BURNED! THE IMPACT OF WORK ASPECTS, INJURY, AND JOB SATISFACTION ON UNIONIZED COOKS’ INTENTIONS TO LEAVE THE COOKING OCCUPATION

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The hospitality industry is marked by chronic labor shortages and high turnover in the cooking occupation, yet research on occupational (as opposed to job or organizational) turnover antecedents in this context is scarce. This study explores the variables that drive cooks’ intent to leave their chosen occupation, focusing on administratively controllable elements of the work environment. A survey of 213 unionized cooks employed in 13 hotels, ranging from three to five stars, in a major U.S. city illuminated path relationships between the antecedents of (a) work demands, (b) kitchen conditions, (c) management’s concern for food quality, and (d) work engagement, and the outcomes of (a) injuries, (b) job satisfaction, and (c) occupational turnover intent. Results show that the population of cooks may warrant contextually-specific models of occupational turnover intent.

KEYWORDS: occupational turnover; culinary workers; work-related injuries; job characteristics

To put it into physical perspective, imagine yourself in a two-foot by three-foot space that reaches a temperature of up to 140F. You can’t leave that zone for up to four hours. You are responsible for producing 200 to 500 entrees in the next 360-minute period. You are expected to maintain a production rate of about a meal a minute. And you do this five to six nights a week.

Cooper (1998)

The hospitality industry has a long history of problems with retention (Hinkin & Tracey, 2000; Pizam & Thornburg, 2000), and these problems are felt most deeply in cooking occupations (National Restaurant Association, 2004). Currently employing 3 million culinary workers, the restaurant industry will need 1.5 million more by 2014 (National Restaurant Association, 2004), primarily from the need to replace workers who leave the occupation entirely (Bureau of Labor Statistics, U.S. Department of Labor, 2004).
Occupational turnover, where one leaves a particular profession/occupation (as opposed to job or organizational turnover where one leaves a particular job or organization), may be due to the sizeable toll cooking exacts on employees physically, mentally, and emotionally (Fine, 1990), or to the image of cooking occupations as easy jobs to get and to leave (Dornenburg & Page, 2003). Some foodservice companies admit to having exacerbated the chronic migration of workers to other industries, cited in numerous industry and trade publications (e.g. Hayes, 1998; Mount, 1995), in one case noting that “cooks’ intent to leave the industry was affected in large part by their working experiences in hospitality organizations . . . all too often [they] move out of the industry completely as a result of negative experiences” (Rowley & Purcell, 2001, p. 183). Whatever the cause, organizations are scrambling to retain their cooks yet do not know how cooks evaluate their work environments, or why some stay in the occupation and others go. To ensure clarity for the reader, references to cooks are made in the following paragraphs, rather than chefs, as in the United States, only those who hold the positions of Executive Chef, Sous Chef, and Pastry Chef are considered chefs. Those who work with them in the kitchen, preparing food for service, are considered cooks.

We focused on the work of cooks in hotel restaurants, as these units within hotels have changed in prestige and strategic orientation within the past decade. Traditionally, a hotel restaurant was simply an amenity to service the guest and was not expected to make a profit. Today, however, the picture has changed (Gunter, 2006). With corporate stockholders demanding that every square inch of space in a hotel generate revenue for the bottom line, hotel restaurant cooks are under increasing pressure to cut costs and work more quickly. In what used to be a job characterized by freedom and the ability to be a creative, talented artist, now the job of cooks in hotel restaurants is changing. Cooks face a situation similar to that faced by skilled craftsmen at the turn of the industrial revolution. Trained administrative level personnel have wrestled control from the cooks, and many cooks believe that local and corporate level management care more about profits than presentation and quantity over quality.

The purpose of this study was to examine the variables that drive cooks’ intent to leave their chosen occupation, focusing on elements of the work environment directly under management’s control. We attempt to illuminate path relationships between administratively controllable elements of cooks’ work environment (work demands, kitchen conditions, management’s concern for food quality, and job characteristics), and the outcomes of injuries, job satisfaction, and intent to turnover from the cooking profession.

LITERATURE REVIEW

Professional and Organizational Withdrawal
Cognitions in the Cooking Occupation

Turnover can occur on an organizational or occupational level, and the two should not be confused as they are distinct constructs (e.g., Blau, 2000; Meyer,
Allen, & Smith, 1993). To more clearly distinguish intent to turnover from an organization versus an occupation, the two have been recently termed organizational withdrawal cognitions (OWC) and professional withdrawal cognitions (PWC), respectively (e.g., Blau, Surges Tatum, & Ward-Cook, 2003).

Job dissatisfaction is associated with increased stress and physical detriment (Cooper & Payne, 1991), and employee withdrawal behaviors such as organizational turnover (Griffeth, Hom, & Gaertner, 2000), absenteeism (Mobley, Griffeth, Hand, & Meglino, 1979), and willingness to resign (Van de Looij & Benders, 1995). Numerous studies of U.S. workers show that job satisfaction is a highly salient antecedent of OWC (e.g., Griffeth & Hom, 1995), and a key mediating variable between work environment and OWC.

The literature linking job satisfaction to OWC has recently turned toward a process-based view. It remains unclear, though, if work experiences, strains such as injuries, and job satisfaction in one organization can influence workers to leave an occupation. Insights to this possible link relate to how affective variables such as mood, stress, and strain are integrated with cognitive ones (Locke, 1995). These issues include how a worker cognitively processes information about events in the workplace, proximity of the events recalled in the present, and perceived importance of events to workplace appraisals.

Overall judgments of general satisfaction and perceived strain variables (such as work-related injury) are formed by affect and cognition (e.g., stress, mood, and memory). These judgments are not always entirely rational; rather, they are “automatic, subconscious value appraisals” created by “the way positive and negative experiences are combined and interpreted” by the employee and affected by his or her dispositional traits (Locke, 1995, pp. 123-124). For example, memory may affect the way an employee evaluates organizations and occupations. In accordance with explanations of cognitive information processing (Motowidlo, 1996), a person’s memory affects how he or she recalls favorable or unfavorable workplace events. This recall affects the proportion of positive to negative input received over a period of time, which may influence an individual’s overall evaluation of the work environment—not just at one organization but throughout the occupation.

Proximal events can also blur the line between organizations and occupations. Proximal work events will weigh more heavily on a worker’s evaluation of the occupational work environment—the typical environment faced in an occupation—especially if negative events are successive. In short, if a worker experiences stress as a result of a negative event in the occupational workplace, there is a lagging effect that spills over to future evaluations. If a positive event follows, the worker’s stress decreases and his or her evaluations of the occupational workplace increases overall—what is known as a contrast effect (e.g., Teuchmann, Totterdell, & Parker, 1999). If a negative event follows, the worker’s stress becomes cumulative. If negative events continue, built-up stress increasingly skews evaluations of the workplace and possibly the occupation.

Additionally, isolated events that are of particular importance to an individual can cause perceived stress measures to fluctuate independently of any cumulative
effect. Although variations on models and constructs abound, many researchers show that a single negative event can skew organizational evaluations significantly (Fuller et al., 2003). Combined with the cumulative effects of past events, isolated events may skew occupational evaluations as well.

Given the temporal nature of turnover, the strong empirical relationship with job satisfaction and the complex process of job appraisal that disproportionally weighs proximal and objectively significant events, the possibility that one job can influence a cook’s PWC remains distinct. Thus, the cumulative effect of negative work experiences, peppered with recency error, may color a cook’s evaluation of the occupational work context.

This reasoning leads to the following hypothesis:

Hypothesis 1: Job satisfaction is negatively related to cooks’ professional turnover intent.

Work-related injury. Although conceptualizations of the links differ, numerous studies have demonstrated the relationship among job stress, perceived job strain, and job satisfaction (e.g., Fuller et al., 2003). It has also been shown that the effects of stress and strain variables build over time (Jones & Fletcher, 1996; Weiss & Cropanzano; 1996). Besides building up over time, perceptions of work-related injuries—a type of work strain—can be colored by health perceptions, worries, and anticipation of future injuries. Some researchers advocate controlling for these affective variables (Hart & Cooper, 2002), but others suggest that this removes relevant and meaningful information (e.g., Spector, Zapf, Chen, & Frese, 2000). In the latter view, it is not the actual injuries a worker incurs, but her or his perception of these injuries that may be negatively related to her or his subsequent job satisfaction.

A case can also be made for a link in the opposite direction from that described above, one linking satisfaction to work-related injuries. Satisfaction has been shown to mediate the relationship between work characteristics and self-reports of work-related injury (Barling, Kelloway, & Iverson, 2003). Thus, it is possible that the more satisfied are workers, the less likely they are to injure themselves, perhaps using more careful and proper techniques, and adhering to safety protocols.

Job alternatives are a traditional predictor of turnover processes, and an employee’s perception of these job alternatives is determined by the compatibility of his or her “fit” with present job demands (Bretz, Boudreau, & Judge, 1994; Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). In occupations such as cooking, work-related injuries may decrease a cook’s ability to meet the performance standards of his or her job. Employee–job fit may decline, decreasing job alternatives. Additionally, if job alternatives within the occupation demand the same physical abilities, injuries in a cook’s present job would also decrease fit with the occupation at large. If an employee foresees that job alternatives will decline in the future, this perceived future loss of mobility may increase his or her PWC, perhaps prompting an occupational switch to ensure long-term fit between abilities and job demands.
Based on this information, we hypothesize that:

- **Hypothesis 2a:** Cooks’ perceptions of work-related injuries are negatively related to job satisfaction.
- **Hypothesis 2b:** Job satisfaction is negatively related to perceptions of work-related injuries.
- **Hypothesis 3:** Cooks’ perceptions of work-related injuries are positively related to professional turnover intent.

**Management’s concern for food quality.** Values are generally considered to be “evaluative beliefs about the desirability of means, modes, and ends of action” (Mariani, 2000), and job values are those that pertain specifically to the work domain. Many definitions exist, as values have been researched in many areas and disciplines (e.g., Hofstede, 1980; Kluckhohn & Strodtbeck, 1961; Rokeach, 1973). In the context of work, job values refer to how desirable certain work features are, and what rewards can be gained from them.

Values change to preserve a person’s positive self-concept (Rokeach, 1973), and reinforcement theories hold that values are chosen to reinforce this self-concept (Lindsay & Knox, 1984; Mortimer, Pimentel, Ryu, Nash, & Lee, 1996). Rewards obtained on the job may be one important influence on workers’ job values. Workers tend to select jobs (and vice versa) that reward and reinforce their values (Parsons & Cable, 1999; Werbel & Gilliland, 1999). Those workers whose values do not fit tend to be selected out (because of poor fit) and select themselves out (e.g., Chatman, 1991) because valuing what one does not or cannot have could decrease self-esteem (Rokeach, 1973).

Many cooks have been socialized professionally to hold job values that preserve high food quality in the workplace, as evidenced in earlier research. Concern for food quality represents a set of values that may enhance cooks’ self-esteem, and is found more often in “professional” kitchens than in those where cooks are seen as manual labor (Fine, 1995). The professionalization of cooking occupations may enhance cooks’ self-esteem, self-identity, and pride in their work: “When one sees oneself as a professional, one’s identity is likely to be self-enhancing. Unlike the rhetoric of manual labor, which divides one’s work and personal self, professionalism merges work and self; pride in one’s achievement is crucial” (Fine, 1996, p. 100).

Cooks continually try to control production issues so they can ensure that the food they produce is satisfactory, and view management as the “proximal source of constraints” (Fine, 1992, p. 1277). Managers in professional kitchens wield organizational power, and their values and beliefs can be highly influential. Subunit power can rest on which organizational values are shared between the subunit’s employees (like line cooks) and its managers (Enz, 1988). Value incongruence between subunit employees and top management may increase employee perceptions that power is being denied or taken away. In hotel restaurants, top management is increasingly demanding that cooks adhere to tight budgets and, in effect, is seizing production control, potentially diminishing the cooks’ artistic control. If food quality is an important professional value to cooks,
a belief that management does not share that value is significant. This incongruence, in turn, could likely cause job dissatisfaction (Tepeci & Bartlett, 2002).

If a cook values food quality and believes that management—as a representative of the overall organization—does not hold this same focus, values are incongruent. This discussion leads to the next hypothesis:

**Hypothesis 4:** Management’s lack of concern for food quality is negatively related to cooks’ job satisfaction.

**Work demands.** Work demands refer to the amount of work assigned to or expected from a worker in a specified time period. It includes both the pace of work and the consistency of assigned work (Spector & Jex, 1998). When workers feel they cannot keep up with work demands, illness and injury may result (Levi, 1990).

Work demands at the micro-level can be measured objectively (e.g., relative to an established quota of \( x \) units of work per \( y \) unit of time) or as a subjective appraisal made by the individual worker. Research has shown that subjective measures better predict musculoskeletal and stress-related health complaints (Hedin, 1997). Appraised work demands have been shown to affect ill-health symptoms (Pousette & Hanse, 2002), health problems (Sparks & Cooper, 1999) and musculoskeletal symptoms (Bongers, de Winter, Kompier, & Hildebrandt, 1993) in many occupations. Pressure caused by deficient work demand planning has been associated with job satisfaction and psychosomatic and stress symptoms (Waluyo, Ekberg, & Eklund, 1996).

Occupations where workload is determined by business demands and not by the worker limit his or her ability to regulate efforts to handle the work situation (Pousette & Hanse, 2002). In industries where the work pace is dictated by the production process, workers show higher rates of illness, symptoms such as back pain, headache, and gastric ulcers, and significantly more absences due to fatigue (Johansson, Aronsson, & Lindstrom, 1978). Also, employees who perceive work overload usually put all of their efforts into meeting work demands (Jex & Thomas, 2003), leaving less time and cognitive resources for safety precautions and awareness of environmental dangers.

Cooking occupations show similar patterns. Ethnographic study reveals that “much of the structure [cooks] confront has been selected by others. Few chose the built environment and the larger blocks of tasks they confront” (Fine, 1996, p. 99). As a result, job overload (because of deliberate understaffing, temporary staff shortages, and unrealistic task criteria) has been suggested as the main form of avoidable stress for cooks, driving job dissatisfaction and willingness to leave (Rowley & Purcell, 2001).

The previous literature provides the foundation for our next hypotheses:

**Hypothesis 5:** Cooks’ perceived work demands are positively related to work-related injury.

**Hypothesis 6:** Cooks’ perceived work demands are negatively related to job satisfaction.
Kitchen conditions. Kitchen conditions are usually described in terms of common hazards such as deep fat fryers, burns, strains/sprains, fire hazards, heat hazards, slips/trips/falls, and electrical elements; and less obvious hazards, such as poorly maintained equipment and tools (Occupational Safety & Health Administration, 2004). Many kitchens have modern equipment, convenient work areas, and air-conditioning, but repair and maintenance are often ignored when profits fall. Also, older and smaller eating-places are not as well equipped. Working conditions depend on the quantity, variety, and labor-intensiveness of menu items. Managers may exacerbate the situation for cooks by demanding output beyond what can reasonably or safely be produced under given conditions (Pappert, 2003).

Under poor work conditions, safety tasks can compete with performance-related tasks directly, acting as common situational constraints in organizations that include faulty equipment (Spector & Jex, 1998); or indirectly, when attention or performance capacities are exceeded (Wickens, 1992). This cognitive effect may make perceived kitchen conditions a better indicator of safety effects than objective measures. Poor kitchen conditions can distract workers from job tasks, causing them to ignore safety standards or leading to injury. Heightened anxiety or overstimulation can also lead employees to deprioritize workplace hazards (Sanders & Baron, 1975), and can be activated by kitchen conditions.

Despite regulations to protect worker safety, kitchen conditions are often lacking in cleanliness, safety, and general repair. Work conditions are an organizational constraint that have been shown to relate to job dissatisfaction (Peters & O’Connor, 1980, 1988), intent to turnover (e.g., Carsten & Spector, 1987), and job stress–related physical symptoms (Spector & Jex, 1998). Performing cooking tasks under poor work conditions is more difficult, and may be related to higher rates of injury and lower job satisfaction.

Thus, we propose the following hypotheses:

Hypothesis 7: Perceived kitchen conditions are negatively related to cooks’ perceptions of work-related injury.
Hypothesis 8: Perceived kitchen conditions are positively related to cooks’ job satisfaction.

Work engagement. One of the major influences on organizational productivity is the quality of the relationship between people who do the work and the jobs they perform (Hackman & Oldham, 1980). This relationship has been studied through measures of job characteristics for more than six decades. Job characteristics describe how meaningful aspects of an employee’s job or task responsibilities are to an employee, as well as their effects on the employee’s esteem, growth, and future development (Wright & Davis, 2003). Positive relationships between worker perceptions of job characteristics and job satisfaction are widespread in several areas of literature, and evidenced through a wide range of quantitative methods. These areas include job satisfaction (e.g., Locke, 1976), work environment (e.g., Payne & Pugh, 1976; Schneider & Snyder, 1975), and job characteristics (e.g., Brief & Aldag, 1975; Sims & Szilagyi, 1976).
Job characteristics, both traditional and nontraditional, have been found to have a positive direct effect on job satisfaction in single studies of many occupations (e.g., Wright & Davis, 2003), meta-analysis (e.g., Fried & Ferris, 1987) and foodservice-specific research (e.g., Lee-Ross, 1999). Job characteristics have been shown to positively affect job satisfaction, but the weighting of variables has been found to be context dependent, thus links between each variable and job satisfaction are not as clear as studies imply (Hackman & Oldham, 1980). This contextual effect has been specified as occupationally dependent as well (Zhang & Snizek, 2003), and may vary based on supervisory/managerial status in one’s job (Peterson, 1991). Some characteristics may be more important to one worker or occupational group than another, making contextual study a vital means to understanding occupational turnover in cooking (e.g., Zhang & Snizek, 2003).

The question is which job characteristics are most relevant to the particular occupation of cooking. We formulated a new construct of work engagement to reflect those specific interests, values, and beliefs of cooks hypothesized to weigh most heavily on their work identity, occupational culture, and job satisfaction. Work engagement is a measure of how engaging an employee finds his or her work to be, and is concerned with how exciting, interesting, motivating, boring (reverse coded), and how important the work is in the organization. This construct is based on the same rationale used to argue that routinized work and repetitive tasks have a negative impact on employees’ job satisfaction (Eichar & Thompson, 1986; Price & Mueller, 1986).

Many occupations are characterized by workers who look forward to tasks that make use of their skills, as opposed to those that are boring and do not require trained personnel. Cooks are just such workers (Fine, 1990). They do not prefer jobs—and occupations—that (a) lack temporal oscillation; (b) contain routine, repetitive tasks; and (c) are likely to be felt as “boring.” As a result, it is likely that

Hypothesis 9: Cooks’ degree of work engagement is positively related to their job satisfaction.

METHOD

Data Collection

Management from 13 hotels located in a U.S. city and flying 11 different flags, whose ratings ranged from three to five stars, and the labor union representing those hotels’ cooks, were approached about participating in our research study. Representatives from management and from labor (union reps, shop stewards, and line cooks) contributed to designing the research, discussing and eventually agreeing on those areas of interest to both sides. It should be noted that these 13 hotels were a subset of the unionized hotels in this city. The researchers operationalized each construct, and the final survey instrument was reviewed and approved by labor and management representatives.

Unionized hotels were selected as data gathering sites in part because of the nature of these kitchen environments. Research has shown that unsocial
working hours, low pay, overly harsh discipline, and sexism have been shown as primary extrinsic factors affecting occupational turnover in the majority of cooking jobs (Lucas & Jeffries, 1991; Pratten, 2003). All these administratively controllable factors are not the focus of our study; controlling for them would be impractical and costly. The sample chosen, by its unionized status, has policies and procedures that minimize these factors and protect cooks from their effects. If our hypothesized path relationships were found to be significant in this sample, where extrinsic factors are substantially less problematic than in the cooking occupation overall, the results may be generalized to a wider context.

Second, many—in some cases the vast majority of—hotels in most of the major U.S. markets are unionized, and working to gain access to employees in a single city, all of whom were represented by a single local is substantially more feasible than attempting to gain access to properties in different markets.

Surveys, which were available in English, Spanish, and Mandarin Chinese, were distributed to the directors of human resources (HR) at each of the 13 hotels for them to distribute to all union cooks at their respective properties. We followed the recommended protocol for translation; the survey was translated and back-translated into and from both languages. Cooks were instructed to take the survey home to complete it and return it to the HR office. No identifying information was asked on the survey with the exception of cooks’ job classification (sous, station, pantry) and demographic information (occupational/organizational tenure, age, and gender). The population of cooks in these hotels totaled 383, of whom 30 were randomly selected (stratified by job classification and property) to participate in a pilot of the survey. These 30 participants were not asked to participate in the final survey. Of the remaining 353 surveys distributed, 254 were returned. A total of 213 surveys were usable, yielding an effective response rate of 60.4%. Data were collected in early 2004.

The sample of workers included line level employees in the cooking occupation, some of whom occupied quasi-managerial positions. These quasi-managers, union sous chefs, are cooks with partial responsibility, accountability, and authority over other cooks, but without the ability to hire, fire, or discipline. In addition, these workers are paid hourly wages, not salary. Of the 213 cooks, 16.2% were entry-level pantry cooks. Pantry cooks typically do prep work, including cutting fruit and vegetables, composing salads and trays, making sandwiches, and other tasks involving cold food items. An additional 60.8% were more advanced-level station cooks, who work at various “stations” throughout the kitchen, including sauté, grill, and so on. Union sous chefs represented 10% of the sample, and 13% were of various other job classifications (pastry, butcher, etc.). Nine respondents did not provide job classification information (4.2%).

Respondents ranged in age from 22 to 69 years, with a mean age of 45.13 years and standard deviation of 10.24. A total of 19 of the 213 respondents did not provide information regarding gender (8.9%), and the remaining were 74.2% male and 25.8% female. A multivariate analysis of variance revealed no demographic effects on any of the variables subsequently used in hypothesis testing.
Measures

The survey was entirely self-report. This method was judged by the researchers to be the best available for research inquiry, due to the numerous organizational constraints on objective measures. Objective measures of variables such as work-related injuries, organizational constraints, and job stressors can be less accurate and more problematic than self-report (Frese & Zapf, 1999; Fried, Rowland, & Ferris, 1984; Spector & Jex, 1998).

For example, self-report measures were judged to be more accurate indicators of work-related injuries because of the contextual bias that kitchen work entails—_injuries are not always reported, and those that are reported are not always treated by a medical professional_. In addition, employers in this occupation are under sizable pressure to minimize documentation of work-related injuries, and recent regulatory changes by the Occupational Safety & Health Administration (2001) eased employer requirements to report all work-related injuries.

Self-report measures have been criticized for possible common method variance (e.g., Brief, Burke, George, Robinson, & Webster, 1988; Williams, Cote, & Buckley, 1989), and an inability to account for all job-related complexities (Spector, 1992; Spector & Jex, 1991; Taber & Taylor, 1990). However, here they may offer a better approximation of perceptions and reactions in the workplace (Howard, 1995; Spector, 1994)—for example, perceptual measures of job characteristics have a higher correlation with job satisfaction than do objective measures (Judge, Bono, & Locke, 2000) because “individuals rely on job perceptions . . . for information in formulating job satisfaction attitudes” (James & Jones, 1980, p. 97).

Nearly all the questions were answered using 5-point scales in which “1” was the lowest and “5” was the highest (in terms of agreement, quantity, or frequency). Questions for which the response categories and/or scaling were different from the rest were presented and explained separately, once again for ease of understanding. Several sets of questions were designed such that the responses could be aggregated to create a single value for each cook. These aggregated scores represent the cooks’ total scores in a given area, such as “Work-Related Injuries,” and enabled us to perform more sophisticated analyses examining the relationships among the variables.

A single-item measure was used for intent to occupationally turnover, as one-item measures have been successfully applied to similar studies (e.g., Spector & Jex, 1998). Alternative research measures were considered, but longer measures were expected by all parties involved to reduce participation through respondent fatigue.

Other measures were specifically designed for this study for several reasons. Already existing measures did not exist for the constructs under consideration given the context; even if modified to take the context into consideration, many of these measures were too long and too complex given our research sample of cooks, for many of whom English was a second language and/or their formal education was limited. Finally, time was of great consideration. A survey that took
longer than 15 to 20 minutes to complete would result in a lower response rate and perhaps lead to respondent fatigue and a tendency to fall into a response set.

All the measures created for this study were generated through qualitative research via observation of the context by two researchers over a 6-month period, two focus groups with 24 randomly selected cooks, individual interviews with 16 randomly selected cooks and meetings with management and the union representatives. The scales were subsequently pilot tested quantitatively with a randomly selected group of 30 cooks from the subject properties and modification to the measures made based on the results. The cooks who participated in the preliminary work did not subsequently participate in the final survey. The pilot test and, as will be seen below, subsequent analyses using these items, revealed that their structure and internal reliabilities were sound.

**Job satisfaction.** This section of the survey contained a single item employing a “faces” scale (Kunin, 1955). Five male faces were used, as previous research has shown that male and female versions of the faces scale can be used with male or female subjects without biasing the data (Dunham & Herman, 1975). The faces scale shows that “1” represents a pronounced frown (very dissatisfied) and “5” a broad smile (very satisfied). This visually-based pictorial scale was chosen to enhance the survey’s parsimony and because of the substantial validity data associated with it (Locke, Smith, Kendall, Hulin, & Miller, 1964).

**Intent to occupational turnover.** This section of the survey contained a single question addressing cook’s intent to remain in the field of cooking. A single-item, standardized measure was used because of time constraints and the expected willingness of cooks to respond truthfully to sensitive questions of future employment.

**Work-related injuries.** Work-related injury can be broadly understood as damage or harm done to or suffered by a person because of his or her work domain. Numerous studies on the antecedents and consequences of work-related injuries have been conducted, and many researchers favor occupation-specific models due to the belief that construct relationships vary by occupation (Bacharach & Bamberger, 1992; Narayanan, Menon, & Spector, 1999; Sparks & Cooper, 1999). Indeed, recent research confirms that occupation-specific studies are more accurate than general ones (Pousette & Hanse, 2002); thus, cooks deserve special attention.

The work-related injuries measure was designed specifically for this study. This measure consisted of six items and asked respondents if (a) they had work-related injuries, (b) they had to see a doctor because of work-related injuries or pain, (c) they had to deal with regular work-related aches and pains, (d) they had to take medication to deal with work-related pain, (e) they were avoiding reporting work-related injuries, and (f) poorly maintained equipment and/or tools contributed to their work-related injuries. The questions were scored on a frequency scale ranging from 1 (*never*) to 5 (*very often*), and the internal consistency of these items was .86.
Work engagement. This newly designed work engagement scale, based on job characteristics theory (e.g., Hackman & Oldham, 1980), was developed to include only those theoretical aspects of job characteristics for which there were conceptual reasons to link them to work-related injuries or job satisfaction in this occupational context. Selected job characteristics and workload have been successfully studied as the endogenous variables in relation to job satisfaction and intent to turnover (Spector & Jex, 1998).

Work engagement was operationalized by asking respondents how accurately their work in the organization was described by seven items. The items, measuring perceptions of exciting, interesting, motivating, rewarding, significant, creative, and boring (reversed) work were scored on a Likert-type, 5-point scale ranging from 1 (very little) to 5 (very much). Next, the items were aggregated to form the single work engagement score. Cronbach’s alpha on this measure was .87.

Concern for food quality. Because no existing measures existed, we designed a two-item measure of concern for food quality specifically for this study. Cooks were asked how much they believed management cared about food quality, and how much they believed management wanted to increase the food quality in their kitchen. The two items were aggregated to form the overall food quality scale. These questions were scored on a scale ranging from 1 (very little), to 5 (very much). The internal consistency of this measure was .94.

Work demands. A measure of work demands was specifically created for this study to take the nature of cooks’ work into consideration. For this measure, cooks responded to four items about their jobs: how frequently there was a lot of work to do, how often they were required to work fast, how often their jobs required them to work hard, and how often they felt pressure to work fast. The scale for these items ranged from 1 (never) to 5 (often), and results were aggregated to form the work demands scale. Cronbach’s alpha on this measure was .83.

Work conditions. Kitchen work conditions were addressed via five items that tapped their cleanliness and maintenance. Cooks were asked how much pride they had in the appearance of their kitchen, how well their kitchen was being cleaned overnight, how well the equipment and tools were maintained, how quickly the equipment and tools were being repaired, and how good the physical working conditions were in their kitchen. All questions were scored on 5-point scales, then aggregated to form the kitchen condition scale. The scale for each item was slightly different, ranging from very slowly to very quickly to very poor to very good. The Cronbach’s alpha on this newly created measure was .85.

Data Analysis

Data were analyzed using SPSS, version 14.0 and Amos 4.0. We conservatively approached hypothesis testing by first checking for the effects of variables previously found to explain variance (e.g., age, gender) in our outcome.
variables of job satisfaction, intent to turnover, and work-related injuries (e.g., Eichar, Norland, Brady, & Fortinsky, 1991; Greenglass, Burke, & Konarski, 1998). Demographic variables of age, tenure, gender, education, race, job classification (pantry cook, station cook, or sous chef), and English as a first language were not found to affect the data in a multivariate general linear model with between-subjects factors and covariates.

Next, a principal components analysis with varimax rotation was performed to examine the underlying structure of the new measures. The analysis revealed a clean, five-factor structure. A rotated component matrix appears in Table 1.

Table 1: Rotated Component Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work engagement (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excited about work most days</td>
<td>0.695</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job is boring (reversed)</td>
<td>0.621</td>
<td></td>
<td></td>
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<tr>
<td>Job is interesting</td>
<td>0.769</td>
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<tr>
<td>Motivated to do job</td>
<td>0.744</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking is personally rewarding in this organization</td>
<td>0.769</td>
<td></td>
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</tr>
<tr>
<td>Job is significant to this organization</td>
<td>0.669</td>
<td></td>
<td></td>
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<tr>
<td>Job is creative</td>
<td>0.751</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitchen conditions (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pride in kitchen’s appearance</td>
<td></td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of kitchen cleaning</td>
<td></td>
<td>0.736</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of equipment and tools</td>
<td></td>
<td>0.783</td>
<td></td>
<td></td>
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<tr>
<td>Equipment and tools quickly repaired</td>
<td></td>
<td>0.830</td>
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<tr>
<td>Physical working conditions in kitchen</td>
<td></td>
<td>0.711</td>
<td></td>
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</tr>
<tr>
<td>Work-related injuries (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting often</td>
<td></td>
<td></td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoid reporting often (reversed)</td>
<td></td>
<td></td>
<td>0.633</td>
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</tr>
<tr>
<td>Regular aches and pains</td>
<td></td>
<td></td>
<td>0.754</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking medication for pain</td>
<td></td>
<td></td>
<td>0.839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeing a doctor for injuries or pain</td>
<td></td>
<td></td>
<td>0.785</td>
<td></td>
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</tr>
<tr>
<td>Work demands (4)</td>
<td></td>
<td></td>
<td></td>
<td>0.750</td>
<td></td>
</tr>
<tr>
<td>Volume of work on most days</td>
<td></td>
<td></td>
<td></td>
<td>0.749</td>
<td></td>
</tr>
<tr>
<td>Pressure to work fast</td>
<td></td>
<td></td>
<td></td>
<td>0.815</td>
<td></td>
</tr>
<tr>
<td>Working hard</td>
<td></td>
<td></td>
<td></td>
<td>0.866</td>
<td></td>
</tr>
<tr>
<td>Management concern, food quality (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.742</td>
</tr>
<tr>
<td>Management cares about food prepared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure to increase food food quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.753</td>
</tr>
</tbody>
</table>

To summarize, the analysis revealed a clean, five-factor structure. A rotated component matrix is presented in Table 1.
Descriptive statistics and scale reliabilities are presented in Table 2, and a correlation matrix of all measured variables appears in Table 3. The results indicate that significant associations exist between most of the variable pairs. With the exception of work demands, which was significantly associated only with work-related injuries (+) and job satisfaction (−), all the variable pairs were significantly associated. Correlations of other variables with intent to turnover were generally of relatively low magnitude, despite being statistically significant.

The strong scale reliabilities and principal components analyses of the items suggest that conceptual overlap is not a concern. The Cronbach alphas reported for all the scales indicate the measured constructs have strong internal reliability.

To test the hypotheses proposed earlier, and graphically represented in Figure 1, a path model was generated to visually map the assumed relationships (Bollen, 1989a). Structural equations modeling enables the simultaneous testing of the hypothesized relationships—represented by the paths—among the measured variables, and enables one to assess the degree to which the hypothesized model “fits” the data (Bollen, 1989a). If the path model corresponding to the theoretical model in Figure 1 provides a “good” fit to the data, all the hypotheses would...
be supported. It is important to note that whereas good model fit provides support for hypotheses around bivariate relationships, good overall fit is not necessary to test such hypotheses.

The results of testing the hypothesized relationships represented in the path model above are presented in Table 4. As can be seen from an examination of the path coefficients and their corresponding significance levels, eight hypotheses were supported.

The perception of work demands was, as predicted, important to consider as a predictor of job satisfaction (standardized regression weight \( \text{SRW} = -0.288 \)); as were kitchen conditions (\( \text{SRW} = 0.175 \)), concern for food quality (\( \text{SRW} = 0.235 \)), and work engagement (\( \text{SRW} = 0.380 \)). Work demands positively predicted work-related injuries (\( \text{SRW} = 0.153 \)), but kitchen conditions did not (\( \text{SRW} = -0.132, p = .13 \)). Work-related injuries and job satisfaction were found to have a bidirectional but unanticipated relationship. Job satisfaction negatively predicted work-related injuries (\( \text{SRW} = -0.486 \)) but work-related injuries positively predicted job satisfaction (\( \text{SRW} = 0.309 \)). Work-related injuries were found to predict professional turnover intentions (\( \text{SRW} = 0.259 \)) but the link between job satisfaction and professional turnover intentions (PTI) was non-significant (\( \text{SRW} = 0.046, p = .52 \)). Standardized regression weights and hypothesis support are reported in Table 4.

The hypothesized model received mixed support (see Table 4). The results include multiple fit indices of both overall and incremental fit (Bentler & Bonett, 1980; Browne & Mels, 1992; Hoyle & Panter, 1995). These indices include the chi-square test and goodness-of-fit index (GFI; Jöreskog & Sörbom, 1996) for overall fit, and incremental fit and comparative fit indexes (IFI and CFI, respectively; Bentler, 1990; Bollen, 1989b) for incremental fit. Other than the chi-squared
test, for which a $p$ value is available, the .90 standard cutoff for the GFI, IFI, and CFI was used to assess model fit (Bentler & Bonett, 1980; Hoyle & Panter, 1995). Although these indexes indicate a relatively good fit ($\chi^2 = 9.54, p = .089; \text{RMR} = 0.228; \text{GFI} = 0.988; \text{IFI} = 0.987; \text{CFI} = 0.987$), this model is not the best representation of the data.

We respecified a post hoc model (Jöreskog, 1993), adding only those paths for which theoretical justification was available (Arbuckle, 1997). We deleted two nonsignificant paths and added one, as specified by the modification indices (Jöreskog & Sörbom, 1996). We ran a second iteration as one additional nonsignificant path (work demands $\rightarrow$ work-related injury) was revealed in the first iteration and was subsequently removed. The final model provides the most parsimonious explanation of the data. Since the process is post hoc, this model must be confirmed using an independent sample before it is accepted as anything more than the result of the exploration of idiosyncratic data (Hoyle & Panter, 1995). However, this exploratory post hoc model can aid in a preliminary understanding of the phenomena and in identifying directions for future research.

Figure 2 displays the path model resulting from the model respecification process described above. This revised model is substantially more parsimonious than the original, theory-derived model. All the paths in the model are significant (see Table 4 for path SRWs) and the fit indices suggest this is the best possible fitting model, $\chi^2(n = 213) = 5.83, p = .56, \text{RMR} = 0.315, \text{GFI} = 0.992,$

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Variables' Hypothesized Relationship</th>
<th>Direction</th>
<th>Hypothesized Model</th>
<th>Best-Fit Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Job satisfaction $\rightarrow$ Intent to occupational turnover (-)</td>
<td>Not significant</td>
<td>.309</td>
<td>.558</td>
</tr>
<tr>
<td>2a</td>
<td>Work-related injuries $\rightarrow$ Job satisfaction (-)</td>
<td>.486</td>
<td>-.759</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Job satisfaction $\rightarrow$ Work-related injuries (-)</td>
<td>-.259</td>
<td>.206</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Work-related injuries $\rightarrow$ Intent to occupational turnover (+)</td>
<td>.259</td>
<td>.206</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Concern with food quality $\rightarrow$ Job satisfaction (+)</td>
<td>.235</td>
<td>.249</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Work demands $\rightarrow$ Work-related injuries (+)</td>
<td>.153</td>
<td>Not significant</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Work demands $\rightarrow$ Job satisfaction (-)</td>
<td>-.288</td>
<td>-.352</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Kitchen conditions $\rightarrow$ Work-related injuries (-)</td>
<td>Not significant</td>
<td>.175</td>
<td>.223</td>
</tr>
<tr>
<td>8</td>
<td>Kitchen conditions $\rightarrow$ Job satisfaction (+)</td>
<td>.380</td>
<td>.428</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Work engagement $\rightarrow$ Intent to occupational turnover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IFI = 1.003, CFI = 1.000. In support of the results of the hypothesis tests, the new model indicates that the perception of work demands was found important to consider as a predictor of job satisfaction (SRW = -0.352); as were kitchen conditions (SRW = 0.223), concern for food quality (SRW = 0.249), and work engagement (SRW = 0.428). Perception of work demands did not predict work-related injuries; nor was the path between kitchen conditions and work-related injuries supported. Work-related injuries and job satisfaction continued to have a bi-directional relationship with an unexpected turn. Job satisfaction was found to be a negative predictor of work-related injuries (SRW = -0.759), but work-related injuries was found to be a positive predictor of job satisfaction in this sample (SRW = 0.558). Also in this sample, work-related injuries predicted PTI (SRW = 0.206), whereas work engagement negatively predicted PTI (SRW = -0.204).

DISCUSSION

This study contributes to our understanding of cooks’ intent to leave the occupation in several important ways. First, the notion that perceptions of work-related injuries in the present affect intent to leave the cooking occupation in the future now has preliminary empirical support. Furthermore, the study revealed that work engagement may also be influential in predicting cooks intent to turnover from the profession.

Surprisingly, kitchen conditions did not significantly influence cooks’ work-related injuries in our study. This may be because of the skill level of our sample, or its unionized context. Such unionized contexts may have higher standards for
kitchen conditions than the average population of cooks faces. Moreover, there may be a threshold point for kitchen conditions where the link to work-related injuries becomes significant—a point that may not have been reached here because of contextual or other factors. Additionally, it may be that the cooks perceive themselves to be responsible for their own work-related injuries. If a cook cuts himself or herself, he or she may be more likely to make an internal attribution rather than blame the knife.

Also striking was the absence of a link between job satisfaction and professional turnover intentions. This finding may be because of strong extrinsic factors such as compensation and benefits. If employees receive excellent wages and superior benefits, they may be locked in an otherwise unsatisfactory profession in terms of work engagement. Thus, the notion of measuring job satisfaction as a predictor of organizational turnover may be folly in such a context, as supported by these results. Certainly with global measures of job satisfaction, finding a link between job satisfaction and professional withdrawal cognitions may be difficult if the satisfaction with pay, benefits, and other factors outside of the work itself, are satisfactory. Thus, the employee may rationalize continued membership thusly: “I get paid well; I have full health care coverage; I have job security, etc. I’m pretty satisfied with that. But I sure don’t like cooking anymore.” Thus, in such contexts where the job and the profession is or was perceived as artistic, intrinsically-satisfying work that allowed for personal expression, work engagement may be a better predictor of PWC, and even job/organizational withdrawal cognitions, than job satisfaction. This explanation is in keeping with Becker’s (1960) side bets theory, which states that some people stay in their work because they have golden handcuffs.

Another intriguing finding was the surprising direction of the path between work-related injuries and job satisfaction. On closer examination, this finding is not nonsensical. Our particular sample consisted of cooks in full-service restaurants, most of which could be considered upscale or fine dining. Within this sample, it is possible that the culture of this occupational niche exhibits certain attitudes and behaviors described in anecdotal literature. In such work cultures, cooks may brag about “battle scars” that are evidence of work-related injuries and work-related pride. When asked to report their perceptions of work-related injuries, participants may have felt more satisfied with their work when feeling this sense of pride in their injuries.

LIMITATIONS AND CONCLUSION

This study, like all research, has its limitations. First, we studied union cooks from a group of hotels in a single metropolitan area in the United States. The results presented here should be generalized to all hotel cooks with caution. The union–management relations in this particular group of hotels may not be reflective of those in other properties in this or other cities. Further, nonunion cooks or those in freestanding restaurants might hold entirely different views from those of the population studied here as the work and work relationships vary according to context.
Additionally, the cooks in our sample included some workers for whom English was a second language. Although first language of the respondents was found to have no influence on the results, both of these factors limited the complexity of our survey questions.

Perceptual measures of our construct’s variables, though sound in reliability and validity, have been criticized for the disadvantages that the human factors of mood and emotion bring about; however, the objective work environment was not our variable(s) of interest in this study. Controlling for human factors may yield a narrower view of the meaning of work life and occupational choices in the cooking context, but further research is needed to clarify which methods and interpretations of data make the most sense for such studies.

Debate abounds as to the complex relationships this study addresses: namely, between elements of work environment and work context, work-related injuries, job satisfaction, and intent to turnover. It is possible that variables not considered in this study, if accounted for, would improve the goodness of model fit. Given the limitations of the study and the unique constraints inherent in this occupational group, further study is needed to clarify how other important variables (e.g., organizational commitment, personality variables) influence the relationships described here.

Given the counterintuitive findings regarding work-related injuries and job satisfaction, further examination is in order regarding the notion of “battle scars” being positively related to job satisfaction. It may be that cognitive dissonance reduction is at work: if one continues to work in a job that is dangerous or injury-producing, then one must like it (Snyder, 1974). Additionally, being able to work through injuries may increase one’s self esteem, and one may attribute this increased esteem to the job.

This study’s replication is encouraged, in various hospitality occupations and in other industries and economic sectors, and multimethod research is strongly advocated to address the “why” question behind the constructs’ dynamics. Certainly determining the rigor of the respecified model in other professions in which employees have had their “artistic license” limited would lend support for the finding of work engagement being more meaningful than job satisfaction in predicting professional withdrawal cognitions.

Notwithstanding the limitations and suggestions for further work, this study is an important first step in understanding what drives cooks’ professional withdrawal cognitions. Importantly, light was also shed on how cooks’ perceptions of their work and work environments influence work-related injuries and global job satisfaction. Given the current and predicted future staffing shortfalls among cooks, researchers should continue to contribute to the hospitality literature in such theoretically and practically significant ways, as industry simply does not have the answers on its own.

REFERENCES


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