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Investigating turnover intention among emergency communication specialists

Yufan Liu
University of South Florida

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Investigating Turnover Intention among Emergency Communication Specialists

by

Yufan Liu

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Psychology
College of Arts and Sciences
University of South Florida

Major Professor: Walter Borman, Ph.D.
Michael Brannick, Ph.D.
Bill Sacco, Ph.D
Steven Stark, Ph.D.
Kevin Thompson, Ph.D.

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Investigating Turnover Intention
among Emergency Communication Specialists

Yufan Liu

ABSTRACT

This study tested a model that uses job stressors, equity sensitivity, perceived organizational justice, and job satisfaction to explain turnover intention and organizational citizenship behavior (OCB). An online survey was distributed to emergency communication specialists from 14 emergency communication centers in Florida. The supervisors in these emergency communication centers were asked to rate their employees on OCB. Responses to the survey and the OCB ratings were analyzed using structural equation modeling to evaluate the fit of a theoretical model to those data. Results showed that the model fit the data reasonably well and nearly all the hypotheses were supported. Specifically, job satisfaction completely mediated the relationships between job stressors, equity sensitivity, perceived organizational justice, and turnover intention. Job satisfaction partially mediated the relationships between job stressors, equity sensitivity, perceived organizational justice, and OCB, and equity sensitivity also had a unique, direct impact on OCB. Turnover intention alone did not reduce OCB. The implications of these finding are discussed.
Chapter One

Introduction

The present study was initiated in reaction to the Lakeland Police Department Chief’s request to investigate the serious turnover problem among Emergency Communication Specialists (ECS) working in the Lakeland Emergency Communication Center. The Center has been experiencing high turnover of ECS for the past several years. In fact, in 2002 there were 15 new hires and 18 resignations. For an organization with a total number of 35 people, 18 resignations reflect a turnover rate of more than 50%. Moreover, most of the resignations occurred within the first two years of employment. According to the Chief of Police, the department has spent a large amount of money in hiring and training costs only to have 100% of these employees hired in 2002 separate from the organization.

Turnover cost can be divided into three categories: separation, replacement, and training cost (Cascio, 2000; Flamholtz, 1985). Separation costs represent costs directly produced by quits, such as the expense of exit interviews with leavers. Replacement costs refer to expenses incurred to replace exiting employees, such as the costs of advertising the vacant position. Training costs comprise company expenditures to orient and train new replacements for former employees (Griffeth, & Hom, 2000). In addition
to the financial cost, high turnover also results in other problems, such as the
communication center’s understaffing, existing ECS personnel having to work overtime,
and longer response time to emergency calls. Of course, this chaotic situation brings
more stress to the job, which may lead to even higher turnover.

The retention of ECSs is acknowledged as a national problem as well. The
Association of Public Safety Communications Officials International (APCO), as the
leading public safety dispatch organization in the nation, initially addressed the staffing
crisis in the United States' communications centers with the formation of a
Communications Center Staffing Crisis Task Force in August 2000. The Staffing Crisis
Task Force found that personnel recruitment and retention are the keys to the staffing of
the nation's 9-1-1/Public Safety Communications Centers (APCO, 2003). The present
study was conducted in collaboration with the Lakeland Civil Service and Retirement
Department.

Mobley (1982) defined turnover as the cessation of membership in an
organization by an individual who received monetary compensation for participating in
that organization. Among different methods of classifying turnover, a frequently used
distinction is between voluntary separations (employee-initiated) and involuntary
separations (organization-initiated, plus death and mandatory retirement).

Behavioral intentions have been studied in the field of turnover research since
1975 (Hom, Katerberg, & Hulin, 1979; Kraut, 1975; Mobley, Griffeth, Hand, & Meglino,
Part of the reason for this popularity is because of the theoretical arguments that have singled them out as the most direct and immediate cognitive antecedents of overt behavior. Fishbein and Ajzen’s (1975) theory of attitudes postulates, “the best single predictor of an individual’s behavior will be a measure of his intention to perform that behavior” (p.369). Thus, attitudes are presumed to have a direct impact on behavior operating through their more immediate influence on behavior intentions.

Research supports the model that job dissatisfaction leads to intention to quit (Blau, 1993), which leads to turnover (Carsten & Spector, 1987). Accumulated evidence concludes that the single best predictor of turnover is an employee’s decision to quit the job (Carsten & Spector, 1987; Griffeth, Hom, & Gaertner, 2000; Hom & Griffeth, 1995; Steel & Ovalle, II, 1984; Tett & Meyer, 1993). Carsten and Spector’s (1987) meta-analytic research showed an average correlation of .38 between turnover intention and turnover behavior. Steel and Ovalle, II, (1984) found a weighted average correlation of .50 after correcting for attenuation between behavior intentions and employee turnover in their meta-analytic study. They also suggested that intentions were more predictive of turnover than overall job satisfaction (r = .28), satisfaction with the work itself (r = .31), or organizational commitment (r = .36). Results of some studies show that intent to leave completely (Mowday, Koberg, & McArthur, 1984) or partially (Tett & Meyer, 1993) mediates attitude-turnover relations.
The present study investigated the antecedents of turnover intention from various perspectives: a behavioral perspective (OCB), an attitudinal perspective (job satisfaction and perceived organizational justice), a dispositional perspective (equity sensitivity), and an environmental perspective (job stressors). It was also recognized that these variables interact with one another to influence the formation of turnover intention.
Chapter Two
Organizational Citizenship Behavior

According to Katz and Kahn (1978), effective organizations require employees not only to perform their prescribed role, but also to engage in behaviors that go beyond these formal obligations. This aspect of performance is consistent with Organ’s (1988) conceptualization of organizational citizenship behavior (OCB), which refers to discretionary job related behaviors that are not formally or directly recognized by the organizational reward system, but enhance organizational effectiveness when aggregated over time and people. Research on OCB and citizenship-like behaviors, such as extra-role behavior (Van Dyne, Cummings, & Parks, 1995), contextual performance (Borman & Motowidlo, 1993; Borman, White, & Dorsey, 1995; Motowidlo & Van Scotter, 1994), prosocial organizational behaviors (Brief & Motowidlo, 1986; George, 1990, 1991; George & Bettenhausen, 1990; O’Reilly & Chatman, 1986), and organizational spontaneity (George & Brief, 1992; George & Jones, 1997), has increased dramatically during the past few years.

The growing interest in OCB can be partly explained by the fact that OCB has a considerable impact on several important personnel decisions made by supervisors, such as performance evaluation, salary recommendations, and promotion recommendations.
(Borman & Brush, 1993; Conway, 1996; MacKenzie, Podsakoff, & Fetter, 1991; Motowidlo & Van Scotter, 1994). For example, in Motowidlo and Van Scotter’s (1994) study, one supervisor made an overall performance rating, a second supervisor provided ratings on task performance, and a third supervisor rated contextual performance using the Borman and Motowidlo taxonomy to define the dimensions. The correlation between the task performance and overall performance ratings was .43. The correlation between contextual performance and overall performance ratings was .41. Therefore, supervisors weighted task and contextual performance about the same in making overall performance judgments.

According to Organ’s (1988) original definition, OCB must be discretionary and non-rewarded, which contradicts the above findings that OCB has at least a similar impact on important personnel decisions as does task performance. Moreover, many researchers have questioned the distinction between in-role and extra-role job behaviors. Evidence suggests that most employees regarded OCB to be more in-role than extra-role (Tepper, Lockhart, & Hoobler, 2001). Organ (1997) recognized the conceptual difficulties associated with distinguishing discretionary and required work related behaviors. Therefore, he later redefined OCB as behavior that contributes “to the maintenance and enhancement of the social and psychological context that supports task performance” (Organ, 1997, p. 91). This modified definition of OCB is very similar to Borman and Motowidlo’s (1993, 1997) definition of contextual performance.
According to Motowidlo, Borman, and Schmit (1997), contextual performance does not contribute through the organization’s core technical processes but it does maintain the broader organizational, social, and psychological environment in which the technical core must function. It includes activities that enhance the psychological environment, such as helping and cooperating with others; following organizational rules and procedures even when personally inconvenient; endorsing, supporting, and defending organizational objectives; persisting with enthusiasm when necessary to complete own tasks successfully; and volunteering to carry out task activities that are not formally part of the job.

Past research has mainly focused on the relationships between OCB and other constructs; however, several scholars have noticed a lack of consensus about the dimensionality of this construct and tried to categorize the various behaviors using different methods (Van Dyne, Cummings, & Parks, 1995; Podsakoff, et al., 2000; Borman, Buck, Hanson, Motowidlo, Stark, & Drasgow, 2001; Coleman & Borman, 2000; LePine, Erez, & Johnson, 2002). Organ (1988) originally proposed five OCB dimensions: conscientiousness, sportsmanship, courtesy, altruism, and civic virtue. Conscientiousness is defined as being punctual, high in attendance, and going beyond normal requirements or expectations. Sportsmanship refers to the extent to which an employee does not complain unnecessarily or make a big deal out of small issues. Courtesy is defined as behaviors that prevent problems from occurring for others by doing things such as giving advance notice and passing along information. Altruism is represented by voluntary behaviors that help others with existing job-related problems.
Finally, civic virtue represents responsible, constructive involvement in the political process of the organization, including attending meetings, expressing one’s opinions about what strategy the organization ought to follow, keeping up with changes in the industry that might affect the organization, etc. Organ’s five dimensions overlap with other citizenship-like behaviors mentioned previously, such as extra-role behavior, contextual performance, prosocial organizational behaviors and organizational spontaneity. They may have different names, or different categorization, but they possess similar content.

To reduce the ambiguity concerning the structure of OCB, Borman, et al. (2001) concluded that a three-factor model might summarize citizenship performance, comprised of personal support, organizational support, and conscientious initiative. They also developed item pools for each factor. With item effectiveness criteria considered, five personal support items and four conscientious initiative items were selected for measuring OCB in the present study. Items measuring Organ’s courtesy and sportsmanship dimensions are included as well for reasons explained later in the method section.

The present study proposed that OCB may be a promising behavioral antecedent of turnover. Past research related to behavioral antecedents of turnover mostly focused on lateness, tardiness, and absenteeism, but the majority of the results were discouraging (Benson & Pond, 1987; Rosse, 1988). These withdrawal behaviors are not good predictors of turnover, probably because they are constrained by the organization,
are part of the organizational reward system, or both (Chen, Hui, & Sego, 1998). Rosse
and Miller (1984) pointed out that dissatisfied employees may experiment with
avoidance responses that have the fewest negative consequences. As OCBs are often
not formally mentioned in job descriptions, employees might decide to withhold them
when they are not satisfied with the organization. Although in most cases, OCB is
actually compensated by organizations, as existing research suggested, exhibiting low
levels of OCB may not directly result in punishment.

Two studies (Chen, et al., 1998; MacKenzie, Podsakoff, & Paine, 1998) have
shown that OCBs are negatively related to turnover. Chen et al. (1998) found that actual
turnover was significantly related to all OCB dimensions they measured: overall OCB (r
= -.28), altruism (r = -.24), conscientiousness (r = -.23), and sportsmanship (r = -.19); on
the other hand, turnover intentions had weaker relations with OCBs, only correlating
significantly with overall OCB (r = -.17), altruism (r = -.15), and sportsmanship (r = -.19),
but not with conscientiousness.
Chapter Three

Job Satisfaction

Job satisfaction is one of the most frequently studied work attitudes. It is a variable that reflects how people feel about their job overall, as well as various facets of the job. The job facets include but are not limited to rewards (pay or fringe benefit), other people on the job (supervisors or coworkers), organizational policies, job conditions, and the nature of the work itself. An individual typically has different levels of satisfaction with the various facets.

The relationship between job satisfaction and intent to leave is generally thought to be negative (Carsten & Spector, 1987; Tett & Meyer, 1993), which means that dissatisfied employees are more likely to voluntarily leave the organization than satisfied employees. Meta-analytic studies suggested that among various job attitudinal variables, overall job dissatisfaction was the best predictor of turnover, and satisfaction with the job itself displayed the highest relationship to turnover among the facets (Griffeth & Hom, 1995; Griffeth, Hom, & Gaertner, 2000). Although the relationship between job satisfaction and turnover intention is typically negative, the effect size of this relationship is not consistent within the literature. Hellman (1997) found that organization type and employee tenure moderate this relationship. In particular, U. S. federal employees with
higher levels of tenure were less likely than their counterparts in the private sector to consider leaving the organization across levels of job satisfaction.

Job satisfaction has also been supported by research to be an important predictor of OCB (Bateman & Organ, 1983; Smith, Organ, & Near, 1983; Motowidlo, Packard, & Manning, 1986; Puffer, 1987; Organ & Konovsky, 1989). However, job satisfaction may partially or completely act as a mediator that passes along the effect of perceived organizational justice to OCB or to turnover. For example, Moorman (1991) found that correlations between job satisfaction and OCB dropped to not significant after controlling for the relationship between procedural justice and OCB. More details about this point will be discussed in the following perceived organizational justice section.
Chapter Four
Perceived Organizational Justice

Early justice theories focused on distributive justice – the outcomes received by individuals. For instance, equity theory (Adams, 1963) posits that individuals consider what they receive from work as outcomes including items such as pay, recognition, and feelings of achievement. They also consider what they bring to work as inputs, including effort, qualifications and experience. Individuals compare their outcome/input ratio with the outcome/input ratios of referent others. Referents could be jobholders in the same job and organization, jobholders in different jobs within the same organization, or jobholders in different organizations. If the perceived ratios of the individual and comparison others are unequal, then inequity is said to exist. The perception of inequity results in a state of dissonance or tension that motivates the person to engage in behaviors designed to restore equity and relieve the tension (e.g., raise or lower worker efforts to reestablish equity, ask for better rewards, or even leave the inequitable situation).

Current organizational behavior research related to perceived equity uses a justice framework that goes beyond distributive justice, focused on by equity theory. Greenberg (1990) argued that employees attend to both organizational processes and outcomes in deciding whether they are treated fairly. He suggested that procedural justice (e.g.,
fairness of procedures used in distributing pay and benefits) and interactional justice (whether the person is treated with concern and consideration) also play a role in determining employee affective and behavioral responses.

Conceivably, fair procedures have as much – if not more – to do with encouraging employees to stay in the organization as fair pay amounts. Fair policies show that the organization values and respects employees and assures them they will receive fair treatment (Folger & Cropanzano, 1998). To reciprocate such perceived organizational support, employees develop stronger organizational commitment (Shore & Wayne, 1993). In support, Folger and Konovsky (1989) reported that perceived fairness of merit-pay distributions committed employees to their organization more than did satisfaction with the amount of the raise. Based on 11 independent studies, Griffeth et al., (2000) found in their meta-analysis research that procedural justice has a significantly negative correlation with turnover intention.

We do not yet know if different forms of organizational justice have a similar impact on intent to quit. Thus, the present study tries to clarify the question of whether or not all three forms of organizational justice are equally important in employees’ decisions to leave.

Procedural justice also serves as an important predictor of OCB. Two often studied antecedents of OCB are job satisfaction and organizational commitment, and both have been supported by research to have significant relationships with OCB (Bateman &
Organ, 1983; Smith, Organ, & Near, 1983; Motowidlo, Packard, & Manning, 1986; Puffer, 1987; Organ & Konovsky, 1989). However, the relationship between commitment and OCB may be overstated, because when the correlation between job satisfaction and OCB has been controlled, no relationship was found between organizational commitment and OCB; on the other hand, when the relationship between organizational commitment and OCB was controlled, job satisfaction still explained significant variance in OCB (Williams & Anderson, 1991).

Organ (1990) proposed that the cognitive component of job satisfaction – employees’ evalulative assessments of fairness – accounts for the relationship between job satisfaction and OCB. He regarded OCB as an input that employees can use to resolve perceived inequities with their employer, raising or lowering their OCB as a function of the kind of treatment they believe they are receiving. Employees will perform OCBs if they believe they are being treated fairly and retaliate for perceived injustices by withholding OCBs. Although individuals may restore equity by modifying their performance of both task performance and OCB, it is more likely that they will use the latter because it is less constrained by situational factors.

Moorman (1991) tested the relative importance of two forms of job fairness (distributive justice and procedural justice) and job satisfaction in predicting OCB and found that procedural justice was more strongly related to OCB than job satisfaction. When the relationship between procedural justice and OCB was controlled, job satisfaction did not explain any significant variance in OCB. In fact, with all three
antecedents considered, no individual relationships between job satisfaction and OCB nor between organizational commitment and OCB were found once the relationship between procedural justice and OCB was controlled (Moorman, Niehoff, & Organ, 1993).

McNeely and Meglino (1994) made a further step to separate the factors responsible for OCB intended to benefit specific individuals from those intended to benefit an organization. They found that both dispositional factors (concern for others and empathy) and job satisfaction made significant independent contributions in predicting OCB toward individuals. Situational variables (reward equity and recognition) and job satisfaction were both correlated with OCB toward the organization, but the effect of job satisfaction drops to non-significant after controlling for the situational variables. This suggests that job satisfaction does not make a unique contribution to OCB toward organizations. Instead, it conveys the effect of reward equity and recognition to OCB toward organization.
Chapter Five

Equity Sensitivity

Although equity theory gained early support and research attention after its introduction by Adams, subsequent equity theory research has resulted in ambiguous findings, especially in the over-rewarded situation (Mowday, 1991). Miner (1984) had even classified equity theory among a list of ‘not so useful’ theories of organizational behavior. One problem with equity theory was its failure to incorporate in its predictions individual differences except demographic variables (e.g., age, gender, and nationality). Comprehensive reviews of equity theory (Mowday, 1991) have noted the lack of a conceptual framework for individual differences in equity theory predictions, and have accordingly called for the incorporation of psychological individual differences into equity theory's formulation.

One recent approach that holds promise for building such a conceptual framework for a psychological individual difference variable in equity theory is consideration of the variable, equity sensitivity (Huseman, Hatfield, & Miles, 1985; 1987). Equity theory (Adams, 1965) is based on the assumption that all individuals are equally sensitive to equity, i.e., the universal preference among individuals is that their outcome/income ratio is equal to that of the comparison other.
Huseman et al. (1985) proposed that this preference is not universal and that individuals possess varying degrees of sensitivity to equity. They classified individuals along a continuum as benevolents, equity sensitives, or entitleds according to their sensitivity to equity. As originally defined, benevolent individuals ‘prefer their outcome/input ratios to be less than the outcome/input ratios of the comparison other’ (Huseman et al., 1987, p. 223), and their satisfaction is a result of ‘perceiving that their inputs exceed their outcomes and that they have made valuable contributions to the relationship' (Huseman et al., 1985, p. 1056); equity sensitive individuals prefer that outcomes equal inputs; entitled individuals prefer that outcomes exceed inputs. Huseman et al. (1987) also developed a scale for measuring equity sensitivity. Details about this measurement tool will be explained in method section.

Huseman, Hatfield, and Miles (1985) conducted a 3 X 3 experiment to test for main and interaction effects of equity sensitivity and perceptions of equity on job satisfaction. In this experiment, participants were classified as benevolents, equity sensitives, or entitleds, and reward was manipulated to produce three levels of equity perceptions: under-rewarded, equitably rewarded and over-rewarded. The results showed significant main effects of equity sensitivity and perceptions of equity, but no significant interaction. They concluded that equity sensitive persons follow the prediction of equity theory, i.e., they had higher satisfaction when equitably rewarded than when they were under- rewarded and over-rewarded. However, contrary to their hypothesis, benevolents had the same pattern as did entitleds: they were most satisfied when over-rewarded and
least satisfied when under-rewarded, although benevolents had higher satisfaction than entitleds across all conditions. So for these groups, the higher the reward, the higher the satisfaction. These results challenged the original definition of benevolents, so more recent work (King, Miles, and Day, 1993) has described benevolents in terms of tolerance rather than preference for under-reward. That is, benevolents also prefer being over-rewarded, but they are more tolerant (less sensitive) to being under-rewarded than entitleds are.

From this description of the three types, it is obvious that equity sensitivity should be negatively correlated with perceived organizational justice. That means under the same treatment, benevolents (low equity sensitivity) are more likely to feel they are being treated fairly. Consequently benevolents should be more satisfied with their job. As reviewed above, employees perform OCB as reciprocation when they feel fairly treated, and satisfied workers engage in OCB more. Thus, it is appropriate to hypothesize that benevolents exhibit more OCBs than entitleds do. In other words, equity sensitivity should be negatively correlated with OCB. As of now, there is no published research regarding the relationship between OCB and equity sensitivity.
Now we turn our attention to the environmental predictors of turnover intention. Job stressors represent a situation in which job related factors deviate the worker from his or her normal psychological and/or physical functioning (Beehr & Newman, 1978). Some important stressors are: organizational constraints, interpersonal conflict, workload, role stressors (e.g., role ambiguity, role conflict, and role overload), and perceived lack of autonomy (Jex, 1998).

Job stress has been receiving increasingly more attention from researchers because of its serious negative impact on employees’ health and well-being. Job strains reflect the negative reactions that employees may have to job stressors (Jex, 1998). They are classified as psychological strains and physical strains (Jex & Beehr, 1991). Psychological strains refer to the internal psychological states and conditions, including anger, anxiety, depression, job dissatisfaction, or turnover intention. Physical strains refer to the physiological reaction to the job stressors that range from minor somatic complaints (e.g., headaches and stomachaches) to more serious conditions (e.g., coronary heart disease) (Jex, 1998).
Psychological strains have been more frequently examined than physical strains, and have been shown to have stronger correlations with job stressors than physical strains (Jex, 1998). For example, job stressors have been shown to correlate significantly with anxiety (Jackson & Schuler, 1985; Spector, Dwyer, & Jex, 1988), depression (Tetrick & LaRocco, 1987), frustration (Spector & Jex, 1991), hostility (Motowidlo, Packard & Manning, 1986), job dissatisfaction (Jackson & Schuler, 1985; Spector, 1986), job involvement (Spector, 1986), and turnover intentions (e.g., Jackson & Schuler, 1985; Spector, 1986). The present study focused on the relationships between certain types of job stressors (e.g., interpersonal conflict at work, organizational constraints, and quantitative workload) and psychological job strains (e.g., job dissatisfaction and turnover intention).

One of the important job stressors is organizational constraints. Organizational constraints are defined as working conditions that interfere with employees’ job performance (Peters & O’Connor, 1980), such as poorly maintained equipment, inadequate technical support, and budgetary cuts. Peters and O’Connor (1980) identified 11 sources of organizational constraints: (1) job-related information, (2) budgetary support, (3) support required by the job, (4) materials and supplies, (5) required services and help from others, (6) task preparation, (7) time availability, (8) the work environment, (9) scheduling of activities, (10) transportation, and (11) job-relevant authority. Spector and Jex (1998) developed the Organizational Constraints Scale based on Peters and O’Connor’s work. Research showed that employees with more constraints tended to report higher level of frustration, job dissatisfaction, and turnover intention.
Another important job stressor is interpersonal conflict. Interpersonal conflict in the workplace may range from minor disagreements between coworkers to physical violence on others. The conflict may be overt (e.g., being rude to a coworker) or may be covert (e.g., spreading rumors about a coworker) (Spector & Jex, 1998). Conflict with other people at work, such as supervisors, coworkers, and customers, could make work very stressful (Keenan & Newton, 1985; Narayanan, Menon, & Spector, 1999).

Interpersonal conflict has been reported to relate to both psychological and physical strains. In their meta-analysis, Spector and Jex (1998) concluded the average sizes of relationships were substantial between interpersonal conflict and job satisfaction ($r = -0.32$), depression ($r = 0.38$), turnover intention ($r = 0.41$), and somatic symptoms ($r = 0.26$). They also found that organizational constraints and interpersonal conflict showed similar magnitudes of relations with psychological strains.

Quantitative workload refers to the amount or quantity of work in a job, as opposed to qualitative workload, which is the difficulty of the work. A heavy workload may cause some level of uncertainty for employees about whether they can get all of the work done (Beehr & Bhagat, 1985). Such uncertainty is likely to create feelings of anxiety and worry, which then may lead to some physical symptoms. Frone (1998) found that both quantitative workload and interpersonal conflict at work had significant effects.
on employees’ somatic symptoms. Spector and Jex (1998) expected lower correlations between workload and psychological job strains compared to other job stressors, because a large amount of work alone does not necessarily lead to distress if, for example, the individuals enjoy working. They found weaker relations between quantitative workload and most psychological strains. In particular, quantitative workload did not relate as highly with job satisfaction ($r = -.17$), and its correlation with turnover intention averaged .24.
Chapter Seven

Hypotheses

The following hypotheses were tested in the present study.

Hypothesis 1: Job stressors (+), equity sensitivity (+), and perceived organizational justice (-) are correlated with turnover intention.

Hypothesis 2: Job stressors (-), equity sensitivity (-), and perceived organizational justice (+) are correlated with job satisfaction.

Hypothesis 3: Job stressors (-), equity sensitivity (-), and perceived organizational justice (+) are correlated with OCB.

Hypothesis 4: Job satisfaction is negatively correlated with turnover intention.

Hypothesis 5: Job satisfaction is positively correlated with OCB.

Hypothesis 6: Turnover intention is negatively correlated with OCB.

Hypothesis 7: The relationships between the independent variables (job stressors, equity sensitivity, and perceived organizational justice) and the dependent variable (turnover intention) are mediated by job satisfaction.

Hypothesis 8: The relationships between the independent variables (job stressors, equity sensitivity, and perceived organizational justice) and the dependent variable (OCB) are mediated by job satisfaction.

A model describing the above hypotheses is provided in Figure 1.
Figure 1: Initial Model

Job Stressor

Job Satisfaction

Equity Sensitivity

Turnover Intention

Perceived Justice

OCB
Chapter Eight

Method

Participants

The sample was comprised of 321 emergency communication specialists working at 14 emergency communication centers in Florida. Seventy-eight percent of participants were females. Thirty percent of them were in their 20s, 30 percent of them were in their 30s, and 25 percent of them were in their 40s. As to ethnic background, 75 percent were white, 13 percent were hispanic, and 12 percent were black. For the highest level of education, 32 percent of them had high school diploma, 11 percent had bachelor degree, and 45 percent received some college education. As for the experience with emergency communication centers, 32 percent of them had less than 1 year, 29 percent with 1-3 years, 13 percent with 3-5 years, and 26 percent with more than 5 years.

Measures

The turnover intention measure was developed by Camman, Fichman, Jenkins, and Klesh (1979). It is a 3-item scale asking about job choice. Respondents were asked to indicate how accurately each statement described them. Response options range from (1) “extremely disagree” to (5) “extremely agree”. The internal consistency (Cronbach alpha) was 0.77 in the current study. Refer to Appendix A for the items.
Organizational citizenship behavior was measured by a 19-item scale, from items developed by Borman, Buck, Hanson, Motowidlo, Stark and Drasgow (2001) and Podsakoff, MacKenzie, Moorman, and Fetter (1990). The OCB scale measures four dimensions: personal support and conscientious initiative from Borman, et al. (2001), and courtesy and sportsmanship from Podsakoff, et al. (1990). Items measuring courtesy and sportsmanship were selected, because the supervisors at the emergency communication centers reflected that during the 12 hour long work shift, ECSs sometimes yelled at each other, and they also complained a lot. Therefore, these two dimensions seemed relevant for participants in this study. Each dimension has 5 items, except conscientious initiative with 4 items. Each item is rated on a 5-point scale ranging from (1) “strongly disagree” to (5) “strongly agree”. The coefficient alphas in this study were 0.93, 0.79, 0.89, 0.79, and 0.89 for overall OCB, conscientiousness initiative, courtesy, personal support, and sportsmanship respectively. Appendix B lists the OCB items.

Job stressors were measured with a 20-item scale developed by Spector and Jex (1998). The scale consists of three subscales: Interpersonal Conflict at Work Scale (ICAWS), Organizational Constraints Scale (OCS), and Quantitative Workload Inventory (QWI). The OCS is an 11-item scale covering each of the constraint areas discussed in Peter and O’Connor (1980). For each item, the respondent is asked to indicate how often it is difficult or impossible to do his or her job because of the reasons described in each item. Response choices range from (1) “less than once per month or never” to (5) “several times per day”. High scores represent high levels of organizational constraints.
The ICAWS is a 4-item scale, asking about how often respondents get into arguments with others and how often others do nasty things to them. Response options range from (1) “rarely” to (5) “very often”. High scores represent frequent conflicts with others. The QWI is a 5-item scale, concerning amount of work. Respondents are asked to indicate how often the behaviors described by each statement occur at work. Response options range from (1) “less than once per month or never” to (5) “several times per day”. High scores represent a high level of quantitative workload. As Spector and Jex (1998) pointed out, the individual items of the OCS scale are not considered to be parallel forms of the same underlying construct. Different from the traditional causal indicator scales, the items in the OCS are the causes of the underlying construct, rather than the effects of the underlying construct. Thus, they concluded that the coefficient alpha is not an appropriate index of reliability for the OCS. The coefficient alphas for ICWS and QWI in the current study were 0.82 and 0.76. Appendix C contains the job stressor items.

The Equity sensitivity scale was developed by Huseman, Hatfield and Miles (1985). This is a 5-item forced-distribution scale that identifies a respondent’s desire for outcomes versus inputs in a general work situation. The respondent has a choice of two responses for each item, one representing a benevolent response and the other an entitled response. Respondents show their agreement or disagreement with each response by distributing 10 points between the two statements. The instrument is based on the premise that benevolents will allocate more of their 10 points to the benevolent statement than to the entitled statement; that entitleds will allocate more of their 10 points to the entitled statement than to the benevolent statement; and that equity sensitives will
allocated their 10 points approximately equally between the benevolent and entitled statements. Item 1, for example, is “In any organization I might work for, it would be more important for me to: (a) get from the organization (b) give to the organization.” Equity sensitivity scores are the sum of points allotted to the entitled statement in each of the five survey items. The coefficient alpha in this study was 0.57. Refer to Appendix D for the items.

*Perceived organizational justice* was measured on a 17-item scale developed by Moorman (1991). It measures three types of organizational justice: distributive justice, procedural justice, and interactional justice. Response options range from (1) “strongly disagree” to (5) “strongly agree”. The alpha coefficients for overall organizational justice, distributive justice, procedural justice, and interactional justice were 0.96, 0.80, 0.92, and 0.98 respectively. Appendix E contains the items.

*Job satisfaction* was measured with a 36-item survey developed by Spector (1997). It measures 9 facets of job satisfaction: pay, promotion, rewards, supervisor, benefits, operating conditions, coworkers, nature of work, and communication. Each item was rated on a 6-point Likert scale ranging from (1) “disagree very much” to (6) “agree very much”. When the facets are combined, it provides an indication of total job satisfaction. The coefficient alpha for the job satisfaction survey was 0.92 in this study. Refer to Appendix F for the items.

*Procedure*
Stage 1 was the preparation period during the summer of 2003. After a thorough literature review, the Emergency Dispatch Diagnostic Inventory (EDDI) was compiled to include all the above scales. With the help of people who work in Lakeland Civil Service and Retirement Department, the EDDI except the OCB scale was posted on Lakeland government web site (http://www.lakelandgov.net/survey/login.asp). The OCB scale was to be completed by supervisors. An invitation email with assigned username and password was to be sent to everyone whose agencies agreed to participate in this study. Each participant was to have a unique username and password to login to the survey system. A benefit of an assigned username is that participants feel it is like an anonymous survey. The instructions for completing the survey guaranteed confidentiality.

At stage 2, we sent out brochures to neighboring city agencies. The brochure briefly introduced the current study, and invited the supervisors in charge of emergency communication centers to attend one of our two information sessions on 09/30/03 and 10/14/03. In both sessions, we presented more details about this project, such as the past research, the current research design, data collection methods, and the type of results they could receive after we finished the study. About nineteen agencies came to our information sessions, and fourteen of them agreed to participate in the study.

Stage 3 was the data collection period. Those agencies that agreed to participate provided us with the names and email addresses of their ECSs. Then we sent out a package to each agency. The package included the consent forms (Appendix G) for
ECSs, the OCB scales for supervisors with ECSs’ name on the top right corner, and the rating instructions (Appendix H) for supervisors. Also, supervisors were provided with a training orientation on rating biases. They were instructed to read the material, be aware of the rating biases, and then evaluate their subordinates’ OCB. Return postage was provided. Finally, we sent out an invitation email to all the ECSs with their user name and password. The response rate for the ECSs was 63%.

Stage 4 was the data analysis period. The hypotheses were tested using SPSS and LISREL statistical software.
Chapter Nine

Results

Descriptive statistics

First, I examined the psychometric properties of the scales used in the present study. Table 1 presents the mean, standard deviation, and reliability coefficients for each variable of interest. The results showed that the reliability for all scales were above .70, except for satisfaction with working condition (.38) and equity sensitivity (.57). Because of the low reliability in the measurement of satisfaction with working conditions, this job satisfaction subscale was not included in subsequent analyses.

Table 1 - Descriptive Statistics for Variables of Interest

<table>
<thead>
<tr>
<th>Variable category</th>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>Turnover Intention</td>
<td>321</td>
<td>1.19</td>
<td>3.62</td>
<td>0.77</td>
</tr>
<tr>
<td>OCB Variables</td>
<td>Overall OCB</td>
<td>278</td>
<td>71.10</td>
<td>12.79</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness Initiative</td>
<td>278</td>
<td>15.42</td>
<td>3.24</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Courtesy</td>
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<td>18.60</td>
<td>3.87</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>Personal Support</td>
<td>278</td>
<td>18.49</td>
<td>3.48</td>
<td>0.79</td>
</tr>
<tr>
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<td>Sportsmanship</td>
<td>278</td>
<td>18.59</td>
<td>4.63</td>
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</tr>
<tr>
<td>Job Stressor Variables</td>
<td>Interpersonal Conflict At Work</td>
<td>321</td>
<td>8.78</td>
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<td>Organizational Constraints</td>
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<td></td>
<td>Quantitative Workload</td>
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<td>17.20</td>
<td>4.30</td>
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</tr>
<tr>
<td>Job Satisfaction Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Overall Job Satisfaction</td>
<td>321</td>
<td>141.07</td>
<td>27.84</td>
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</tr>
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<td>Pay</td>
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<td>13.40</td>
<td>5.17</td>
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<tr>
<td>Promotion</td>
<td>321</td>
<td>11.99</td>
<td>5.05</td>
<td>0.80</td>
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<tr>
<td>Supervisor</td>
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<td>19.68</td>
<td>4.56</td>
<td>0.83</td>
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<tr>
<td>Benefit</td>
<td>321</td>
<td>15.01</td>
<td>4.95</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>Reward</td>
<td>321</td>
<td>12.90</td>
<td>5.18</td>
<td>0.83</td>
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<tr>
<td>Condition</td>
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<td>16.05</td>
<td>3.54</td>
<td>0.38</td>
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<td>Coworkers</td>
<td>321</td>
<td>16.54</td>
<td>4.28</td>
<td>0.73</td>
<td></td>
</tr>
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<td>Work</td>
<td>321</td>
<td>20.47</td>
<td>3.24</td>
<td>0.71</td>
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<td>Communication</td>
<td>321</td>
<td>15.03</td>
<td>4.53</td>
<td>0.72</td>
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<td>Equity Sensitivity</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity Sensitivity</td>
<td>321</td>
<td>28.54</td>
<td>6.42</td>
<td>0.57</td>
<td></td>
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<tr>
<td>Justice Variables</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Organizational Justice</td>
<td>321</td>
<td>96.92</td>
<td>29.14</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td>Distributive Justice</td>
<td>321</td>
<td>24.05</td>
<td>6.75</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Procedural Justice</td>
<td>321</td>
<td>26.91</td>
<td>10.26</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>Interactional Justice</td>
<td>321</td>
<td>45.96</td>
<td>15.47</td>
<td>0.98</td>
<td></td>
</tr>
</tbody>
</table>

Next, the correlations among all the variables used in this study were calculated and are reported in Table 2.

Table 2 - Inter Variable Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Turnover Intention</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 OCB</td>
<td>-.28</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3 Job Satisfaction</td>
<td>-.59</td>
<td>.40</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Job Stressors</td>
<td>.43</td>
<td>-.30</td>
<td>-.62</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Equity Sensitivity</td>
<td>.21</td>
<td>-.31</td>
<td>.22</td>
<td>-.35</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>6 Perceived Organizational Justice</td>
<td>-.53</td>
<td>.35</td>
<td>-.53</td>
<td>.75</td>
<td>-.26</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note.* All the correlation coefficients in the table are significant.
Hypothesis 1 predicted that job stressors, equity sensitivity, and perceived organizational justice would be correlated with turnover intention. Table 2 shows that the correlations between job stressors (r = .43, p < .01), equity sensitivity (r = .21, p < .01), perceived organizational justice (r = -.53, p < .01) and turnover intention were all significant. Thus, hypothesis 1 received support.

Hypothesis 2 predicted that job stressors, equity sensitivity, and perceived organizational justice would be correlated with job satisfaction. Table 2 indicates that correlations between job stressors (r = -.62, p < .01), equity sensitivity (r = -.35, p < .01), perceived organizational justice (r = .75, p < .01) and job satisfaction were significant. Therefore, hypothesis 2 was supported.

Hypothesis 3 predicted that job stressors, equity sensitivity, and perceived organizational justice would be correlated with OCB. Table 2 showed that the correlations between job stressors (r = -.30, p < .01), equity sensitivity (r = -.31, p < .01), perceived organizational justice (r = .35, p < .01) and OCB were all significant. Thus, hypothesis 3 received support.

Table 2 also shows that job satisfaction is negatively correlated with turnover intention (r = -.59, p < .01); job satisfaction was positively correlated with OCB (r = .40, p < .01); and turnover intention was negatively correlated with OCB (r = -.28, p < .01). Therefore, hypotheses 4, 5, and 6 received support.
To test the mediation effects proposed in hypotheses 7 and 8, LISREL was used.

*Confirmatory factor analysis*

Following the procedure suggested by Raykov and Marcoulides (2000), a confirmatory factor analysis was conducted to test the measurement model. This model includes 26 observed variables (i.e., indicators) and 6 latent variables: turnover intention, job satisfaction, OCB, job stressor, equity sensitivity, and perceived organizational justice. The measurement model hypothesized that each observed variable loaded only on its respective latent variable, and these latent variables were correlated with one another. Here the primary interest is estimating the relationships between the latent variables. LISREL 8.53 (Joreskog and Sorbom, 1993) was used to evaluate the fit of the measurement model.

Researchers generally use either individual items or scale scores as indicators of latent variables. I chose a combination of individual items and subscale scores. The use of some subscale scores rather than item level scores was done because LISREL is limited in its ability to calculate model estimates with large numbers of indicators (Bentler and Chou, 1987). Also, it is difficult to fit models using more than 30 indicators (Joreskog and Sorbom, 1986). Specifically, 3 items in the turnover intention scale and 5 items in the equity sensitivity scale were considered as indicators, and 8 subscale scores for job satisfaction, 4 subscale scores for OCB, 3 subscale scores for job stressors, and 3 subscale scores for perceived organizational justice were treated as indicators.
An examination of the LISREL output indicated that the squared multiple correlation associated with the second item (“helping others”) in the equity sensitivity scale was only 0.03. That means this item did not measure well the underlying construct, with only 3% of its variance explained by the latent factor. The result makes sense because this item asks about behavior towards other individuals, while other items ask about behavior towards the organization. For the sake of parsimony, this item was deleted from the equity sensitivity scale. Compared with the original model, the $\chi^2$ for the new model without that item dropped significantly ($\Delta \chi^2_{(24)} = 57.71$, $p < .001$). Other fit statistics remained same, and they suggested the measurement model fit the data reasonably well (CFI = .93, GFI = .79, AGFI = .74, NFI = .90, RMSEA = .095).

It is ideal for GFI and AGFI to be close to 1, but according to Steiger (1990), when degrees of freedom (df) are large relative to sample size, GFI and AGFI are biased downward except when the number of parameters is very large. Also, GFI tends to be larger as sample size increases; correspondingly, AGFI may underestimate fit for small sample sizes (Bollen, 1990). For a complex model (number of indicators = 25, df = 260, and number of parameters = 65) in the current study, it is not surprised that GFI and AGFI are somewhat low. Another index critical N (CN) also indicated that the sample size was not sufficient to yield an adequate model fit. CN needs to be over 200 for a model to adequately represent the sample data (Hoelter, 1983). The value of CN in this measurement model test was only 103. Therefore, the sample size is small relative to the complexity of the model, which leads to the underestimate of GFI and AGFI.
Structural model test

Different than confirmatory factory analysis, the structural model test assumed directional relationships between latent variables. Four structural models were tested, and their fit indices were provided in Table 3. The first model was a saturated model with all the possible paths between latent variables. Based on the output from model one, the second model fixed 5 nonsignificant gamma paths from endogenous variables (job stressor, equity sensitivity, and perceived organizational justice) to exogenous variables (turnover intention and OCB). Based on the output from model two, the third model fixed one nonsignificant beta path from one exogenous variable (turnover intention) to another (OCB). The fourth model was the hypothesized model.

Table 3 - Fit Indices for Different Models

<table>
<thead>
<tr>
<th>Indices</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees of freedom (df)</td>
<td>260</td>
<td>265</td>
<td>266</td>
<td>266</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>853.31</td>
<td>855.76</td>
<td>856.06</td>
<td>859.75</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.095</td>
<td>0.093</td>
<td>0.093</td>
<td>0.093</td>
</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>0.79</td>
<td>0.79</td>
<td>0.79</td>
<td>0.79</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>0.74</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Examination of Table 3 indicated that all the fit indices were about the same across different models. Model 3 was selected to be the final model, because all the paths
in this model were significant. Figure 2 presents the final model; all numbers in the figure are standardized.

The figure shows that most, but not all, of the hypothesized links in the model were supported. As described in hypothesis 7, job stressors, equity sensitivity, and perceived organizational justice had significant influences on job satisfaction, which in turn, has a significant effect on turnover intentions. No direct paths from the endogenous variables to turnover intention were significant, and the fit of the model was not improved by including these direct paths. These results suggested all three independent variables affected turnover intention indirectly as they were completely mediated by job satisfaction. Hypothesis 7 was therefore supported.

Hypothesis 8 stated that the relationships between the job stressors, equity sensitivity, organizational justice, and OCB would be mediated by job satisfaction. This hypothesis received only partial support because equity sensitivity had a direct effect on OCB in addition to the indirect effect through job satisfaction. In other words, equity sensitivity contributed to OCB engagement, even controlling for job satisfaction, perceived justice, and job stressors. Thus, job stressors and perceived justice were fully mediated by job satisfaction when affecting OCB, but equity sensitivity was only partially mediated by job satisfaction.

Although turnover intention was significantly correlated with OCB, the path from turnover intention to OCB in the structural model test was not found to be significant.
Figure 2: Final Model
The reason for this nonsignificant path is that after controlling for the effect of job satisfaction on OCB, there is no independent effect of turnover intention on OCB. If the path from job satisfaction to OCB was fixed to be zero, then there would be a significant path from turnover intention to OCB. In other words, people who think about leaving the organization do not necessarily show less OCB.
The present study addressed three main questions: (a) How do job stressors, equity sensitivity, and perceived organizational justice influence turnover intention? (b) How do job stressors, equity sensitivity, and perceived organizational justice influence OCB? and (c) How does turnover intention influence OCB?

Regarding the first question, job satisfaction was found to be a mediator transmitting the effects of job stressors, equity sensitivity, and perceived organizational justice to turnover intention. All influences of these endogenous variables on turnover intention were indirect. To further understand the process of these variables working on turnover intention, regression analyses were conducted. Regression of turnover intention on different aspects of job satisfaction disclosed that dissatisfaction with the work itself ($\beta = -.30, p < .01$) and dissatisfaction with supervisors ($\beta = -.16, p < .05$) were the main predictors of intentions to turnover. Regression of turnover intention on job stressors revealed that interpersonal conflict at work ($\beta = .22, p < .01$) and organizational constraints ($\beta = .40, p < .01$) were valid predictors of turnover intention; quantitative workload did not receive a significant weight. This finding was consistent with that reported by Spector and Jex (1998). Regression of turnover intention on perceived
justice showed that only distributive justice ($\beta = -.34, p < .01$) predicted turnover intention; procedural justice and interactional justice did not have an impact on turnover intention for the sample used in the present study.

As to the second question, job satisfaction was found again to mediate the relationships between job stressors, equity sensitivity, perceived organizational justice and OCB, but equity sensitivity had a direct effect on OCB in addition to that explained by job satisfaction. That is to say, whether or not being satisfied with their job, people high in equity sensitivity (entitleds) exhibited less OCB than people low in equity sensitivity (benevelents). The personality trait – equity sensitivity – plays an important role in deciding the level of OCB. Job stressors and perceived justice did not have such direct effects on OCB.

Organ (1990) suggested that the relationship between job satisfaction and OCB may be better described as one reflecting the relationship between perceptions of fairness and OCB. Previous research (Moorman et al., 1993; McNeely & Meglino, 1994) found that the relationship between job satisfaction and overall OCB or the OCB towards organization became nonsignificant after controlling for the procedural justice or the reward equity and recognition. The current findings did not agree with these results. Figure 2 shows that the path from job satisfaction to OCB was significant, even controlling for job stressors, equity sensitivity, and perceived justice, but there was no significant direct path from justice to OCB. Another piece of evidence is that when both job satisfaction and equity perception (overall or individual aspects) were regressed on
OCB (both overall and OCB toward the organization, e.g., conscientiousness and sportsmanship), the effect of job satisfaction was still significant, but the effect of equity perception became nonsignificant. These results suggested that equity perception did not make a direct contribution in predicting OCB, rather through the variable, job satisfaction. One possible reason for the different results is that these earlier studies oversimplified the construct of job satisfaction by using a single item to measure overall job satisfaction (McNeely & Meglino, 1994), or only one Job Descriptive Index (JDI) subscale “satisfaction with work” (Moorman et al., 1993), whereas several facets were included in the current study.

The third question concerned the relationship between turnover intention and OCB. The data revealed that the zero order correlation between turnover intention and OCB was significant. Regression analysis showed that conscientiousness ($\beta = -.25, p < .01$) and sportmanship ($\beta = -.20, p < .05$) related negatively with the intent to leave, but courtesy and altruism did not. In other words, employees thinking about leaving the organization generally exhibit low level of OCB, especially the OCB facets towards the organization. However, when multiple relationships were tested simultaneously using structural equation modeling, turnover intention did not have a direct impact on OCB. Thus, employees do not reduce OCB because they have turnover intentions. They reduce OCB because they are not satisfied with their job or because of beliefs about being entitled. Chen et al. (1998) found that OCB was a valid predictor of actual turnover controlling for job satisfaction (one item to measure overall job satisfaction), tenure, and
turnover intention. Unfortunately, actual turnover data were not used in the current study, so this relation can not be tested here.

In sum, job stressors, equity sensitivity, and perceived organizational justice affected turnover intention and OCB through job satisfaction. Sensitivity to equity also influenced OCB independent of job satisfaction. Turnover intention did not have a direct influence on OCB.

The contribution of this study is that it examined the antecedents of turnover intention and OCB from various perspectives, and it proposed a model to test all the relationships simultaneously. The finding that perceived injustice led to turnover intention has practical value for managers in organizations. Managers are the main source for shaping employees’ equity perceptions. Managers should pay close attention to their treatment of employees, especially around creating enhanced distributive justice in the organization. Compared with redesigning the work to improve employees’ satisfaction with the work itself, training supervisors on justice issues may be an easier task.

One limitation of the present study is that turnover intention was used as an exogenous variable, and it was collected at the same time as other variables. It is therefore impossible to make causal attributions about the variables studied, although the proposed model helps somewhat in this regard. The use of actual turnover data would solve this problem. In fact, turnover data were actually collected one year after the other.
variables were measured, but the turnover rate was only 11.2%, too low to find meaningful relationships with this variable. Nonetheless, as intention to leave is the best single predictor of turnover (Carsten & Spector, 1987; Griffeth, Hom, & Gaertner, 2000; Hom & Griffeth, 1995; Steel & Ovalle, II, 1984; Tett & Meyer, 1993), the process of how different variables leading to turnover intention can still provide valuable insights about the antecedents of turnover.

Another limitation of this study is that all the participants in this study had the same job, so it is unknown whether or not the results here can be generalized to other professions or industries. Cross validation on different samples is needed. It would also be interesting for future research to include some other variables in the model, such as perceived organizational support, leader support, and personality. Present study found that only distributive justice predicted turnover intention, and procedural justice and interactional justice did not. Previous research regarding which type of organizational justice has more influence on turnover is not consistent. It seems that different aspects of organizational justice work better in different situations. Future research could search the moderator variables for the relationship between organizational justice and turnover.
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Appendices
Appendix A: Turnover Intention Scale

Response options:

1 = Extremely Disagree  
2 = Slightly Disagree  
3 = Neither Agree nor Disagree  
4 = Slightly Agree  
5 = Extremely Agree

Questions:

1. I often think of leaving the organization.
2. It is very possible that I will look for a new job next year.
3. If I could choose again, I would choose to work for the current organization.  

Appendix B: Organizational Citizenship Behavior Scale

Response options:

1 = Strongly Disagree
2 = Disagree
3 = Neither Agree nor Disagree
4 = Agree
5 = Strongly Agree

Questions:

1. Attendance at work is above the norm. (Conscientiousness initiative)
2. Tries to avoid creating problems for co-workers. (Courtesy)
3. Willingly offers to help others by teaching them necessary knowledge or skills. (Personal support)
4. Consumes a lot of time complaining about trivial matters. (Sportsmanship) R
5. Believes in giving an honest day's work for an honest day's pay. (Conscientiousness initiative)
6. Considers the impact of his/her actions on co-workers. (Courtesy)
7. Goes out of his/her way to cheer others on in times of adversity. (Personal support)
8. Tends to make mountains out of molehills. (Sportsmanship) R
9. Does not take extra breaks. (Conscientiousness initiative)
10. Takes steps to try to prevent problems with other employees. (Courtesy)
11. Is consistently courteous and tactful, even when especially busy or stressed. (Personal support)
12. Always finds fault with what the organization is doing. (Sportsmanship) R
13. Is one of my most conscientious employees. (Conscientiousness initiative)
14. Does not abuse the rights of others. (Courtesy)
15. Goes out of his/her way to help others to overcome setbacks. (Personal support)
16. Is the classic "squeaky wheel" that always needs greasing. (Sportsmanship) R
17. Is mindful of how his/her behavior affects other people's jobs. (Courtesy)
18. Is always ready to lend a helping hand to those around him/her. (Personal support)
19. Always focuses on what's wrong, rather than the positive side. (Sportsmanship) R
Appendix C: Job Stressor Survey

*Interpersonal Conflict At Work Scale (ICAWS)*

Response options:

1 = Never
2 = Rarely
3 = Sometimes
4 = Quite Often
5 = Very Often

Questions:

1. How often do you get into arguments with others at work?
2. How often do other people yell at you at work?
3. How often are people rude to you at work?
4. How often do other people do nasty things to you at work?

*Organizational Constraints Scale (OCS)*

Response options:

1 = Less than once per month or never
2 = Once or twice per month
3 = Once or twice per week
4 = Once or twice per day
5 = Several times per day

Questions:

1. Poor equipment or supplies?
2. Organizational rules and procedures?
3. Other employees?
4. Your supervisor?
5. Lack of equipment or supplies?
6. Inadequate training?
7. Interruptions by other people?
8. Lack of necessary information about what to do or how to do it?
9. Conflicting job demands?
10. Inadequate help from others?
11. Incorrect instructions?

Quantitative Workload Inventory (QWI)

Response options:

1 = Less than once per month or never
2 = Once or twice per month
3 = Once or twice per week
4 = Once or twice per day
5 = Several times per day

Questions:

1. How often does your job require you to work very fast?
2. How often does your job require you to work very hard?
3. How often does your job leave you with little time to get things done?
4. How often is there a great deal to be done?
5. How often do you have to do more work than you can do well?
Appendix D: Equity Sensitivity Scale

The five questions below ask what you would like for your relationship to be with any organization for which you might work. For each question, divide 10 points between the two answers (A or B) by giving the most points to the answer that is most like you and the fewest points to the answer that is least like you. You can, if you'd like, give 5 points to both answers. You can also give all 10 points to one answer and 0 points to the other.

In any organization I might work for…

1. It would be more important for me to…
   A. Get from the organization, or
   B. Give to the organization.

2. It would be more important for me to…
   A. Help others, or
   B. Watch out for my own good.

3. I would be more concerned about…
   A. What I receive from the organization, or
   B. What I contribute to the organization.

4. The hard work I would do should…
   A. Benefit the organization, or
   B. Benefit me.

5. My personal philosophy in dealing with the organization would be…
   A. If you don’t look out for yourself, nobody else will, or
   B. It’s better to give than receive.
Appendix E: Perceived Organizational Justice Scale

Response options:

1 = Extremely Disagree
2 = Slightly Disagree
3 = Neither Agree nor Disagree
4 = Slightly Agree
5 = Extremely Agree

Questions 1 to 5 measure distributive justice, questions 5 to 11 measure procedural justice, and questions 12 to 20 measure interactional justice.

1. My work schedule is fair.
2. I think that my level of pay is fair.
3. I consider my workload to be quite fair.
4. Overall, the rewards I receive here are quite fair.
5. I feel that my job responsibilities are fair.
6. Job decisions are made by the general manager in an unbiased manner.
7. My general manager makes sure that all employee concerns are heard before job decisions are made.
8. To make formal job decisions, my general manager collects accurate and complete information.
9. My general manager clarifies decisions and provides additional information when requested by employees.
10. All job decisions are applied consistently across all affected employees.
11. Employees are allowed to challenge or appeal job decisions made by the general manager.
12. When decisions are made about my job, the general manager treats me with kindness and consideration.
13. When decisions are made about my job, the general manager treats me with respect and dignity.
14. When decisions are made about my job, the general manager is sensitive to my personal needs.
15. When decisions are made about my job, the general manager deals with me in a truthful manner.
16. When decisions are made about my job, the general manager shows concern for my rights as an employee.
17. Concerning decisions about my job, the general manager discusses the implications of the decisions with me.
18. The general manager offers adequate justification for decisions made about my job.
19. When making decisions about my job, the general manager offers explanations that make sense to me.
20. My general manager explains very clearly any decision made about my job.
Appendix F: Job Satisfaction Survey

Response options:

1 = Disagree Very Much
2 = Disagree Moderately
3 = Disagree Slightly
4 = Agree Slightly
5 = Agree Moderately
6 = Agree Very Much

Questions:

1. I feel I am being paid a fair amount for the work I do.
2. There is really too little chance for promotion on my job. R
3. My supervisor is quite competent in doing his/her job.
4. I am not satisfied with the benefits I receive. R
5. When I do a good job, I receive the recognition for it that I should receive.
6. Many of our rules and procedures make doing a good job difficult. R
7. I like the people I work with.
8. I sometimes feel my job is meaningless. R
9. Communications seem good within this organization.
10. Raises are too few and far between. R
11. Those who do well on the job stand a fair chance of being promoted.
12. My supervisor is unfair to me. R
13. The benefits we receive are as good as most other organizations offer.
14. I do not feel that the work I do is appreciated. R
15. My efforts to do a good job are seldom blocked by red tape.
16. I find I have to work harder at my job because of the incompetence of people I work with. R
17. I like doing the things I do at work.
18. The goals of this organization are not clear to me. R
19. I feel unappreciated by the organization when I think about what they pay me. R
20. People get ahead as fast here as they do in other places.
21. My supervisor shows too little interest in the feelings of subordinates. R
22. The benefit package we have is equitable.
23. There are few rewards for those who work here. R
24. I have too much to do at work. R
25. I enjoy my coworkers.
26. I often feel that I do not know what is going on within the organization. R
27. I feel a sense of pride in doing my job.
28. I feel satisfied with my chances for salary increases.
29. There are benefits we do not have which we should have. R
30. I like my supervisor.
31. I have too much paperwork. R
32. I don't feel my efforts are rewarded the way they should be. R
33. I am satisfied with my chances for promotion.
34. There is too much bickering and fighting at work. R
35. My job is enjoyable.
36. Work assignments are not fully explained. R
To: All City of Coral Gables Emergency Communications Specialists

RE: Emergency Dispatch Diagnostic Inventory (EDDI)

Thank you for agreeing to participate in the Emergency Dispatch Diagnostic Inventory (EDDI). It is an inventory that takes a large scale measure of several key aspects of the individual, the organization, the job, the organizational culture and the interpersonal relationships within the workplace. Completion of the survey should take approximately 30-45 minutes.

Since the online EDDI is web based, you will need a username and password to access the system. Your username and password have been provided on the accompanying page. Please retain this until you have completed the entire survey. Your agency may have already set up your computer to the EDDI login web page, but if not, go to http://www.lakelandgov.net/survey/login.asp to access the survey. Enter your login information. Once you are in, click on the Surveys tab and then on the EDDI.

Please note that in order to collect accurate data, usernames and passwords have been randomly selected to protect your identity. It is imperative that you answer these questions as truthfully as you can. The information you provide will remain in the strictest confidence. Only the survey administrator at the City of Lakeland will have access to individual responses and identities, and these WILL NOT be shared with your supervisor or with any other City of Coral Gables personnel. When all data is collected and analyzed, we will share the results of the study as a whole with all participating agencies.

We ask that you please sign below to indicate that you agree with and understand the purpose of this study. Once you have signed this consent form, please return it to Alina Suarez to be mailed to the City of Lakeland. Thank you for your participation. The information you provide is very important and we greatly appreciate your time and effort in completing this survey.

__________________________________________________________
(Your Name)                                          (Today’s Date)
Thank you,
Lebsica Gonzalez
Career Development Specialist
Assessment Services
City of Lakeland
Appendix H: Potential Rating Biases

As diligent as one may be in the pursuit of objectivity, the potential for rater bias is always present. In an effort to attain the highest degree of objectivity, it would be wise to take a few moments to examine some common threats to objectivity.

**Leniency Error** – This is the tendency to give people the benefit of the doubt, or to be an “easy” rater. The leniency effect occurs when a rater is reluctant to unfavorably rate an employee. While this may be kind, leniency error is not a true representation of an employee’s performance.

**Severity Error** – This is the opposite of leniency error. This occurs when a rater is unwilling to issue a favorable rating to a deserving employee and instead assigns more than the usual number of low ratings and can suggest either an unusually harsh standard or failure to appropriately observe the behaviors demonstrated by the employees.

**Central Tendency Error** – This occurs when a rater rates all performance at the middle of the scale (on a 5 point scale, 3 would most often be used), and is reluctant to identify a performance as outstanding or unsatisfactory. This is the desire to “play it safe” or avoid giving extreme ratings. Sometimes raters fail to assign a “0” or “5” on the assumption that “nobody could be that bad or good.” However, it is very important to make distinctions among participants and the full use of the rating scale is the most reliable way of achieving these distinctions.

**Contrast Effect** – It has been found that if a rater evaluates an employee who is just average after evaluating three or four very unfavorable employees in a row, the average employee tends to be evaluated very favorably. Conversely, an average employee may be evaluated less favorably after several very favorable employees have been evaluated. Raters tend to use other employees as a standard when evaluating more than one employee at a time.

**Halo Effect** – This is the tendency of a rater to allow the good or bad performance of one area of the employee’s work to influence the rating of another area. To achieve an accurate assessment of an individual, raters should consider the question that is being asked without taking into consideration other areas of the employee’s performance. The rating you provide should correspond only to the performance of that individual for that particular question.

**Similar-to-me-Bias** – This bias occurs when an employee is judged more favorably because he/she exhibits behaviors, which have much in common with the rater. Some
individuals will remind you of your own approach to situations and it is tempting to award high ratings, even when the exhibited behaviors may not be worthy of these high ratings. Although you may tend to like employees who appear most like yourself, it is important to judge them on the identified job-related desired behaviors.

**Negative Information** – There is a tendency to pay more attention to negative information than to positive information. As a result, an employee that mostly demonstrated very appropriate behaviors may receive lower ratings on these behaviors due to a single deficiency.

**First Impressions Effect** – This is closely related to the Halo Effect. Sometimes an employee does very well right at the beginning of his/her term of employment and then “runs out of gas.” The rater observing this individual may become so impressed with his/her early performance that high ratings are given based on the performance exhibited early on, instead of the overall performance of this employee.

**Physical Attractiveness** – Remember, more attractive employees are not necessarily more qualified for the job. Being human means having preferences, both positive and negative. Our interpretations and perceptions assist us in everyday living and make us the individuals that we are. However, in an effort to accurately assess the performance of each employee, as well as to give an accurate rating, each rater must make every effort to put aside his/her biases and judge each employee objectively and according to stated criteria. Remaining sensitive to how these rating errors can unfairly influence your evaluation of an individual’s performance will help avoid their occurrence or at least reduce their impact.
About the Author

Yufan Liu received her BS degree in Psychology from Beijing Normal University in 1997, and MS degree in Industrial/Organizational Psychology from Institute of Psychology, Chinese Academy of Sciences in 2000. She is currently a Ph.D. candidate at University of South Florida. Her research interests include turnover, job satisfaction, organizational citizenship behavior, job stress, equity sensitivity, perceived organizational justice, personality, leadership, and performance appraisal.