portion of the "decision to participate," both on- and off-the-job embeddedness should predict not only employee turnover, but also other withdrawal behaviors, such as decreasing organizational citizenship behavior, decreasing performance, and increasing absence. Further, the explained variance in these withdrawal behaviors should exceed that explained by job satisfaction and organizational commitment.

In meta-analyses, Griffith and colleagues (2000) showed that job satisfaction and organizational commitment significantly related to absences and that absences significantly predicted turnover. Because on-the-job embeddedness correlates to satisfaction, commitment, and turnover (Mitchell et al., 2001), it should predict subsequent absences as well. However, the effect of on-the-job embeddedness on absences and turnover may be reduced to zero when researchers control for satisfaction and commitment. Further, the ideas of Hulin, March, Simon, Lee, and Mitchell about nonwork factors suggest that off-the-job embeddedness predicts absences and turnover, and it may do so even when satisfaction and commitment are controlled for.

That is, leaving a job may have significant effects on an individual's off-the-job life, especially if he or she has to relocate to find new employment. More specifically, people who are embedded in their communities should want to keep their jobs. Mitchell and colleagues (2001) reported, for example, that having (1) a working spouse, (2) children in a particular school, or (3) involvement in community activities was associated with less turnover. To the extent that absences endanger employment status, they should be lower for people who are embedded on- and off-the-job.

Extending our reasoning further, off-the-job embeddedness may be more important to the prediction of turnover and absences than on-the-job embeddedness when satisfaction and commitment (which are on-the-job constructs) are controlled. First, at least some of an individual's decisions about absence and leaving an organization should be associated with thoughts and considerations about what would happen if he or she did *not* have a job (a hypothetical future or distal state). These thoughts (such as job loss owing to being absent too often [Hulin, 1991]) involve potential disruptions to the individual's community involvement, especially if relocating were required (March & Simon, 1958). In other words, these thoughts do not necessarily involve immediate on-the-job considerations but do involve off-the-job considerations.

Second, Mitchell and his colleagues (2001) reported higher bivariate correlations between on-the-job embeddedness and satisfaction, commitment, and turnover than between off-the-job embeddedness and satisfaction, commitment, and turnover. Thus, the effects of on-the-job embeddedness on participation may occur in conjunction with work attitudes like satisfaction and commitment, whereas the effects of off-the-job embeddedness on participation may be less shaped by attitudes. In other words, on-the-job embeddedness shares more variance with job attitudes than off-the-job embeddedness does; as a result, the higher correlation between on-the-job embeddedness and turnover may be mostly due to effects shared with job attitudes. The lower (but significant) correlation between off-the-job embeddedness and turnover may reflect different and new information.

When considered together, the two arguments made above—(1) people think about the future state of not having a job and its possible effects on community involvement and (2) the correlations between on- and off-the-job embeddedness and work attitudes differ—lead to the following expectation: with the attitudes of satisfaction and commitment controlled, the effects of on-the-job embeddedness on the decision to participate at work should not be

significant, but the effects of off-the-job embeddedness on turnover and absences should remain. That is, off-the-job embeddedness adds new information about why people are absent or leave.

*Hypothesis 1. After job satisfaction and organizational commitment are statistically controlled for, off-the-job embeddedness negatively relates to voluntary turnover and volitional absences, whereas on-the-job embeddedness does not predict these withdrawal behaviors.*

On the basis of the reviewed theories (Hulin, 1991; Lee & Mitchell, 1994; March & Simon, 1958; Mitchell et al., 2001), we also believe that the decision to perform should be related to job embeddedness via motivational effects. Because high on-the-job embeddedness reflects (1) many links, (2) a good fit, and/or (3) consequential things that an employee gives up by quitting, the motivation to perform should be high. That is, employees with high on-the-job embeddedness will (1) be involved in and tied to projects and people, (2) feel they fit well in their jobs and can apply their skills, and (3) sacrifice valued things if they quit. Correspondingly, the motivation to perform should be high. (Low motivation should occur when on-the-job embeddedness is low.)

The relationship between job embeddedness and the decision to perform can be further specified. In the last decade, the domain of performance has been divided into in-role and extra-role (e.g., Williams & Anderson, 1991). In-role performance is similar to job-description-based specifications of performance, whereas organizational citizenship behavior is part of a larger family of extra-role behaviors (Van Dyne, Cummings, & McLean Parks, 1995). Most often, citizenship is seen as an employee's actions that help others better perform their jobs (for instance, training co-workers) and thereby enhance organizational effectiveness.

Conceptually, the *more* an individual is job embedded (or socially enmeshed) in an organization, the *more* likely he or she should be to display citizenship behaviors. In particular, people may be interdependent (or linked to one another), and helpful acts may be consistent with their feelings of comfort (or fit) stemming from being part of that social network. The more an employee fits a job, colleagues, and organization, the more natural it should be to perform citizenship behaviors. In addition, helping others may be perceived as promoting others' future helpful acts. Foregoing the opportunity to help other interdependent people may well be seen as a sacrificed opportunity to gain an owed favor. Indeed, the theory and research on

social exchange (Van Dyne & Ang, 1998), norms of reciprocity (Gouldner, 1960), perceived organizational support (Rhoades & Eisenberger, 2002), and work status congruence (Holtom, Lee, & Tidd, 2002) suggest that people come to feel obligated and want to help persons and organizations that have helped them.

Much of the above reasoning explicitly involves the effect of on-the-job embeddedness on (in-role) job performance and (extra-role) organizational citizenship. Most importantly, the attributes of a job and an organization should be significantly more salient for the immediate motivation (and decision) to perform than are off-the-job factors. On-the-job embeddedness should be more proximal to a decision to perform (as manifested by citizenship behaviors and job performance) than the more distal decision to participate (as reflected by turnover and absences, which involve future states and off-the-job considerations). That is, employees have to perform immediately (or right now), whereas they may be absent next week or quit next month. Although off-the-job embeddedness should have an effect on performance, it should be relatively minor. In particular, the saliency of the immediate job and organization supersedes, renders less meaningful, or makes less potent the more distal effects of off-the-job embeddedness on the decision to perform.

*Hypothesis 2. After job satisfaction and organizational commitment are controlled for, on-the-job embeddedness positively relates to organizational citizenship and job performance, whereas off-the-job embeddedness is unrelated to these performance indicators.*

In their original meta-analysis, Hom and Griffeth (1995) reported an estimated rho of .33 between volitional absences and voluntary turnover, and an estimated rho of  $-.19$  between job performance and employee turnover. In their update, Griffeth et al. (2000) reported a rho of .20 between absences and turnover and a rho as  $-.15$  between performance and turnover. From these summary findings, an enduring conclusion is that increased absence signals more turnover and that good performance signals less turnover. We propose that on-the-job embeddedness moderates the effect of absences on turnover and the effect of job performance on turnover. As suggested above, higher on-the-job embeddedness reflects more links, better fit, and more consequential losses if an employee quits. As such, people with higher on-the-job embeddedness should to some extent believe and be concerned that more volitional absences and lower job performance may endanger the status of being employed and/or attached to their jobs. Conversely, people

with lower on-the-job embeddedness should hold this belief and concern to a lesser extent.

*Hypothesis 3a. On-the-job embeddedness moderates the positive effect of volitional absences on voluntary turnover in such a way that these effects are stronger for higher than for lower on-the-job embeddedness.*

*Hypothesis 3b. On-the-job embeddedness moderates the negative effect of job performance on voluntary turnover in such a way that these effects are stronger for higher than for lower on-the-job embeddedness.*

Less theoretical and empirical evidence exists on the relationships among organizational citizenship and participation (absences and turnover) than exists for in-role performance. For example, a review by Podsakoff, MacKenzie, Pain, and Bachrach (2000) did not report empirical evidence on these relationships. To our knowledge, only Chen, Hui, and Segó (1998) have reported that supervisor-rated organizational citizenship behaviors (OCBs) predict subordinates' subsequent turnover. To the extent that OCBs constitute a form of performance, however, our prior arguments in Hypotheses 3a and 3b should hold for a moderating role of job embeddedness on the effects of OCBs on turnover and absences as well.

*Hypothesis 4a. On-the-job and off-the-job embeddedness moderate the negative effects of organizational citizenship behavior on voluntary employee turnover in such a way that these effects are stronger for higher than for lower on-the-job embeddedness.*

*Hypothesis 4b. On-the-job and off-the-job embeddedness moderate the negative effect of organizational citizenship on volitional absences in such a way that these effects are stronger for higher than for lower on-the-job embeddedness.*

## METHODS

In early 1998, we contacted, visited, and gained access to data at a regional operations center of a large international financial institution. The local labor market for this operations center was exceptionally tight, with unemployment below 3 percent. In September 1998, the two senior authors conducted a focus group with ten randomly selected employees, who discussed how this study's major variables might embed them in their jobs and community. From this focus group's information, our surveys were tailored to this particular research

site. In December 1998, an employee survey was conducted. Individuals' names, employee numbers, personal characteristics, job satisfaction, organizational commitment, and on- and off-the-job embeddedness were assessed with voluntary self-reported measures. In January 1999, unit supervisors rated their subordinates' organizational citizenship behavior and job performance. Absences and turnover for calendar year 1999 were collected from company records.

Surveys were distributed to 1,650 employees in five separate organizational units. Of the 1,650 surveys, 839 surveys (51%) were returned. Ten surveys were not included in the analyses because they: (1) lacked a signed consent form, (2) were illegible, (3) had no identifying information, or (4) were identifiable but blank. Thus, our sample's data come from 829 employees and represent a 50 percent response rate. Next, the immediate supervisors (the unit managers) of these 829 subordinates rated their subordinates' in-role performance and extra-role behavior. Of the 829 surveys, matching unit manager surveys were returned for 636 individuals (76.7%). Within our sample, 75.3 percent were women; the overall average age was 34.2 years (s.d. = 9.9), and the average tenure with the organization was 6.6 years (s.d. = 5.1). The majority of respondents had "some college" (48.3%) or a B.A. or B.S. degree (25.1%). Statistical comparisons between the sample and overall population (all employees within the operations center) yielded no significant differences in age, gender, and tenure. In addition, no significant differences were found on turnover, job performance, and organizational citizenship across our five organizational units. Significant differences were found in absences in one of our units; the other four units did not differ in absences. Moreover, the ratings of the 20 supervisors who rated only a single subordinate were compared to a random sample of another 20 supervisors who rated multiple subordinates. No significant differences were found between supervisors' ratings for one versus more subordinates on citizenship or job performance. These comparisons suggest that sampling bias, although not completely discounted, was not a major problem.

## Measures

**Voluntary turnover.** Each month of the year following administration of our survey, the host organization provided a list of individuals who had voluntarily or involuntarily left the organization. One hundred thirty-six individuals were classified as voluntary leavers (16.4%), and 12 others were involuntarily terminated. To verify these lists, we

tried to contact each person who was classified as a voluntary leaver. Seventy-two of the 136 voluntary leavers were telephoned during the month following their quitting and confirmed their voluntary leaving; the other 64 individuals could not be reached. In the analysis, stayers were coded as 0 and leavers as 1.

**Volitional absences.** The host organization provided absenteeism records for the year following administration of the survey. The organization classified absences as paid (excused) or unpaid (unexcused). Because we were concerned with volitional absences, our analysis focused on unpaid absences. The total number of monthly unpaid *hours* absent per employee was observed for the 12 months following the administration of the survey. We were able to obtain absentee data for 761 employees. Because some employees left the organization prior to the end of the 12-month observation period, an average monthly absenteeism figure was calculated for all persons. Our unpaid absence data also exhibited a positive skew and a kurtosis and lacked normality. In order to achieve better fitting and more normal distributional properties, a square root transformation was applied.

**Organizational citizenship behavior.** The immediate supervisor of each survey respondent rated the latter's citizenship behavior on eight items that were adapted from the Van Dyne and LePine (1998) organizational citizenship scale. Response options were 1 ("never") to 5 ("always"), and a sample item is "volunteers to do things that are not required." A total of 632 (76.2%) employees were rated. A factor analysis indicated unidimensionality, and an averaged composite was used in the analysis ( $\alpha = .93$ ).

**Job performance.** The participants' unit managers assessed their job performance with the six-item scale developed by Williams and Anderson (1991). Its response options were 1 ("never") to 5 ("always"), and a sample item is "performs all tasks that are expected of him or her." Job performance ratings were completed for 632 of the employees (76.2%). A factor analysis indicated unidimensionality, and an averaged composite was used in the analysis ( $\alpha = .92$ ).

**Job embeddedness.** Although most items corresponded directly to Mitchell and associates' measure of job embeddedness, a few minor edits were required to fit the measure to the current sample's setting. These changes incorporated unique "enmeshing" opportunities available to the employees within the host organization and its local community. In addition, additional items emerged from the focus group and meetings with representative employees, managers, and upper management. The Appendix shows all our embeddedness items. As

did Mitchell and colleagues (2001), we averaged items for *on-* and *off-the-job embeddedness* over their three subdimensions into composite scores ( $\alpha$ 's = .84 and .82, respectively).

**Organizational commitment** was assessed with eight items from Meyer and Allen's (1997) measure of affective commitment. A sample item is "I enjoy discussing my organization with people outside of it." **Job satisfaction** was measured with three items. A sample item is "All in all, I am satisfied with my job." Five-point Likert scales were used, and factor analyses indicated unidimensionality. Averaged composites were used in the analysis (respective  $\alpha$ 's = .85 and .86).

An exploratory factor analysis with varimax rotation was conducted on all self-reported items for job embeddedness, organizational commitment, and job satisfaction. Visual inspection of the scree plot suggested a three-factor solution. Items for job satisfaction, organizational commitment, and the fit and sacrifice dimensions of on-the-job embeddedness "loaded" on factor 1 (however, one sacrifice item did not load at all). All items for the fit and sacrifice dimensions of off-the-job embeddedness loaded on factor 2. The links items for on- and off-the-job embeddedness loaded on factor 3, except for two that did not load at all. Given their conceptual overlap, the loading of all items for satisfaction, commitment, and on-the-job embeddedness, fit and sacrifice, onto a single factor was to be expected and suggested some evidence for convergent validity. The separate factors for off-the-job embeddedness, fit and sacrifice, and for links suggest some evidence of discriminant validity. (The factor pattern matrix is available upon request to the senior author.)

**Analyses.** Logistic regression equations were calculated for Hypotheses 1, 3a, 3b, and 4a, and ordinary least squares (OLS) regressions were calculated for Hypotheses 2 and 4b. We examined the main underlying assumptions of all the statistical tests of hypotheses and found no major violations (such as outliers, major deviations from normality, or multicollinearity). In particular, the variance inflation factors for the regressions that contained only "main effects" were all below 3. As expected, however, multicollinearity did emerge when interaction terms were entered into the regression analyses.

## RESULTS

Table 1 shows the means, standard deviations, and correlations for all variables in this study. Off- and on-the-job embeddedness significantly related to turnover, citizenship, performance, satisfaction,

**TABLE 1**  
Means, Standard Deviations, and Correlations<sup>a, b</sup>

Variable	Mean	s.d.	1	2	3	4	5	6	7
1. Voluntary turnover	0.16	0.37							
2. Performance (in-role)	4.08	0.65	-.12**						
3. OCB (extra-role)	3.07	0.88	-.08*	.62***					
4. Volitional absences	3.49	7.43	.22***	-.17***	-.17***				
5. On-the-job embeddedness	2.67	0.49	-.11**	.11**	.19***	.01			
6. Off-the-job embeddedness	2.88	0.54	-.13***	.10**	.11**	-.16***	.33***		
7. Job satisfaction	3.60	0.84	-.10**	-.02	.07	.03	.73***	.23***	
8. Organizational commitment	2.91	0.71	-.09**	.02	.06	.07	.71***	.22***	.69***

<sup>a</sup>  $n = 805$  for column 1 (turnover);  $n \geq 809$  for all other variables ( $n \geq 623$  for performance and OCB).

<sup>b</sup> Column 1 reports point-biserial correlations; all other columns report product-moment correlations (two-tailed tests of significance). The correlations for volitional absences are based on square-root transformations.

\*  $p \leq .05$

\*\*  $p \leq .01$

\*\*\*  $p \leq .001$

and commitment. Whereas off-the-job embeddedness did, on-the-job embeddedness did not relate significantly to volitional absences.

**Tests of Hypotheses**

Hypothesis 1 holds that, when satisfaction and commitment are statistically controlled, off-the-job embeddedness remains negatively related with turnover and absences, whereas on-the-job embeddedness is unrelated. Equation 1 in Table 2, which

reports the results of analyses of the hypothesized direct effects, shows the regression of turnover onto satisfaction, commitment, and on- and off-the-job embeddedness. As hypothesized, the coefficient for off-the-job embeddedness is significant and shows a negative effect, whereas the coefficient for on-the-job embeddedness is nonsignificant. Equation 2 shows the regression of absences onto satisfaction, commitment, and off- and on-the-job embeddedness. The coefficient for off-the-job embeddedness is significant and negative, whereas the coefficient

**TABLE 2**  
Effects of Job Embeddedness

Predictors	Dependent Variables			
	Equation 1: Voluntary Turnover <sup>a</sup>	Equation 2: Voluntary Absences <sup>b</sup>	Equation 3: Job Performance <sup>b</sup>	Equation 4: Organizational Citizenship Behavior <sup>b</sup>
Job satisfaction	.91	.01	-.19**	-.10
Organizational commitment	.92	.11*	-.06	-.11
On-the-job embeddedness	.80	-.02	.27***	.32***
Off-the-job embeddedness	.60**	-.18***	.07	.05
<i>F</i> or $-2 \log$ -likelihood	706.78	6.78***	6.24***	8.52***
$R^2$		.04	.04	.05
$\Delta R^2$ or $\Delta \chi^2$				
On-the-job embeddedness			.02***	.04***
Off-the-job embeddedness	7.75**	.03***		
<i>n</i>	805	739	620	620

<sup>a</sup> Logistic regression. The entries are exponentiated *b*'s. Entries above 1.00 indicate positive effects, and entries below 1.00 indicate negative effects.

<sup>b</sup> The entries are standardized regression coefficients when all variables are entered into the equation.

\*  $p \leq .05$

\*\*  $p \leq .01$

\*\*\*  $p \leq .001$

Two-tailed tests.



for on-the-job embeddedness is nonsignificant. Thus, Hypothesis 1 is supported.

Hypothesis 2 holds that, when satisfaction and commitment are controlled, on-the-job embeddedness remains positively related with citizenship and performance, whereas off-the-job embeddedness is unrelated. Equation 3 in Table 2 shows the regression of performance onto satisfaction, commitment, and off- and on-the-job embeddedness. As hypothesized, only the coefficient for on-the-job embeddedness is significant and positive, whereas the coefficient for off-the-job embeddedness is not significant. Equation 4 shows the regression of citizenship onto satisfaction, commitment, and off- and on-the-job embeddedness. The coefficient for on-the-job embeddedness is significant and positive, whereas the coefficient for off-the-job embeddedness is not significant. Thus, Hypothesis 2 is supported.

Hypothesis 3a predicts that on-the-job embeddedness moderates the positive effect of volitional absences on quitting, and Hypothesis 3b predicts that on-the-job embeddedness moderates the negative effect of job performance on quitting. In each case the moderation is such that the effects are stronger for higher than for lower on-the-job embeddedness. Equation 1 in Table 3, which reports the results of analyses of the hypothesized moderation effects, shows the regression of turnover onto satisfaction, commitment, on- and off-the-job embeddedness, absences, and the interactions between on-the-job embeddedness and absences and between off-the-job embeddedness and absences. As hypothesized, the coefficient for the interaction between on-the-job embeddedness and absences is statistically significant and shows a positive effect, whereas the interaction between off-the-job embeddedness and absences is nonsignificant. To describe this interaction, we calculated separate regressions for high and low groups based on a median split of on-the-job embeddedness. The high group has a steeper positive slope than the low group for absences regressed on turnover (exp  $b = 1.63$ ,  $p < .001$ , vs.  $1.27$ ,  $p < .01$ ). Equation 2 in Table 3 shows the regression of turnover onto satisfaction, commitment, on- and off-the-job embeddedness, performance, and the interactions between on-the-job embeddedness and performance and between off-the-job embeddedness and performance. The coefficient for the interaction between on-the-job embeddedness and performance is significant and shows a negative effect, whereas the coefficient for the interaction between off-the-job embeddedness and performance is nonsignificant. To describe the significant interaction, we calculated separate regression equations for high and

**TABLE 3**  
Moderating Effects of Job Embeddedness and Work Behaviors on Voluntary Turnover<sup>a</sup>

Predictors	Equation 1	Equation 2	Equation 3
Job satisfaction	0.89	0.76	0.76
Organizational commitment	0.83	0.85	0.89
On-the-job embeddedness	0.49	14.27	7.26*
Off-the-job embeddedness	0.68	0.09	0.09**
Voluntary absences	0.60		
Job performance		0.89	
Organizational citizenship behavior			0.78
On-the-job embeddedness × voluntary absences	1.37*		
Off-the-job embeddedness × voluntary absences	1.01		
On-the-job embeddedness × job performance		0.50*	
Off-the-job embeddedness × job performance		1.65	
On-the-job embeddedness × organizational citizenship behavior			0.49**
Off-the-job embeddedness × organizational citizenship behavior			1.92**
-2 log-likelihood	622.92	505.40	504.80
$\Delta\chi^2$ <sup>b</sup>	6.05*	4.82 <sup>†</sup>	11.15***
<i>n</i>	740	621	621

<sup>a</sup> Logistic regressions. The entries are exponentiated  $b$ 's. Entries above 1.00 indicate positive effects, and entries below 1.00 indicate negative effects.

<sup>b</sup> For interactions.

<sup>†</sup>  $p < .10$

\*  $p \leq .05$

\*\*  $p \leq .01$

\*\*\*  $p \leq .001$

Two-tailed tests.

low groups based on a median split of on-the-job embeddedness. The high group has a negative and significant slope (exp  $b = 0.41$ ,  $p < .001$ ), whereas the low group has a negative but nonsignificant slope for performance regressed on turnover. Thus, Hypotheses 3a and 3b are supported.

Hypothesis 4a predicts that on- and off-the-job embeddedness moderate the negative effect of organizational citizenship on quitting (turnover), and Hypothesis 4b makes a similar prediction for volitional absences. In both cases, the moderation is such that these effects are stronger for higher than for lower on-the-job embeddedness. In Table 3, equation 3 shows the regression of turnover onto satisfaction, commitment, on- and off-the-job embeddedness, citizenship, and the interactions be-

tween on-the-job embeddedness and citizenship and between off-the-job embeddedness and citizenship. As hypothesized, the coefficients for the interactions between on-the-job embeddedness and citizenship and between off-the-job embeddedness and citizenship are statistically significant. To describe these interactions, we calculated separate regressions for high and low groups based on a median split of both on- and off-the-job embeddedness. For the high on-the-job embeddedness group, the slope for citizenship regressed on turnover is negative and significant ( $\exp b = 0.55, p < .01$ ), whereas the slope for the low group is nonsignificant. For the high off-the-job embeddedness group, the slope for citizenship regressed on turnover is nonsignificant, whereas the slope for the low group is negative and significant ( $\exp b = 0.65, p < .05$ ). Thus, Hypothesis 4a is supported.

For Hypothesis 4b, absences were regressed onto satisfaction, commitment, on- and off-the-job embeddedness, and the interactions between on-the-job embeddedness and citizenship and between off-the-job embeddedness and citizenship. (This regression is not shown but is available upon request to the senior author.) Only the interaction for on-the-job embeddedness and citizenship is statistically significant ( $\beta = -0.56, p < .05$ ). To describe this interaction, we calculated separate regression equations for high and low groups based on a median split of on-the-job embeddedness. The high group showed a negative and significant slope that was steeper than the low group's ( $\beta = -0.19, p = .001$ , vs.  $-0.12, p < .05$ ). Thus, Hypothesis 4b is only partially supported.

### Post Hoc Analyses

Table 2 shows different patterns of significant contribution toward prediction of turnover, absences, performance, and citizenship for on- and off-the-job embeddedness. Post hoc, we tested the stronger inferences that off-the-job embeddedness is a better predictor than on-the-job embeddedness for turnover and absences and that on-the-job embeddedness is a better predictor than off-the-job embeddedness for performance and citizenship. First, by adding scores for on- and off-the-job embeddedness we created an overall job embeddedness score. Second, we regressed each dependent variable onto the predictors of satisfaction, commitment, and overall embeddedness. Third, we compared the difference in variance explained ( $R^2$ ) in the three OLS regressions shown in Table 2 (that is, predicting absences, performance, and citizenship with satisfaction, commitment, on-the-job embed-

dedness, and off-the-job embeddedness) with the variance explained in the corresponding regressions containing satisfaction, commitment, and overall embeddedness. For the corresponding logistic regression analyses, we compared deviances from these two equations with a  $G$ -test (Hosmer & Lemeshow, 2000). To reiterate, the new regressions (both the OLS and logistic versions), with their coefficients for overall embeddedness, allowed for stronger inferences on the strength of predictions. For absences, the four-variable model explained 4 percent of variance ( $R^2 = .04$ ), whereas the three-variable model explained 3 percent ( $R^2 = .03$ ; both  $p < .001$ ). The difference between the two  $R^2$ 's was significant ( $F = 3.20, p < .05$ , with a one-tailed test, but  $p < .10$ , with a two-tailed test). For performance, the four- and three-variable models had the same respective explained variances as the models for absences (both  $p < .001$ ). The difference in  $R^2$ 's was significant ( $F = 6.01, p < .05$  with one- and two-tailed tests). For citizenship, the four-variable model explained 5 percent of variance, and the three-variable model, 4 percent (both  $p < .001$ ). The difference in  $R^2$ 's was significant ( $F = 11.51, p < .001$ , with one- and two-tailed tests). For turnover, the four-variable model had  $-2$  log-likelihood of 706.78, whereas the three-variable model had a  $-2$  log-likelihood of 707.31. The difference between them ( $G$ ) was nonsignificant. In sum, these data generally support the stronger inferences.

## DISCUSSION

This study expands understanding of job embeddedness. First, off-the-job embeddedness predicted turnover and absences, whereas on-the-job embeddedness did not (Hypothesis 1). In contrast, on-the-job embeddedness predicted organizational citizenship and job performance, whereas off-the-job embeddedness did not (Hypothesis 2). Second, the two components of job embeddedness may be processes through which the decisions to perform and to participate can be conceptually and empirically linked. On-the-job embeddedness moderated the positive effect of volitional absences on turnover (Hypothesis 3a), the negative effect of job performance on turnover (Hypothesis 3b), and the negative effect of citizenship on absences; the moderation was such that these effects were stronger for higher than for lower on-the-job embeddedness (Hypothesis 4a).

Three particular limitations of this study should be noted. First, the timing for some of our measures provides only limited support for causal inferences. Although our four behavioral outcome variables were measured independently from and after

our respondents' self-reports of satisfaction, commitment, and embeddedness, organizational citizenship and job performance were assessed only a month after the self-reported survey. Although it is likely that job embeddedness was a cause of our outcome variables, the reverse direction may hold. Second, the measures of on- and off-the-job embeddedness are still preliminary and evolving. Although our data on factor structures and internal consistencies produce empirical findings similar to earlier work, these measures are not yet established and standard research instruments. Third, we disaggregated embeddedness into on- and off-the-job components. In the future, profiles of the six embeddedness dimensions may be useful for prediction and understanding.

It should be mentioned that Meyer and Allen's (1997) dimension of continuance commitment and the embeddedness subdimension of organization-related sacrifice (sacrifice—organization) are similar. Both dimensions share notions of "sunk cost" and reluctance to give things up by leaving. However, the original continuance commitment construct combined reluctance with the availability of alternatives, which organization-related sacrifice does not. Even if items for alternatives are omitted from the continuous commitment measure, items for organization-related sacrifice have much more specific and targeted referents such as perks, respect, compensation, benefits (retirement and health care), and promotional opportunities. Thus, our measure omits the "alternatives" idea and offers more detail in terms of the specific topics than continuance commitment. (See Yao, Lee, Mitchell, Burton, and Sablinski [2004] for a comprehensive comparison between job embeddedness and related constructs, including continuance commitment.)

Overall, our results indicate the appropriateness of studying retention and performance as tandem job behaviors and viewing job embeddedness as a meaningful mechanism through which to understand this linkage. In particular, Mitchell and coauthors (2001) reported significant predictive associations between aggregated job embeddedness and turnover in two samples. In this study, disaggregated job embeddedness predicted turnover, absences, in-role performance, and organizational citizenship. Thus, meaningful statistical effects were found over three diverse and sizable samples. In the future, it may be timely for researchers to move beyond simple prediction and predictive validity designs. Given the existing studies, research designs that allow for stronger causal inferences are now needed. Field or quasi field experiments that include interventions aimed at altering job embeddedness are suggested. Alternatively, field studies

that measure job embeddedness immediately before and after acts of organizational citizenship and formal appraisals of in-role performance, absence spells, or individual quitting might yield valuable evidence on causal effects.

In our view, the managerial implications of this study are clear. Job embeddedness (which can be established through building community, developing a sense of belonging, establishing deep ties among employees, and deepening social capital) may increase retention, attendance, citizenship, and job performance. Furthermore, organizations can be proactive about job embeddedness: links can be increased through teams and long-term projects; sacrifice can be increased by connecting job and organizational rewards to longevity; and fit can be increased by matching employees' knowledge, skills, abilities, and attitudes with a job's requirements. Equally important, managers can increase off-the-job embeddedness by providing people with information about the community surrounding their workplace and by providing social support for local activities and events (Mitchell, Holtom, & Lee, 2001).

In closing, our results suggest that studying employees' reasons for both staying and leaving may enrich knowledge of retention, increasing it beyond what the current focus on leaving permits. This broader perspective suggests an interesting and potentially fruitful direction for future research.

## REFERENCES

- Chen, X. P., Hui, C., & Sego, D. J. 1998. The role of organizational citizenship behavior in turnover: Conceptualization and preliminary test of key hypotheses. *Journal of Applied Psychology*, 83: 922–931.
- Gouldner, A. W. 1960. The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25: 161–178.
- 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 millennium. *Journal of Management*, 26: 463–488.
- Hanish, K. A., & Hulin, C. L. 1991. General attitudes and organizational withdrawal: an evaluation of a causal model. *Journal of Vocational Behavior*, 39: 110–128.
- Holtom, B. C., Lee, T. W., & Tidd, S. T. 2002. The relationship between work status congruence and work-related attitudes and behaviors. *Journal of Applied Psychology*, 87: 903–915.
- Hom, P. W., & Griffeth, R. W. 1995. *Employee turnover*. Cincinnati: South-Western.

- Hosmer, D. W., & Lemeshow, S. 2000. *Applied logistic regression* (2nd ed.). New York: Wiley.
- Hulin, C. L. 1998. *Behaviors, constructs and time: Pot-holes on the road well traveled*. Invited address, annual meeting of the Society for Industrial and Organizational Psychology, Dallas.
- Hulin, C. L. 1991. Adaptation, persistence and commitment in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed.): 445–507. Palo Alto, CA: Consulting Psychologists Press.
- Hulin, C. L. 2002. Lessons from industrial and organizational psychology. In J. Brett & F. Drasgow (Eds.), *The psychology of work: Theoretically based empirical evidence*. Mahwah, NJ: Erlbaum.
- Lee, T. W., & Mitchell, T. R. 1994. An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19: 51–89.
- Lee, T. W., Mitchell, T. R., Holtom, B. C., McDaniel, L., & Hill, J. W. 1999. Theoretical development and extension of the unfolding model of voluntary turnover. *Academy of Management Journal*, 42: 450–462.
- Maertz, C. P., & Campion, M. A. 1998. 25 years of voluntary turnover research: A review and critique. *International Review of Industrial and Organizational Psychology*, 13: 49–81.
- March, J. G., & Simon, H. A. 1958. *Organizations*. New York: Wiley.
- Meyer, J. P., & Allen, N. J. 1997. *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Mitchell, T. R., Holtom, B. C., & Lee, T. W. 2001. How to keep your best employees: The development of an effective attachment policy. *Academy of Management Executive*, 15(4): 96–108.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. 2001. Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44: 1102–1121.
- Podsakoff, P. M., MacKenzie, S. B., Pain, J. B., & Bachrach, D. G. 2000. Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26: 513–564.
- Rhoades, L., & Eisenberger, R. 2002. Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87: 698–714.
- Van Dyne, L., & Ang, S. 1998. Organizational citizenship behavior of contingent workers in Singapore. *Academy of Management Journal*, 41: 692–703.
- Van Dyne, L., & LePine, J. A. 1998. Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41: 108–119.
- Van Dyne, L., Cummings, L. L., & McLean Parks, J. 1995. Extra-role behaviors: In pursuit of construct and definitional clarity (a bridge over muddied waters). In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 17: 215–285. Greenwich, CT: JAI Press.
- Williams, L. J., & Anderson, S. E. 1991. Job satisfaction and organizational commitment as predictors of citizenship and in-role behaviors. *Journal of Management*, 17: 601–617.
- Yao, X., Lee, T. W., Mitchell, T. R., Burton, J. P., & Sablynski, C. S. 2004. Job embeddedness: Current research and future directions. In R. Griffeth & P. Hom (Eds.), *Understanding employee retention and turnover*: 153–187. Greenwich, CT: Information Age.

## APPENDIX

### Job Embeddedness Items<sup>a</sup>

#### Fit, community

- I really love the place where I live.<sup>b</sup>  
 I like the family-oriented environment of my community.  
 This community I live in is a good match for me.  
 I think of the community where I live as home.<sup>b</sup>  
 The area where I live offers the leisure activities that I like (e.g., sports, outdoors, cultural, arts).

#### Fit, organization

- My job utilizes my skills and talents well.<sup>b</sup>  
 I feel like I am a good match for this organization.<sup>b</sup>  
 I feel personally valued by (name of the organization).  
 I like my work schedule (e.g., flextime, shift).  
 I fit with this organization's culture.<sup>b</sup>  
 I like the authority and responsibility I have at this company.<sup>b</sup>

#### Links, community

- Are you currently married?<sup>b</sup>  
 If you are married, does your spouse work outside the home?<sup>b</sup>  
 Do you own the home you live in? (mortgaged or outright)  
 My family roots are in the community where I live.

#### Links, organization

- How long have you been in your present position? (years)<sup>b</sup>  
 How long have you worked for this organization? (years).<sup>b</sup>  
 How long have you worked in the (banking) industry? (years).<sup>b</sup>  
 How many coworkers do you interact with regularly?<sup>b</sup>  
 How many coworkers are highly dependent on you?<sup>b</sup>  
 How many work teams are you on?<sup>b</sup>  
 How many work committees are you on?<sup>b</sup>

Continued

APPENDIX *Continued***Sacrifice, community**

Leaving this community would be very hard.<sup>b</sup>  
 People respect me a lot in my community.<sup>b</sup>  
 My neighborhood is safe.<sup>b</sup>

**Sacrifice, organization**

I have a lot of freedom on this job to decide how to pursue my goals.<sup>b</sup>  
 The perks on this job are outstanding.<sup>b</sup>  
 I feel that people at work respect me a great deal.<sup>b</sup>  
 I would incur very few costs if I left this organization.<sup>c</sup>  
 I would sacrifice a lot if I left this job.<sup>b</sup>  
 My promotional opportunities are excellent here.<sup>b</sup>  
 I am well compensated for my level of performance.<sup>b</sup>  
 The benefits are good on this job.<sup>b</sup>  
 I believe the prospects for continuing employment with this company are excellent.<sup>b</sup>

<sup>a</sup> Items 1–3 for links, community, and links, organization, were standardized before being analyzed or included in any composites.

<sup>b</sup> Item used by Mitchell, Holtom, Lee, Sablynski, and Erez (2001).

<sup>c</sup> Reverse coded.

**Thomas W. Lee** (*orcas@u.washington.edu*) is a professor of human resource management and organizational behavior and the Evert McCabe Faculty Fellow at the University of Washington Business School. He earned his Ph.D. in organizational studies at the University of Oregon. His current research interests include employee retention, staffing, work motivation, and research methods.

**Terence R. Mitchell** (*trm@u.washington.edu*) is the Edward E. Carlson Professor of Business Administration and a professor of psychology at the University of Washington Business School. He earned his Ph.D. in social psychology at the University of Illinois. His current research interests include employee retention, work motivation, and decision making.

**Chris J. Sablynski** (*sablynsk@csus.edu*) is an assistant professor of organizational behavior and environment at California State University, Sacramento. He earned his Ph.D. in organizational behavior and human resource management at the University of Washington Business School. His current research interests include employee retention and workplace deviance.

**James P. Burton** (*jburton@uwb.edu*) is an assistant professor of management at the University of Washington, Bothell. He earned his Ph.D. in organizational behavior and human resource management at the University of Washington Business School. His current research interests include workplace fairness, employee retention, and teaching effectiveness in university settings.

**Brooks C. Holtom** (*bch6@msb.edu*) is an assistant professor of management in the McDonough School of Business at Georgetown University. He earned his Ph.D. in organizational behavior and human resource management at the University of Washington Business School. His current research interests include human and social capital development and employee retention.



Copyright of Academy of Management Journal is the property of Academy of Management and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.