

Running Head: TURNOVER INTENTIONS

Turnover in the military: Impact of workplace stressors

Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of  
Science in Applied Psychology (Industrial/Organizational)

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## Abstract

## Turnover in the military: Impact of workplace stressors

Marie E. Norris, May 2004

In times of labour shortages, it is essential for organizations to develop an understanding of the reasons employees are leaving if they are to make prudent policy decisions to reduce voluntary turnover. The Canadian military is interested in developing a comprehensive appreciation of why employees are leaving. Voluntary turnover carries with it the loss of experience and expertise, and impact on operations. There were 3 main goals in this study: (1) to assess the relationships of role stressors with job satisfaction and turnover intentions; (2) to examine whether changes in organizational image/values and feelings toward recruiting incentives explain incremental variance in job satisfaction and turnover intentions beyond the traditional role stressors; and (3) to assess the possible moderating effects of several organizational level factors (i.e., organizational commitment, perceived organizational support, and voice) on the relationship of workplace stressors with job satisfaction and turnover intentions. Participants, who completed the Canadian Forces Retention Questionnaire, were 2,748 members of the Canadian Forces (CF) in 14 occupations, specifically targeted due to recent issues related to retention and recruitment. After controlling for age, role stressors were significant unique predictors of job satisfaction and both measures of turnover intentions, attitudes towards changes in organizational image/values and feelings toward recruiting incentives explained incremental variance in the outcome variables. There was no evidence for a strong moderator effect of organizational commitment, perceived organizational support and voice on the relationship between workplace stressors and job satisfaction and turnover intentions. This study contributes to the understanding of the complexity of the antecedents of job satisfaction and turnover intentions by considering the role of non-traditional stressors. Most importantly, attitudes toward changes in organizational values and feelings toward recruiting incentives provided significant unique prediction. These findings emphasize the importance of considering the impact on existing employees when implementing new programs or changing existing policy with respect to job satisfaction and intentions to leave the organization.



## Turnover in the military: Impact of workplace stressors

### *Introduction*

Organizational-downsizing throughout the 1990s essentially weakened employee loyalty and trust in management and their respective organizations (Rynes & Cable, 2003). Subsequently, as labour markets have turned around to favour job seekers, employers unexpectedly found themselves in the unenviable position of trying to attract the best employees from fewer applicants (Rynes & Cable, 2003) while endeavouring to retain current employees. This turn in the labour market has reinforced the importance of continued research not only in effective recruitment but also in employee retention. Although the issue of recruitment is always important, it is even more crucial that employers develop an understanding of the reasons employees are leaving in times of labour shortages to assist them in making prudent policy decisions to reduce turnover in their organizations. The Canadian military is interested in developing a clear conception of why employees are leaving, because the loss of experience and expertise in occupations, particularly in occupations that require lengthy training periods, are costly. Depending on the military occupation, fully training new members can take two to seven years of training (Mason, 2002). Replacements must be hired several years prior to the departure of a trained employee if the organization is to continue its operational mandate. This example clearly illustrates the necessity of understanding why individuals are leaving the organization. Therefore, the purpose of the current study is to examine the organizational and job factors that contribute to employee turnover.

### *Turnover*

Extensive research has determined the antecedents of voluntary turnover (Carsten & Spector, 1987; Griffeth, Hom & Gaertner, 2000; Hom & Griffeth, 1995; Steel & Ovalle, 1984; Tett & Meyer, 1993). Vroom (1964) found consistent evidence that job satisfaction is negatively related to the probability of an employee voluntarily leaving the organization. Vroom (1964) surmised that employees who are highly engaged and satisfied in their work are more likely to remain and exhibit favourable behaviours to ensure continued employment. It is an over-simplification, however, to assume that job satisfaction would neatly predict turnover without due consideration to the many other factors that influence employees' decisions to either stay or terminate employment. As reported in a recent meta-analysis, although job satisfaction is the best predictor of turnover intentions, it only garners modest predictive ability ( $\rho = -.19$ ) and should not be considered in the absence of other work factors (Griffeth et al., 2000).

### *Models of Turnover*

There are several models of turnover. As described by Rusbult and Farrell (1983), the crux of turnover theories rests in the psychological experiences and other employment or career options that individuals encounter as they either withdraw from an organization or remain within it. March and Simon (1958) developed a theory based on equilibrium between an organization and the employees. Organizations provide inducements that are repaid by the contributions of employees. When the organizational inducements and individual contributions are balanced, employees will want to remain with the organization; this equalization results in job satisfaction, which in turn leads to wanting to remain with the organization. Key to this theory are the concepts of favourable

perceptions of desirability of movement, possibility of intra-organizational transfer, and ease of movement. Although March and Simon's (1985) model may be an oversimplification, it has influenced current models of turnover (Hom & Griffeth, 1995). Price (1977) believed that turnover and satisfaction vary independently of each other; that is, other factors play important roles in determining turnover. He introduced sociological variables that described organizational conditions to extend March and Simon's (1958) model. Essentially, Price's model stated that dissatisfaction resulted in turnover when there was increased opportunity for alternative employment options. Subsequently, this theory was broadened (Price-Mueller, 1981, 1986); however, these expanded models were found to be less parsimonious than those introduced by other researchers. An additional criticism of the Price-Mueller model was that it has only been validated using a nurse sample; therefore, the generalizability of the theory is questionable (Hom & Griffeth, 1995).

Mobley (1977) introduced the concept of cognitive and behavioural processes that moved research of turnover beyond the satisfaction-turnover models. His model suggested that there are intermediate links between the two processes, such as ideations of quitting, search evaluations and behaviour, evaluation of alternatives, development of quit intentions, then ultimately leaving, which is essentially the withdrawal process. According to Hom and Griffeth (1995), Mobley's contribution to turnover research has permeated current models, influencing the development of alternative models and adjusting Mobley's constructs to reflect current research. Rusbult and Farrell (1983) considered Mobley's withdrawal processes in the development of their investment model. Job satisfaction increased when there are high rewards and low costs in the job, whereas

job commitment increased under the conditions of high rewards, low costs, a dearth of quality alternatives, and job investment was large (Rusbult & Farrell, 1983). Mobley (1982) suggested four primary determinants of intention to turnover and ensuing turnover: (1) job satisfaction-dissatisfaction; (2) expected utility of alternative work roles within the organization; (3) expected utility of work roles in another organization; and, (4) individual non-work values and contingencies. Furthermore, he stressed the importance of looking beyond current measures of employee job satisfaction because these measures do not capture employee expectations and evaluations of the future (Mobley, 1982).

Hom and Griffeth (1995) carefully developed their model of turnover through a comprehensive examination and testing of the pathways leading to turnover. Central to this model is the proposition that negative attitudes toward the organization fuel the processes that lead to turnover, with satisfaction and commitment being primary affective states that prompt withdrawal cognitions. Their research allowed them to distinguish a number of antecedents for satisfaction, including job complexity, role stress, group cohesion, compensation, leader-member exchange, met expectations, and negative affectivity. As well, there are several antecedents for commitment, such as procedural justice, expected utility of internal roles, employment security, job investments, extra-organizational loyalties, time and behaviour conflicts, and initial job choices. Criticisms of the Hom-Griffeth model arise from the fact that supporting empirical studies primarily used nurses as sample populations (Hom & Kinicki, 2001). The use of this population is problematic because many studies have shown that the pattern of turnover in nursing differs from other fields. Thus, the model may misrepresent how individuals in other

occupations change jobs (Hom & Kinicki, 2001). Hom and Kinicki (2001) used retail store personnel in a national survey to validate the Hom-Griffeth model; the model generalized to this population, lending additional credibility to the theory.

#### *Antecedents of Turnover*

Several meta-analytic studies have examined turnover relationships with respect to antecedent factors that may predict member's plans to leave an organization. Intentions to turnover were more predictive of attrition than overall job satisfaction, work satisfaction or organizational commitment (Steel & Ovalle, 1984). This meta-analysis also demonstrated significant differences between military and civilian populations on all attitudinal predictor variables, providing support for additional research using turnover intentions as a proxy measure for actual turnover, as well as support for validity testing of theoretical models with a military population when the initial validation process used civilian populations to ensure generalizability.

A second meta-analysis by Tett and Meyer (1993) examined 178 independent samples from 155 studies. Satisfaction and commitment contributed independently to the prediction of turnover intentions and withdrawal cognitions. Satisfaction was a stronger predictor of turnover intentions and withdrawal cognitions than the predictive ability of commitment. Turnover intentions and withdrawal cognitions mediated most of the attitudinal linkage with attrition. Tett and Meyer (1993) also found that the results were largely dependent on the types of measurements used, which may explain discrepancies in results over various turnover studies. That is, the relationship between attitudes and turnover varied with the use of single-item versus multi-item scales, 9-item versus 15-item commitment scale, and turnover intention versus withdrawal cognition scales. The

differential results observed in this research points to the need for further investigation into the antecedents of turnover. Tett and Meyer's (1993) study is based on a civilian sample; they eliminated military studies from their analysis because previous meta-analyses indicated that the turnover process differs between military and civilian settings. They wanted to avoid bias due to unbalanced moderator distributions because the differences found in previous research could mask significant effects in one population or the other when analyzed simultaneously. These inconsistent results due to psychometric factors and differences in military and civilian samples provide added impetus to continue studying turnover using a military sample to enable a comprehensive understanding of the turnover process within this setting.

Fuller, Hester, Dickson, Allison, and Birdseye (1996) conducted an additional meta-analysis to examine the relationship between job satisfaction and withdrawal cognitions. Among other findings, they assessed the moderator effects of context, in either civilian or military settings. Context moderated job satisfaction ( $Z = 2.33$ ). Sager, Griffeth, and Hom (1998) also found contextual differences. Employees in certain occupational groups (e.g., nurses, salespeople) that had positive labour markets often quit prior to searching for alternative work, which contradicts most turnover models that hypothesize that employees conduct job searches and obtain subsequent employment prior to leaving their current jobs. These findings provide support for the notion that the pattern of withdrawal is not the same for all occupations and contexts. Additional research is required to enhance the understanding of turnover (Fuller et al., 1996; Sager et al., 1998).

Griffeth et al.'s (2000) meta-analysis examined the antecedents and correlates of turnover in order to update the current knowledge, test for moderators, and determine future research requirements. There was little or no change in effect sizes for personal characteristics, satisfaction with overall job, and job facets, dimensions of work experience, external environment factors, behavioural predictors, and cognitions of the withdrawal process over previous meta-analytic studies. Turnover intentions remained the best predictor of actual turnover ( $\rho = .38$ ); (Griffeth et al., 2000). More remote determinants of turnover (job content, stress, work group cohesion, autonomy, leadership, distributive justice, and promotion opportunities) had small to moderate effect sizes. Tests for moderators, however, only examined those moderators previously documented in past meta-analyses. That is, Griffeth et al. only tested moderators that were demographic in nature (age, gender, tenure, and occupation) or were psychometric characteristics (scale reliability, number of scale items, and specific scale used). They also tested a third set of moderators selected on methodological characteristics, such as size of sample, turnover base rate, and lag time to actual turnover (Griffeth et al., 2000). The meta-analysis suggested that future research consider the following moderating effects: (1) how the rate of turnover influences predictor-quit relationships; (2) quit rates between women and men; (3) how collective reward systems prompt exits in high performers; (4) how the quality of the measuring scale affects the resultant commitment-turnover association; and (5) issues related to the type of sample (i.e., military versus non-military). In military samples, the intention to turnover and actual turnover relationship is stronger, more stable, and more predictable ( $\rho = .46$ ) than the non-military samples ( $\rho = .34$ ) (Griffeth et al., 2000). There is a need to determine the roles played by

distal factors in the relationship with turnover intentions. It is also clear that, although moderator relationships have to be studied, moderator effects that have been studied are generally demographic, contextual, and psychometric in nature. There is a need to consider moderator relationships of organizational-level factors that influence the effects of these antecedents, including workplace stressors, identified as distal antecedents to turnover in the previous meta-analyses, their direct relationship to turnover intentions, and the possible moderating role of organizational level work-related factors.

#### *Traditional Work Stressors*

Stressors tend to lead to an increase in employee turnover (Carsten & Spector, 1987; Griffeth et al., 2000; Hom & Griffeth, 1995; Steel & Ovalle, 1984; Tett & Meyer, 1993). Generally, the concept of work stress is considered through social role theory (Jones, Flynn, & Kelloway, 1995), which is described as a social-psychological model of work stress. This model takes into account the individual's subjective perceptions of events in conjunction with the objective conditions of the individual's circumstances in the workplace. Furthermore, the theory presumes that employees act out distinctive roles in which they perform tasks in ways that are primarily specified by the culture of the organization or by the subculture of their specific work groups. Consequently, some type of stress reaction is seen as a predictable outcome for individuals engaging in the various roles inherent in a complex organization.

Osipow and Spokane (1984) stated that significant sources of problems in the workplace are role stressors. They described five specific social role stressors: role overload, role insufficiency, role ambiguity, role boundary (or conflict), and



role responsibility. Role overload describes the situation when job demands exceed both personal and organizational resources and the extent to which the incumbent can meet the expected demands (Osipow & Spokane, 1984). Role insufficiency is the degree to which there is congruence between the incumbents' training, education, skills, and experience with what is required for the actual job (Osipow & Spokane, 1984). Role ambiguity describes the extent to which priorities, expectations, and evaluations of the job are clear to the employee (Osipow & Spokane, 1984). Role boundary, also known as role conflict, is explained by the experience of conflicting demands and loyalties in the workplace. Finally, Osipow and Spokane (1984) described role responsibility as the extent to which one is responsible for the well-being, safety, and performance of subordinates. Jones et al. (1995) surmised in their research that there tends to be a negative correlation between work stress and both satisfaction and commitment; however, there is little empirical evidence to make causal statements regarding this relationship.

Netemeyer, Johnston, and Burton (1990) suggested that role stressors, particularly role conflict and ambiguity, influence turnover intentions of employees in different types of jobs in distinctive ways, and that the effects of role stressors on turnover vary. Role conflict and role ambiguity were associated with increased turnover intentions indirectly through job satisfaction (Netemeyer et al., 1990). The notion that the effects of role stressors on turnover intentions are expressed differently with varying job types was extended to include various dispositional characteristics. Perceived control, but not need for clarity, moderated the detrimental consequences of role stressors, ambiguity and conflict, on job

satisfaction and psychological strain (O'Driscoll & Beehr, 2000). Diminished levels of job satisfaction and higher levels of psychological strain were related to high scores on need for clarity. O'Driscoll and Beehr's (2000) study illustrates the moderating relationship of factors influencing individual perceptions between role stressors and job satisfaction, and provides evidence of the need to broaden the study of turnover to include other moderating factors that may affect this relationship.

Kemery, Mossholder, and Bedeian (1986) stated that role-based stress not only has a detrimental effect on job outcomes, but also costs industries \$75 to \$90 billion (US) annually. They found a direct relationship between both role conflict and role ambiguity on both job satisfaction and physical symptomatology, which in turn were directly related to turnover intentions. Research studies that used the role stressors of conflict and ambiguity, also found that job stress is an important predictor of job outcomes, such as job satisfaction, commitment, job strain, alienation, and turnover intentions (Bhagat, McQuaid, Lindholm, & Segovis, 1985; O'Driscoll & Beehr, 1994). The majority of reviewed studies of role stressors tend to use merely role conflict and role ambiguity as variables to assess the relationships to job satisfaction and turnover intentions. The implications of these studies suggest that research is required using other role stressors as well as additional workplace stressors in assessing the relationships involved with turnover. In addition, more research is required to identify moderating factors in various job types because it is clear that the individual effects of role stressors vary greatly.

With the existence of role stressors in the organization, individuals working under conditions of high stressors should experience the aversive effects of these stressors, which will be associated with decreased job satisfaction, and an increased tendency to withdraw from the organization.

*Hypothesis 1(a): There is a direct negative relationship between role stressors and job satisfaction.*

*Hypothesis 1(b): There is a direct positive relationship between role stressors and turnover intentions.*

#### *Non-traditional Stressors*

*Attitudes towards changes in organizational values.* The link between workplace stressors and turnover is well established; however, this research tends to focus on role stressors and virtually ignores other organizational factors that may contribute to individual stress and lead to turnover. Organizational change, which is often met with resistance, contributes to employee stress, which takes the form of increased lateness, absenteeism, resignations, loss in employee motivation, lower morale, and increases in error and accident rates (Hellriegel, Slocum, & Woodman, 1995). Changes in organizational image and values that are incongruent with an employee's may lead to increased stress levels and, consequently, turnover (Judge & Bretz, 1992; O'Reilly, Chatman, & Caldwell, 1991; Sheridan, 1992). Although the organizational culture literature has emphasized the importance of aligning employee and organizational values, attitudes toward changes in organizational values have generally not been studied as a potential stressor. If employees perceive changes in organizational values and image, the contribution of the resultant stress could result in dissatisfaction and intent to turnover.

*Recruiting Incentives.* Inequitable distribution of rewards is also a potential organizational stressor that has an impact on the emotional well-being (stress level) of employees. Distributive justice predicts a variety of attitudinal (commitment, satisfaction, trust) and behavioural (performance, work withdrawal) outcomes, in addition to causing emotional reactions (Weiss, Suckow, & Cropanzano, 1999). New hires are increasingly being offered large signing bonuses or recruiting incentives, stock options, and salaries that sometimes far exceed the salaries and benefits of current employees with many years of experience (Rynes & Cable, 2003). In the case of the Canadian military, new hires in certain occupations are being offered large signing bonuses and early promotions to pay levels that normally require years of service. Very little, if any, research has examined the impact of these new practices on existing employees who are non-recipients of the rewards.

Based on what is known of the distributive justice literature, the negative reactions to injustices may have adverse consequences (Zohar, 1995). For example, negative reactions to affirmative action policies, which are often perceived as unfair, are associated with negative outcomes for both the advantaged and disadvantaged individuals (Rynes & Cable, 2003). Non-beneficiaries of the policies have reported reductions in their enthusiasm for the work and in the organization's attractiveness, as well as a decline in their pro-social behaviours (Heilman, McCullough, & Gilbert, 1996; Truxillo & Bauer, 1999). Additionally, Weiss et al. (1999) found that when individuals perceived an outcome as unfair, they often reacted with anger. Thus, similar reactions to recruiting incentives may occur in those employees who are not beneficiaries to recruiting incentive initiatives.

*Hypothesis 2: Attitudes toward changes in organizational image and negative emotional reactions to recruiting incentives will add significant incremental variance in job satisfaction and turnover intentions after controlling for traditional role stressors.*

### *Moderating Factors*

The direct relationships of workplace stressors with job satisfaction and turnover intentions may be moderated by various attitudes toward the organization. Workplace stressors do not always result in negative outcomes; intervening factors may alleviate some of the negative impact of the stressors (Lazarus & Folkman, 1984). For example, given a certain level of stressor, individuals' greater propensity to leave the organization may be dependent on their level of organizational commitment, perceived organizational support, and having their concerns heard by the organization.

*Organizational Commitment.* Organizational commitment reflects the extent to which individuals identify with, are involved in, and are unwilling to leave their organization (Allen & Meyer, 1990). Allen and Meyer conceptualized commitment as being composed of three factors. With *affective commitment*, individuals stay with an organization because they are emotionally attached to the organization and identify with it. That is, employees stay because they want to be associated with the organization. In the case of *continuance commitment*, individuals stay with an organization because they recognize or perceive that few alternatives exist or because of their investment of time and effort into the organization. Given the right circumstances or opportunity, these individuals would gladly change organizations. Alternatively, *normative commitment* develops either through familial or cultural influences, through prior socialization experiences, and is based on loyalty; that is, individuals stay because they feel they should (Allen & Meyer, 1996). Normative commitment can be increased through

organizational experiences that provide employees with “more than they can easily reciprocate” (Allen & Meyer, 1996, p. 264).

Work experience variables are the antecedents of commitment; each type of commitment is expected to develop from different experiences (Allen & Meyer, 1996). In Allen and Meyer’s meta-analysis, affective commitment correlated with “psychologically comfortable” characteristics, such as the equitable treatment of employees and those job characteristics that enhance a worker’s sense of competence. Continuance commitment is not related to poor work experiences (Allen & Meyer, 1996); however, very little research on turnover examined this form of commitment. Normative commitment correlated with work experiences, although less significantly than the relationships found with affective commitment. The effects of workplace stressors should be moderated by organizational commitment. That is, individuals experiencing high levels of workplace stressors and having low organizational commitment will experience decreased levels of job satisfaction and will have greater intentions of leaving the organization than individuals who have high organizational commitment. Conversely, individuals experiencing low levels of workplace stressors will have greater levels of job satisfaction and fewer intentions to leave the organization, even in cases where the individuals have low levels of commitment. Due to the differences of workplace experiences in influencing the various types of commitment, there should be variability in the strength of the associations between each type of commitment, job satisfaction and turnover intentions.

*Hypothesis 3: Affective, Continuance, and Normative Commitment will moderate the relationship of workplace stressors with job satisfaction and turnover intentions.*

*Perceived Organizational Support (POS)*. Perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986) is a belief held by individuals that an organization values their contributions and cares about their well being. POS is based on the norm of reciprocity from social exchange theory (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). The norm of reciprocity is a basic principle of social relationships: if individuals receive favourable treatment from another party, they feel an obligation to respond by reciprocating the favourable treatment (Eisenberger et al., 2001; Lynch, Eisenberger, & Armeli, 1999). POS has been examined extensively as a mediator of various factors and affective organizational commitment (Eisenberger et al., 2001; Moideenkutty, Blau, Kumar, & Nalakath, 2001; Rhoades, Eisenberger, & Armeli, 2001; Wayne, Shore, & Linden, 1997). POS mediates relationships between such factors as procedural justice and organizational citizenship behaviour, developmental experiences and promotions and affective commitment. When there is a supportive atmosphere in the workplace, it creates an environment that is conducive to goal achievement, increased satisfaction, and reduced stress (Cropanzano, Howes, Grandey, & Toth, 1997). Individuals who have social support report less stress and anxiety, and greater life satisfaction (Cropanzano et al., 1997). This relationship may extend to a supportive organization. Organizational support, or a lack thereof, predicts work stress: when individuals perceive a supportive environment they report less intensive stress levels (Cropanzano et al., 1997; Jones et al., 1995). Notwithstanding these findings, it is important to note that in the Jones et al. study the construct of work stress was limited to role ambiguity and role conflict stressors and did not include other workplace stressors.

Nevertheless, it is anticipated that the relationship between perceived support and other workplace stressors should lead to similar consequences.

Dobrevá-Martinová, Villeneuve, Strickland, and Matheson (2002) also considered the moderating effects of POS on the relationship between role stressors and both individual and organizational well-being. Although no moderating effect was found, there were only moderate levels of role stress reported by participants, thus attenuating the effects of supportive resources. However, their findings did indicate that POS had a significant impact on participants' stimulated emotional attachment, increased job satisfaction, and reduced individual strain (Dobrevá-Martinová et al., 2002). Jones et al. (1995) deemed POS as a necessary factor in developing a comprehensive theory of organizational behaviour that includes work stress, attitudes, loyalty, and productivity. Moderating effects of POS on the relationship of workplace stressors with job satisfaction and turnover intentions must be examined to expand our knowledge of this construct. Under conditions of high stress, those who perceive high levels of organizational support should be less likely to be dissatisfied or intend to turnover than those who believe there is little organizational support.

*Hypothesis 4: Perceived organizational support will moderate the relationship of workplace stressors with job satisfaction and turnover intentions.*

*Voice.* "Voice" involves appeals to higher authorities in attempts to alter job situations that are unfavourable (Farrell, 1983). Although many researchers do not consider the aspect of actually being heard, other researchers have found this dimension to be important (Klammer, Skarlicki, & Barclay, 2002; Shapiro, 1993). Klammer et al. (2002) defined voice with respect to the availability of organizational procedures for use by employees as a means of expressing their views and as an enabler for these individuals



to participate in the decision-making processes of the organization. The value of voice is a consequence of the extent to which individuals believe that their views, concerns, and suggestions are taken into consideration during the decision-making process (Klammer et al., 2002; Shapiro, 1993). The ability of employees to express their ideas in this process increases their beliefs in the existence of a social contract between themselves and the organization, which engenders positive feelings of being valued, respected, and treated with dignity (Klammer et al., 2002). Thus, the extent to which employees are able to use “voice” in the organization should moderate the relationship of workplace stressors with job satisfaction and turnover intentions, such that in situations where workplace stressors are high and employees believe they have voice, they will have greater job satisfaction and fewer turnover intentions than employees who do not believe they have voice in the organization.

*Hypothesis 5: Voice will moderate the relationship of workplace stressors with job satisfaction and turnover intentions.*

#### *Job Satisfaction as Mediator*

Notwithstanding the expected direct relationship that workplace stressors have on job satisfaction and turnover intentions, research has demonstrated that job satisfaction is the best predictor of turnover intentions (e.g., Carsten & Spector, 1987; Griffeth et al., 2000; Hom & Griffeth, 1995; Mobley, 1977; Price, 1977; Tett & Meyer, 1993).

Therefore, it can be surmised that job satisfaction may mediate the relationship between workplace stressors and turnover intentions, as well as the relationship between the moderator variables (organizational commitment, perceived organizational support and voice) and turnover intentions. That is, when job satisfaction is controlled for, the effects of workplace stressors on turnover intentions will be significantly reduced. In addition,

when the effect of job satisfaction is controlled for, the effects of the combined moderator variables on turnover intentions will be significantly reduced.

*Hypothesis 6: Job satisfaction will mediate the relationship between workplace stressors and the moderator variables (organizational commitment, POS, voice) with turnover intentions.*

### *Summary*

There are significant differences in the pattern of results for turnover intentions between military and non-military samples (Griffeth et al., 2000; Steel & Ovalle, 1984). More research using a military population is needed to examine the relationships between the antecedents of turnover and turnover intentions. Very little research has considered workplace stressors beyond role conflict and role ambiguity to assess the relationship of stress and turnover (Kemery et al., 1986; Netemeyer et al., 1990; O'Driscoll & Beehr, 2000). The purpose of the current study is to advance the understanding of the stress – turnover relationship by considering four role stressors in conjunction with stress related to changes in organizational values and perceptions of unfairness, as measured by feelings towards recruiting incentives. Few studies have considered organizational-level factors as moderators of workplace stressors and turnover intentions. Turnover studies that have considered moderating relationships have generally been limited to psychometric, demographic, and contextual variables (Griffeth et al., 2000). This study, therefore, also examines turnover models by focusing on the antecedents (i.e., workplace stressors) of known relationships that lead to turnover intentions and job satisfaction (Griffeth et al., 2000; Price, 1977). It further examines factors that may mitigate these relationships and that are controllable by organizations, to possibly avert some unnecessary voluntary turnover.

There are three goals of this study: (1) to assess the relationships of role stressors with job satisfaction and turnover intentions; (2) to determine if changes in organizational image and feelings toward recruiting incentives explain incremental variance in job satisfaction and turnover intentions beyond variance explained by the traditional role stressors; and (3) to assess the possible moderating effects of several organizational level factors (i.e., organizational commitment, perceived organizational support, and voice) on the relationship of workplace stressors with job satisfaction and turnover intentions. Subsequently, the relationship between the workplace stressors and moderator variables and turnover intentions will be assessed to determine if job satisfaction functions as a mediator.

## Method

### *Participants*

Surveys were sent to 6,000 Regular Force members of the Canadian Forces (CF) who held jobs in 14 military occupations. The response rate was 45.8%, which equates to 2,748 participants in the current study. Eighty participants (2.9%) indicated that they were being released from the CF, 61.1% considered leaving within the next five years, and 35.3% had no plans to leave the organization.

The participants served across Canada in each element (i.e., army, navy and air force) of the CF. The occupational groups consisted of: 7.8% Signal Operators; 2.3% Tactical Acoustic Sensor Operators; 13.7% Avionic Technicians; 3.2% Aircraft Structures Technicians; 1.3% Electrical Generation Systems Technicians; 22.1% Resource Management Support Clerks; 2.4% Engineers; 4.7% Aerospace Engineers; 11.9% Maritime Resources Engineers; 2.0% Electrical and Mechanical Engineers; 5.9%

Communication and Electronic Engineers; 2.9% Airfield Engineers; 14.0% Logistics Officers; 3.1% Military Police Officers; and, 2.9% did not specify.

The group consisted of 72 % Anglophones and 27.1% Francophones. The majority of the participants were male (81.9%), which is fairly representative of the CF, in which women comprise only 11% of the regular force component (Ritchie, 2001). The average age of the participants was 39.05 years ( $SD = 5.63$ ), and 81.4% of the sample was married.

The survey was administered to regular force members at each rank level and the final sample consisted of 25.3% junior non-commissioned members (i.e., privates, corporals, and master corporals), 25.8% senior non-commissioned members (i.e., sergeants, warrant officers, master warrant officers, and chief warrant officers), 27.2% junior officers (i.e., officer cadets, second lieutenants, lieutenants and captains), and 20.7% senior officers (majors and above). The average length of service was 18 years. Most participants (89.7%) possessed a minimum high school diploma. Additionally, 24.1% had a college diploma, 27.5% earned a Bachelor degree, and 11% completed a graduate degree.

### *Procedures*

In the fall of 2002, the Directorate of Military Employment Policy solicited all members of the 14 targeted occupation groups to participate in the Canadian Forces Retention Questionnaire ("the survey"). The survey had previously been granted ethical approval by both the research ethics committees of the Canadian Forces and that of the University of Quebec. In addition, ethics approval was received for this research at St. Mary's University (see Appendix A). The survey was administered in electronic format

and posted on the Canadian Forces Chief of the Maritime Staff Intranet web page.

Initially, members of the targeted occupations received an e-mail message to solicit their participation in the survey (see Appendix B). The e-mail instructed participants to read the attached letter from their appropriate command or branch head that explained the purpose of the survey and authorized members to complete the survey during regular working hours (see Appendix C). The e-mail also provided the participants with instructions on how to access, complete, and submit the survey. Additionally, the participants were assured that their responses were completely anonymous and that at no time would their name or e-mail address be linked their responses. Anonymity was possible because identifying information would be removed from the e-mail by a third party, who then forwarded the anonymous surveys to the researchers.

The e-mail contained hyperlinks to both the French and English web sites to enable participants to complete the survey in the official language of their choice. Respondents were directed to click on the hyperlink and follow the on-screen instructions to complete the survey. Upon completion, the participants submitted their responses by following the send instructions presented at the end of the survey. Individuals who did not have access to the Intranet were given the option of completing a paper version of the survey in either official language.

The cover page of the survey provided details necessary to fulfil the requirements for informed consent, information regarding the purpose of the study, and assurance that their participation was entirely voluntary and that they were free to skip any question they did not wish to answer (see Appendix D). Participants were also guaranteed that their responses would be kept anonymous and strictly confidential. In addition, they were

informed that results would only be reported in aggregate, such that no individual responses would be used. On average, the survey required 40 minutes to complete.

### *Measures*

The measures used in the current study were taken from the Canadian Forces Retention Questionnaire, which is an integrative survey containing several scales relevant to the study of retention issues. Scales used for this study are included in Appendix D. All items are either available in the public domain or were developed specifically for this survey.

### *Predictor Variables*

*Role Stressors.* Role stressors were assessed using the Occupational Environment Scale (OES; Osipow & Spokane, 1984). The OES is a subscale of Osipow's Occupational Stress Inventory (OSI) was designed to assess occupationally induced stress and the role of coping strategies on well-being. The OES was designed to tap role stressors in the context of a work environment. Since 1981, more than 60 studies (including validity studies) support the belief that the OSI is a psychometrically sound and practical method for use in variety of research and practical settings (Spokane & Ferrara, 2001). The OES measures six different aspects of role stress. However, for the purposes of this study, only four stressors were measured, using three items for each scale: (1) role ambiguity (e.g., "The priorities of my work are clear to me", reverse coded); (2) role conflict (e.g., "My supervisors have conflicting ideas about what I should be doing"); (3) role overload (e.g., "I am expected to do more work than is reasonable"); and, (4) role insufficiency (e.g., "My talents are being used in my work", reverse coded). Two scales, role responsibility for others and physical environment, were not included.

Physical environment items were not used because this study concentrated on psychosocial stressors and this aspect did not fit. In addition, items reflecting role responsibility for others were not included because a large portion of participants do not have subordinates. Items were scored on five-point Likert-type scales (1 = *Never* and 5 = *Always*). Coefficient alphas were acceptable: role ambiguity,  $\alpha = .76$ ; role conflict,  $\alpha = .75$ ; role overload,  $\alpha = .79$ ; and, role insufficiency,  $\alpha = .75$ .

*Organizational Image/Values.* This scale was developed specifically for the purposes of this survey. Researchers conducted focus groups across Canada to assess the perceptions from CF members as to why members would leave the organization prior to completing their contracts. The purpose of these focus groups was to develop a new exit survey for members voluntarily releasing from the organization. In the majority of focus groups, many participants relayed a common perception that the organizational values and image has changed in recent years to the detriment of the organization. Six items were developed from these focus groups to capture these sentiments (e.g., “The CF has become too political” and “The CF are losing their military traditions and customs”). Respondents were asked to indicate their agreement with these items on a six-point Likert-type scale (1 = *strongly disagree* and 6 = *strongly agree*). Coefficient alpha for this scale was acceptable:  $\alpha = .75$ .

*Negative Emotional Reactions to Perceived Injustice.* Emotional reactions to perceptions of unfair distribution of rewards was assessed by asking respondents to state how they felt regarding the programme designed to provide new recruits with monetary and promotional incentives upon joining the CF. The negative emotions selected were based on the prototype of anger described by Shaver, Schwartz, Kirson, and O'Connor

(1987). This prototype indicates that when an individual judges a situation to be illegitimate, wrong, unfair, or contrary to what ought to be, that individual will react with anger. Participants rated the extent to which they experienced the following five emotional reactions to recruiting incentives: “angry, resentful, bitter, contented, (reverse coded), and satisfied (reverse coded)”. The rating scale ranged from 1 = *Not at all* to 5 = *Very much*. Coefficient alpha was high at  $\alpha = .88$ .

#### *Moderator Variables*

*Organizational Commitment.* Organizational commitment was assessed using the 18-item organizational commitment scale developed by Meyer, Allen, and Smith (1993), and modified to reflect the CF, to assess affective commitment (e.g., “The CF has a great deal of personal meaning for me”), continuance commitment (e.g., “It would be hard for me to leave the CF right now, even if I wanted to”), and normative commitment (e.g., “The CF deserves my loyalty”). The shortened scales have obtained acceptable reliabilities and correlations in studies, comparable to those garnered in the original scales (Allen & Meyer, 1996). Items were scored on six-point Likert-type scales (1 = *Strongly Disagree* and 6 = *Strongly Agree*). The coefficient alphas obtained on the three six-item scales were acceptable: for the affective commitment scale,  $\alpha = .82$ ; for the continuance commitment scale,  $\alpha = .77$ ; and  $\alpha = .81$  for the normative commitment scale.

*Perceived Organizational Support (POS).* POS was assessed using the four-item shortened version of Eisenberger et al.’s (1986) Perceived Organizational Support Scale. This scale was designed to measure employee perceptions of how well they are being cared for and appreciated by their employer. Participants responded to such items as “The CF really cares about my well being” and “Even if I did the best possible job, the CF



would fail to notice” (reverse coded). Items were scored using a six-point Likert-type scale (1 = *Strongly Disagree* to 6 = *Strongly Agree*). The alpha coefficient for these items was .83.

*Voice.* Voice was measured using two construct definitions. The first measure, active voice, includes the dimension of being heard when an individual voices concerns. The second measure, passive voice, does not assess whether an individual’s concerns are taken into consideration (i.e. concerns are voiced but not necessarily used in the decision making process).

*Active voice.* Voice was measured using a single item, derived from the Taking Charge scale developed by Morrison and Phelps (1999). The taking charge scale did not completely capture the construct definition used for this study; therefore, it required refining. During the development of the taking charge scale, researchers found that employees were more likely to take charge when they believed that senior management was receptive to employee suggestions and initiatives (Morrison & Phelps, 1999). This result was consistent with Klammer et al.’s study (2002) in which perceptions of being heard was associated with greater propensity of employees to actively use voice to make suggestions for workplace improvements. Therefore, the single item “My suggestions get acknowledged by the local chain of command” was used to assess this construct. This item was scored using a six-point Likert-type scale (1 = *strongly disagree* and 6 = *strongly agree*).

*Passive voice.* A second voice measure was also derived from the Taking Charge scale (Morrison & Phelps, 1999), which included three items that did not include the aspect of being heard to provide a comparison of whether or not “being heard” did in fact

provide a different dimension that more clearly delineated the construct of study. Items such as “I often make constructive suggestions through the chain of command for improving how things operate within my work environment” were used to evaluate this alternative definition of “voice”. These items were scored using a six-point Likert-type scale (1 = *strongly disagree* and 6 = *strongly agree*). Coefficient alpha was considered acceptable at  $\alpha = .79$ .

### *Criterion Variables*

*Turnover Intention.* Turnover intention was measured using two three-item scales. The first measure, intention to turnover, assessed participants’ expectation to leave the organization within the next five years. The second measure, thoughts about intentions to turnover, was a more generalized measure where participants are just thinking about the possibility of leaving.

*Intention to turnover.* Turnover intention was assessed by a three-item scale that asked participants to rate their intention to leave the Canadian Forces within one, three, or five years based on Griffeth and Hom’s (2001) model of turnover intentions. Items were scored on five-point Likert-type scales (1 = *definitely not* and 5 = *definitely yes*). The scores were averaged across all three time frames. The coefficient alpha for the scale was .83.

*Thoughts about intentions to turnover.* A second three-item measure of turnover intention (TI 2) was also included in the survey (e.g., “I intend to leave the CF/DND as soon as another job becomes available”). This scale is also based on Griffeth and Hom’s (2001) model of turnover intentions and captures the concept of thoughts about intentions to turnover. Thoughts about turnover intention is a more generalized measure that is a

component of the withdrawal process; that is, thoughts precede actual turnover intentions, when employees are just thinking about the possibility of leaving (Griffeth & Hom, 1995). Items were scored on a seven-point Likert-type scale (1 = *strongly disagree*, 4 = *undecided*, 7 = *strongly agree*). The coefficient alpha was considered acceptable:  $\alpha = .64$ .

*Job Satisfaction.* Job satisfaction was assessed by using a 23-item job satisfaction scale that was developed for use in the CF Unit Morale Questionnaire. The scale was derived from items contained in the Spector Satisfaction Scale (Spector, 1985) and the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975). The Spector Satisfaction Scale was developed as a 9-subscale measure specifically applicable to measure satisfaction in those employed in human service, public, and nonprofit sector organizations (Spector, 1985). The JDS was developed to diagnose existing jobs to determine whether they may possibly be redesigned to improve employee motivation and productivity as well as to evaluate the effects of job changes on employees. This scale includes items that measure affective reactions of employees to the job and work setting (Hackman & Oldham, 1975), from which items were selected to develop the current satisfaction scale. Using a six-point Likert-type scale (1 = *completely dissatisfied* and 6 = *completely satisfied*), respondents were asked to indicate how satisfied they were with various aspects of their work and job (e.g., "How challenging your work is to you" and "The feedback you receive on your work performance"). The coefficient alpha was:  $\alpha = .94$ .

#### *Data Analysis*

Descriptive statistics and zero-order correlations assessed the characteristics of the sample. The first five hypotheses were tested using hierarchical moderated multiple regression. Due to the large number of variables, each moderator was tested using

separate regressions for each outcome variable. The first six hierarchical multiple regression analyses assessed workplace stressors on the criterion variable, Job Satisfaction, followed by six multiple regression analyses to assess workplace stressors on turnover intentions, and six multiple regression analyses assessing workplace stressors on thoughts of intention to turnover. Each moderated regression analysis followed the same procedure. The control variable of age was entered at step one<sup>1</sup>. Workplace stressors were entered in two steps: role stressors were entered at step two and the stressors of attitudes toward changes in organizational image and feelings towards recruiting incentives were entered at step three. Each of six moderator variables (i.e., one per analysis) was entered on step four. The interaction terms (i.e., moderator variable by each of the workplace stressors) were entered on step five. All scores were standardized prior to analyses to control for multicollinearity (Aiken & West, 1991).

Hypothesis six was tested using hierarchical multiple regression. The control variable of age was entered at step one. In accordance with Baron and Kenny (1986), the verification of a mediated effect requires the researcher to ascertain four criteria. That is, mediated regression analysis requires an assessment of the relationship between: (1) job satisfaction with each measure of turnover intention (mediator to dependent variable); (2) the workplace stressors and moderator variables with each measure of turnover intentions (independent variables to dependent variables); (3) the workplace stressors and moderator variables with job satisfaction (independent variable to mediator); and, (4) workplace stressors and moderator variables with each measure of turnover intentions controlling for job satisfaction.

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<sup>1</sup> The original analysis tested gender differences as a control variable; however, no significant differences between genders existed. Therefore, gender was dropped as a control variable.

In addition to controlling for age, the sample was split to compare terms of service of two major groups of participants: members who are serving on an Intermediate Engagement (IE) and members who are serving on an Indefinite Period of Service (IPS). It was necessary to examine the groups separately because they have different contractual requirements. Members serving on an IE contract are in their first twenty years of service, so they are generally younger, are in earlier stages of their careers, on average have less responsibility, and do not receive pensions if they leave prior to twenty years. Conversely, IPS contracts normally follow the completion of twenty years of service, so members are usually older, have progressed into employment that holds more responsibility, and can leave the organization more easily due to the automatic receipt of a pension.

### Results

Initial screening of the data for outliers and violations of assumptions (including non-linearity, non-normality, and heteroskedasticity) did not detect any univariate outliers. Most variables were mildly negatively skewed. Because linear regression is robust to violations of normality, particularly when skew is in the same direction and when there is a large sample size (Howell, 2002; Tabachnick & Fidell, 2001), the data were considered suitable for analysis and no transformations were made.

Missing data were treated using listwise deletion, resulting in the removal from the analysis of any case missing a value. This procedure results in varied sample sizes across analyses. Variables included in the analysis had missing values of less than 1% of the total cases. Missing data on one item for one scale (i.e., thoughts about intentions to turnover), however, resulted in the loss of more than 500 cases. This is not surprising as

the item in question (“I intend to leave the CF as soon as I attain 20 years of service”) is not applicable to those participants who had already attained more than 20 years of service (i.e., members serving on an IPS contract). Therefore, this scale was calculated using the imputation method of mean replacement, thus preventing the loss of 500 cases from the analysis.<sup>2</sup> This process resulted in an overall sample size that averaged 2573 for regressions related to job satisfaction outcome variable, 2624 for regressions related to turnover intentions, and 2629 for regressions related to thoughts about intentions to turnover. Convention requires a minimum of participants per predictor be estimated by the following equation:  $N \geq 50 + 8m$ , where  $m$  is the number of IVs (Tabachnick & Fidell, 2001). Therefore, for this analysis a minimum sample size required is approximately 154. This research more than adequately exceeds this minimum.

Post-analysis checks for violations of assumptions were also carried out using the residuals. Mahalanobis distance, Cook’s distance, and Centered Leverage Value were assessed to identify multivariate outliers. Although some Mahalanobis values were statistically significant as per the maximum degrees of freedom listed on the tabled  $\chi^2$  distribution using  $p < .001$ , the highest value was 215.56. Considering the very large sample size and that both Cook’s distance and the centered leverage values were assessed as being less than one, there is sufficient evidence that multivariate outliers had no effect in the data analysis; therefore, no cases were deleted. The variance inflation factor (VIF) was assessed to test for multicollinearity, all values were considerably less than 10; therefore, the data are appropriate for use. The histograms of residuals indicated a normal distribution. Finally, the scatterplots were examined for violations of the assumptions of

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<sup>2</sup> Analysis was conducted with and without these 500 cases with no differences in any relationship studied; therefore, the cases were retained with mean replacement.

homoskedasticity, independence of residuals, and linearity. These assumptions were met. Consequently, the data were deemed appropriate for analysis of the hypothesized relationships.

In analyses that have very large sample sizes even small differences can be statistically significant because of increased power to find small effect sizes (Howell, 2002). To avoid the problems associated with finding significant relationships that are trivial in nature a more stringent significance level was used in this research. The conservative significance level was set at  $p < .001$  for all analyses due to the sample size of 2748.

#### *Grouping Variable*

The data were initially split into two groups that included participants serving on IE or IPS contracts due to the expectation that differences in contractual obligations may play an important role in differentiating between the groups (see Appendix E to L). One-way analyses of variance were conducted to assess group differences. The mean difference of 0.11 on job satisfaction was not significant,  $F(1, 2189) = 9.06, ns$ ; the mean difference of 0.50 on turnover intentions  $F(1, 2189) = 128.95, p < .001$ ; and, the difference of 0.54 on thoughts about turnover  $F(1, 2189) = 74.29, p < .001$ . Although there were statistically significant mean differences between groups on the criterion variables, the practical difference was inconsequential. Because of the nature of the contracts, group mean ages are significantly different,  $F(1, 2334) = 1155.89, p < .001$ ; therefore, age was retained as a control variable. Post hoc analyses indicated no differences in the pattern of results when using the two separate groups or the combined groups. That is, although the magnitude of the zero-order correlations differed, the

direction and significance of the relationships were the same. Consequently, the data were re-analyzed using all cases due to the lack of practical differences.

### *Correlations*

Correlations among the study variables, means, standard deviations, and scale alphas are presented in Table 1. Because of the large sample size even small correlations are statistically significant. Therefore, the magnitude of correlations and beta weights are discussed in addition to simple statistical significance. Age was significantly correlated with turnover intentions and thoughts about turnover, but was not significantly correlated with job satisfaction ( $r = .24, p < .001$ ;  $r = -.18, p < .001$ ;  $r = .07, ns$ ; respectively).

Correlations between the workplace stressors and the outcome variables ranged from  $-.59$  to  $-.19, p < .001$  for job satisfaction, and from  $.10$  to  $.25, p < .001$  for turnover measures. There were two exceptions, turnover intentions was not significantly related to either role overload or role ambiguity ( $r = .05, ns$ ;  $r = .07, ns$ ). Correlations between the moderator variables and the outcome variables ranged from  $.09$  to  $.57, p < .001$  for job satisfaction and from  $-.12$  to  $-.49, p < .001$  for turnover measures. Exceptions to this are for correlations between job satisfaction and continuance commitment ( $r = -.02, ns$ ); between turnover intentions and passive voice ( $r = -.02, ns$ ); and, between thoughts about turnover and passive voice ( $r = -.07, ns$ ).

### *Regressions*

Moderated multiple regressions were employed to examine the relationships of workplace stressors with job satisfaction and turnover intentions and whether the addition of a moderator variable and its respective interactions improved the prediction of job satisfaction and turnover intentions beyond that afforded by workplace stressors.



**Table 1:** Correlations of variables and descriptive statistics ( $N = 2527$ , listwise deletion)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Job Satisfaction	3.95	.82	.94															
2. TI 1	2.52	1.11	-.33*	.83														
3. TI 2	3.82	1.48	-.43*	.54*	.64													
4. Age	39.05	5.63	.07	.24*	-.18*	n/a												
<i>Role Stressors</i>																		
5. Ambiguity	1.95	.65	-.32*	.07	.13*	-.08	.76											
6. Conflict	2.56	.90	-.49*	.21*	.23*	-.06	.28*	.75										
7. Insufficiency	2.28	.77	-.59*	.17*	.25*	-.06	.24*	.19*	.75									
8. Overload	3.54	.79	-.19*	.05	.10*	-.04	.14*	.34*	-.27*	.79								
9. Org. Image	4.54	.78	-.26*	.12*	.13*	.00	.02	.21*	.11*	.13*	.75							
10. Incentives	3.00	1.03	-.20*	.11*	.15*	-.02	.03	.17*	.08	.06	.34*	.88						
<i>Commitment</i>																		
11. Affective	3.80	.96	.48*	-.39*	-.49*	-.00	-.17*	-.27*	-.33*	.00	-.18*	-.24*	.82					
12. Continuance	3.28	.94	-.02	-.30*	-.12*	-.05	.03	.02	.03	-.07	.05	.08	.03	.77				
13. Normative	3.34	.97	.39*	-.40*	-.43*	-.06	-.10*	-.20*	-.27*	.01	-.14*	-.19*	.70*	.20*	.81			
14. POS	3.48	.96	.57*	-.32*	-.36*	-.00	-.16*	-.36*	-.30*	-.16*	-.34*	-.32*	.55*	-.04	.46*	.83		
15. Active Voice	4.08	1.15	.54*	-.20*	-.26*	-.00	-.24*	-.40*	-.39*	-.03	-.17*	-.17*	.37*	-.05	.27*	.46*	n/a	
16. Passive Voice	4.79	.79	.09*	-.02	-.07	.01	-.13*	.05	-.26*	.34*	.06	-.05	.19*	-.08	.09*	.06	.25*	.79

Note: \*  $p < .001$ ; ( $r \geq .05$ ,  $p < .05$ ;  $r \geq .07$ ,  $p < .01$ ); Cronbach's alpha on the diagonal; TI 1 = Turnover Intentions; TI 2 = Thoughts about Turnover; POS = Perceived Organizational Support

Age was retained as a control variable for each analysis and entered in the first step of the hierarchical regressions. Age did not account for significant variance in job satisfaction ( $R^2 = .00$ , *ns*). Age accounted for a small but significant amount of variance in both measures of turnover intentions ( $R^2 = .06$ ,  $p < .001$ ; and,  $R^2 = .03$ ,  $p < .001$ , respectively).

*Workplace Stressors.* The first two hypotheses addressed the direct relationships of workplace stressors with job satisfaction and turnover intentions. Workplace stressor variable correlations with criterion variables are presented in Table 1.

The six workplace stressors were entered in two steps to assess the relationship with the criterion variables. The four role stressors were entered on step two and the organizational image and feelings toward incentives variables were entered on step three (see Table 2). Role stressors accounted for an additional 55% ( $p < .001$ ) of variance in job satisfaction and an additional 7% ( $p < .001$ ) and 10% ( $p < .001$ ) of variance for turnover intentions and thoughts of turnover (respectively). Role ambiguity was a unique predictor of job satisfaction only ( $\beta = -.07$ ,  $p < .001$ ). Role conflict uniquely predicted job satisfaction, turnover intentions and thoughts of turnover ( $\beta = -.27$ ,  $p < .001$ ,  $.18$ ,  $p < .001$ , and  $.15$ ,  $p < .001$ , respectively). Role insufficiency uniquely predicted the outcome measures consistently across all analyses ( $\beta = -.59$ ,  $p < .001$ , for job satisfaction;  $\beta = .16$ ,  $p < .001$ , for turnover intentions; and,  $\beta = .24$ ,  $p < .001$ , for thoughts of turnover). Role overload was also a unique predictor of job satisfaction and thoughts of turnover ( $\beta = -.24$ ,  $p < .001$ , and  $\beta = .10$ ,  $p < .001$ , respectively).

Attitudes toward changes in organizational values and feelings towards incentives accounted for a supplementary 2% ( $p < .001$ ) of variance in job satisfaction and an

additional 1% ( $p < .001$ ) of variance for both turnover intentions and thoughts of turnover. Changes in organizational values uniquely predicted job satisfaction ( $\beta = -.09, p < .001$ ). Feelings towards recruiting incentives uniquely predicted job satisfaction and thoughts of turnover ( $\beta = -.07, p < .001$ ; and,  $\beta = .09, p < .001$ , respectively).

*Organizational Commitment.* In order to test the hypothesis that affective, continuance, and normative commitment will moderate the relationship of workplace stressors with job satisfaction and turnover intentions, the commitment variables were entered on step four in three separate analyses. Interaction terms of the moderator variable by the individual workplace stressors were entered in step five (see Tables 2 to 4).

*Affective Commitment.* Affective commitment accounted for a 4% ( $\beta = .22, p < .001$ ) increase in the variance in job satisfaction. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance (see Table 2).

Affective commitment accounted for a 9% ( $\beta = -.33, p < .001$ ) and 15% ( $\beta = -.43, p < .001$ ) increase in the variance in turnover intentions and thoughts of turnover, respectively. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance for both measures of turnover intentions.

*Continuance Commitment.* Continuance commitment did not account for any increase in the variance in job satisfaction. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance (see Table 3).

Continuance commitment accounted for a 9% ( $\beta = -.31, p < .001$ ) and 2% ( $\beta = -.14, p < .001$ ) increase in the variance for turnover intentions and thoughts to turnover,

**Table 2:** Hierarchical Moderated Regression, moderating variable Affective Commitment (Job Satisfaction  $N = 2566$ ; Turnover Intentions  $N = 2615$ ; Thoughts of turnover  $N = 2620$ )

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	Affective Commitment	.22*	.04*	-.33*	.09*	-.43*	.15*
5	Interactions		.00		.00		.01
	x Ambiguity	-.01		-.01		-.04	
	x Conflict	.03		.05		.05	
	x Insufficiency	.00		-.03		.03	
	x Overload	-.00		-.02		.03	
	x Org Image	-.02		.00		.01	
	x Incentives	.00		-.01		-.02	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2552) = 283.14$ ,  $p < .001$ ; Turnover Intentions,  $F(14, 2601) = 55.45$ ,  $p < .001$ ; Thoughts of turnover,  $F(14, 2606) = 80.13$ ,  $p < .001$ .

respectively. The addition of the six interaction terms, in step five, did not significantly increase the explained variance for both measures of turnover intentions.

*Normative Commitment.* Normative commitment accounted for a 3% ( $\beta = .18$ ,  $p < .001$ ) increase in the explained variance in job satisfaction. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance (see Table 4).

Normative commitment accounted for a 9% ( $\beta = -.33$ ,  $p < .001$ ) and 12% ( $\beta = -.37$ ,  $p < .001$ ) increase in the variance in both turnover intentions and thoughts of turnover, respectively. The addition of the six interaction terms, in step five, provided no

**Table 3: Hierarchical Moderated Regression, moderating variable Continuance Commitment (Job***Satisfaction N = 2560; Turnover Intentions N = 2610; Thoughts of turnover N = 2615)*

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	Continuance Commitment	.00	.00	-.31*	.09*	-.14*	.02*
5	Interactions		.00		.01		.00
	x Ambiguity	-.00		.01		.02	
	x Conflict	.00		-.01		-.00	
	x Insufficiency	.01		-.06		-.03	
	x Overload	-.04		.01		.02	
	x Org Image	.03		.00		-.01	
	x Incentives	.01		.00		-.03	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2546) = 238.66, p < .001$ ; Turnover Intentions,  $F(14, 2596) = 58.47, p < .001$ ; Thoughts of turnover,  $F(14, 2601) = 37.83, p < .001$ .

significant increase in the variance explained for either turnover intentions or thoughts about intentions to turnover.

*Perceived Organizational Support (POS)*. The results of step four of the moderated regression analyses of the predictor variables of workplace stressors on the three outcome variables with the addition of the moderator variable POS are displayed in Table 5. This analysis tested the hypothesis that POS will moderate the relationship between workplace stressors and job satisfaction and turnover intentions. Interaction terms of the moderator variable by the individual workplace stressors were entered in step five.

**Table 4:** Hierarchical Moderated Regression, moderating variable Normative Commitment (JobSatisfaction  $N = 2567$ ; Turnover Intentions  $N = 2616$ ; Thoughts of turnover  $N = 2621$ )

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	Normative Commitment	.18*	.03*	-.33*	.09*	-.37*	.12*
5	Interactions		.00		.00		.00
	x Ambiguity	-.00		-.01		-.01	
	x Conflict	.03		.02		.04	
	x Insufficiency	.02		-.01		.00	
	x Overload	-.01		-.01		.00	
	x Org Image	-.01		.01		.02	
	x Incentives	.00		-.00		-.03	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2553) = 268.16, p < .001$ ; Turnover Intentions,  $F(14, 2602) = 56.75, p < .001$ ; Thoughts of turnover,  $F(14, 2607) = 68.97, p < .001$ .

The potential moderator variable POS was entered on the fourth step to assess the relationship with job satisfaction and the two turnover intention measures (see Table 5).

POS accounted for a 6% ( $\beta = .29, p < .001$ ) increase in the variance in job satisfaction.

The addition of the six interaction terms, in step five, provided no significant increase in the variance explained in job satisfaction.

POS accounted for a 4% ( $\beta = -.24, p < .001$ ) and 5% ( $\beta = -.27, p < .001$ ) increase in the variance for turnover intentions and thoughts of turnover, respectively. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance in either turnover intentions or thoughts of turnover.

**Table 5: Hierarchical Moderated Regression, moderating variable Perceived Organizational Support (POS), (Job Satisfaction  $N = 2583$ ; Turnover Intentions  $N = 2635$ ; Thoughts of turnover  $N = 2640$ )**

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	POS	.29*	.06*	-.24*	.04*	-.27*	.05*
5	Interactions		.01		.00		.00
	x Ambiguity	-.01		.02		.00	
	x Conflict	.05		-.02		-.00	
	x Insufficiency	.01		.00		.00	
	x Overload	.01		.00		.01	
	x Org Image	-.01		.02		.01	
	x Incentives	.00		-.03		-.04	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2569) = 310.08, p < .001$ ; Turnover Intentions,  $F(14, 2621) = 41.66, p < .001$ ; Thoughts of turnover,  $F(14, 2626) = 46.56, p < .001$ .

*Voice.* The results of step four of the moderated regression analyses of the predictor variables of workplace stressors on the three outcome variables with the addition of the moderator variable voice are displayed in Table 6 and 7. This analysis tested the hypothesis that “voice” will moderate the relationship of workplace stressors with job satisfaction and turnover intentions. Interaction terms of the moderator variable by the individual workplace stressors were entered in step five (see Table 6 and 7). Voice was assessed using two measures; active voice was defined in terms of the aspect of being heard (see Table 6) and passive voice reflected only participants’ ability to make suggestions (see Table 7).

*Active Voice.* The potential moderator variable active voice was entered on the fourth step to assess the relationship with job satisfaction and the two turnover intention

**Table 6:** Hierarchical Moderated Regression, moderating variable Active Voice (Job Satisfaction  $N = 2581$ ; Turnover Intentions  $N = 2632$ ; Thoughts of turnover  $N = 2636$ )

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	Active Voice	.23*	.04*	-.07	.01	-.12*	.01*
5	Interactions		.00		.00		.00
	x Ambiguity	-.01		-.04		-.05	
	x Conflict	.01		-.01		-.01	
	x Insufficiency	.01		.01		.03	
	x Overload	.02		.01		.02	
	x Org Image	-.04		.01		-.01	
	x Incentives	.02		-.00		-.02	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2567) = 280.07$ ,  $p < .001$ ; Turnover Intentions,  $F(14, 2618) = 32.04$ ,  $p < .001$ ; Thoughts of turnover,  $F(14, 2623) = 35.37$ ,  $p < .001$ .

measures (see Table 7). Active voice accounted for a 4% ( $\beta = .23$ ,  $p < .001$ ) increase in the variance for job satisfaction. The addition of the six interaction terms, in step five, provided no significant increase in the explained variance.

Active voice accounted for a 1% ( $p < .001$ ) increase in the variance for thoughts of turnover ( $\beta = -.12$ ,  $p < .001$ ). The addition of the six interaction terms, in step five, provided no significant increase in the variance explained for turnover intentions and thoughts of turnover.

*Passive voice.* The potential moderator variable of passive voice was entered on the fourth step to assess the relationship with job satisfaction and the two turnover intention measures (see Table 7). The addition of passive voice had no effect on variance accounted for in job satisfaction. The addition of the six interaction terms, in step five,



**Table 7: Hierarchical Moderated Regression, moderating variable Voice 2 (Job Satisfaction  $N = 2583$ ; Turnover Intentions  $N = 2634$ ; Thoughts of turnover  $N = 2639$ )**

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Role Stressors		.55*		.07*		.10*
	Ambiguity	-.07*		-.00		.00	
	Conflict	-.27*		.18*		.15*	
	Insufficiency	-.59*		.16*		.24*	
	Overload	-.24*		.04		.10*	
3	Org. Stressors		.02*		.01*		.01*
	Org. Image	-.09*		.04		.03	
	Incentives	-.07*		.06		.09*	
4	Passive Voice	.02	.00	-.01	.00	-.05	.00
5	Interactions		.00		.00		.00
	x Ambiguity	-.02		.03		.01	
	x Conflict	.01		-.03		-.02	
	x Insufficiency	.00		-.00		.02	
	x Overload	-.00		.00		.03	
	x Org Image	-.04		-.00		.02	
	x Incentives	-.01		.02		.00	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(14, 2569) = 241.14$ ,  $p < .001$ ; Turnover Intentions,  $F(14, 2620) = 31.05$ ,  $p < .001$ ; Thoughts of turnover,  $F(14, 2625) = 32.75$ ,  $p < .001$ .

provided no significant increase in the explained variance. Due to the absence of any main or interaction effects,  $\beta$  weights are not interpreted (see Table 7).

The addition of passive voice accounted for no additional variance in both turnover intentions and thoughts of turnover. The addition of the six interaction terms, in step five for both turnover intentions and thoughts of turnover, provided no significant increase in the explained variance.  $\beta$  weights are not interpreted (see Table 7).

#### *Mediating Effects*

In order to test the hypothesis that job satisfaction mediates the relationship between workplace stressors and the moderating variables with turnover intentions, four relationships were assessed using hierarchical regression. Controlling for age, workplace stressors and moderator variables were regressed on job satisfaction (see Table 8);

**Table 8:** Hierarchical Multiple Regression, direct relationship between workplace stressors and moderator variables with job satisfaction and turnover intention measures (Job Satisfaction  $N = 2531$ ; Turnover Intentions  $N = 2576$ ; Thoughts of turnover  $N = 2581$ )

Step	Variable	Job Satisfaction		Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.06	.00	.25*	.06*	-.18*	.03*
2	Workplace Stressors		.56*		.08*		.11*
	Ambiguity	-.08*		-.00		.01	
	Conflict	-.24*		.17*		.13*	
	Insufficiency	-.57*		.16*		.23*	
	Overload	-.23*		.04		.10*	
	Org. Image	-.07*		.04		.04	
	Incentives	-.08*		.06		.09*	
3	Moderator Variables		.09*		.18*		.18*
	Affective C.	.08*		-.20*		-.30*	
	Continuance C.	-.01		-.27*		-.09*	
	Normative C	.05		-.09*		-.14*	
	POS	.19*		-.11*		-.07	
	Active Voice	.16*		-.01		-.04	
	Passive Voice	-.03		.01		-.00	

Note: \*  $p < .001$ ; Job Satisfaction,  $F(13, 2518) = 365.59, p < .001$ ; Turnover Intentions,  $F(13, 2563) = 94.19, p < .001$ ; Thoughts of turnover,  $F(13, 2568) = 94.93, p < .001$ .

workplace stressors and moderator variables were regressed on both measures of turnover intentions (see Table 8); job satisfaction was regressed on both measures of turnover intention (see Table 9); and workplace stressors and moderator variables were regressed on both measures of turnover controlling for job satisfaction (see Table 9), thus satisfying the criteria established by Baron and Kenny (1986).

Workplace stressors were significant predictors of job satisfaction and both measures of turnover intentions. Workplace stressors accounted for 56% ( $p < .001$ ) variance in job satisfaction, 8% ( $p < .001$ ) variance in turnover intentions, and 11% ( $p < .001$ ) variance in thoughts of turnover (see Table 8). The moderator variables accounted

**Table 9:** Hierarchical Multiple Regression, mediated relationship between workplace stressors and moderator variables with turnover intention measures: Job Satisfaction as mediator (Turnover Intentions  $N = 2526$ ; Thoughts of turnover  $N = 2531$ )

Step	Variable	Turnover Intentions		Thoughts of Turnover	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.25*	.06*	-.18*	.03*
2	Job Satisfaction	-.35*	.12*	-.42*	.18*
3	Workplace Stressors		.01*		.01
	Ambiguity	-.03		-.02	
	Conflict	.09*		.02	
	Insufficiency	-.03		.00	
	Overload	-.04		.00	
	Org. Image	.01		.00	
	Incentives	.06		.06	
4	Moderator Variables		.15*		.13*
	Affective C.	-.19*		-.28*	
	Continuance C.	-.28*		-.09*	
	Normative C.	-.09*		-.13*	
	POS	-.07		-.02	
	Active Voice	.02		-.00	
	Passive Voice	.01		-.01	

Note: \*  $p < .001$ ; Turnover Intentions,  $F(14, 2512) = 91.96, p < .001$ ; Thoughts of turnover,  $F(14, 2531) = 93.14, p < .001$ .

for a 9% ( $p < .001$ ) increment in the explained variance in job satisfaction, an 18% ( $p < .001$ ) increment in explained variance in turnover intentions, and an 18% ( $p < .001$ ) increment in explained variance in thoughts about turnover intentions (see Table 8). Job satisfaction accounted for a 12% ( $\beta = -.35, p < .001$ ) and 18% ( $\beta = -.42, p < .001$ ) increase in the variance explained for turnover intentions and thoughts of turnover, respectively (see Table 9). The final step in testing for mediation required hierarchical regression in which job satisfaction was entered as a control variable followed by entry of the workplace stressor variables (step 3) and moderator variables (step 4). After controlling for job satisfaction, workplace stressors accounted for 1% ( $p < .001$ ) variance in turnover intentions and 0.5% (*ns*) variance in thoughts about turnover. After

controlling for job satisfaction, the moderator variables accounted for 15% ( $p < .001$ ) variance in turnover intentions and 13% ( $p < .001$ ) variance in thoughts of turnover intentions.

### Discussion

The main goals of this study were: (1) to assess the relationships of role stressors with job satisfaction and turnover intentions; (2) to examine whether attitudes toward changes in organizational image and feeling towards recruiting incentives explain incremental variance in turnover intentions and job satisfaction beyond what is explained by the traditional role stressors; and, (3) to examine the possible moderating effects of several organizational level factors (i.e., organizational commitment, perceived organizational support, and voice) on the relationship of workplace stressors with job satisfaction and turnover intentions.

Initially the relationships of interest for this study were examined separately for participants serving on IE and IPS contracts. However, because differences in the relationships of workplace stressors with the outcome variables were inconsequential, the groups were combined. Age was controlled in the analysis due to a significant positive relationship with turnover intentions. Older members tended to have higher intentions of turnover within a five year span. Somewhat paradoxically, older members were less likely to think about intentions of turnover. That is, members are less likely to consider leaving as the opportunity arises as their age increases.

### *Zero-Order Correlations*

Past research has indicated that there are significant differences in the pattern of results for turnover intentions between military and non-military samples (e.g., Griffeth et

al., 2000; Steel & Ovalle, 1984). Examination of the zero-order correlations in this study supports this assertion. The lack of a significant correlation between age and job satisfaction is particularly noteworthy. Prior research has almost consistently reported a strong positive relationship between age and job satisfaction (e.g., Spector, 1997). However, in this study the relationship between age and job satisfaction was not significant. This could be attributed to the relatively older age of the sample. Only 6.9% of respondents were under 30 years of age, 44.1% were between 30 and 39 years old, and 49% were over the age of 40. This could effectively restrict the range of responses, thus attenuating the ability to detect a significant correlation. As well, this restriction of range could also have played a role in the lack of significant zero-order correlations between the organizational commitment scales and age. Prior research with civilian populations has shown significant correlations between age and the three components of organizational commitment (Cohen, 1993; Meyer et al., 2002). These findings provide evidence of the importance of being cautious when attempting to generalize research results to various populations.

Zero-order correlations between job satisfaction and turnover intentions generally have been lower in military ( $r = -.38$ ) vs. civilian ( $r = -.49$ ) populations (Fuller et al., 1996); and in Carsten and Spector (1987), these correlations were  $r = -.20$  and  $r = -.48$ , respectively. The current study supports these findings, in that, the job satisfaction – turnover intention zero-order correlation is  $r = -.33$ . As indicated in Hom et al. (1992), this weaker association could be due contractual obligations that may prevent dissatisfied members from leaving the organization prior to contract completion. The weaker relationship realized between job satisfaction and turnover intentions could also be due to

a strong sense of patriotic duty. That is, individuals that enrol in the military often base their decision on a sense of moral or patriotic motives that could, in effect, supersede some job-related dissatisfaction (Fuller et al., 1996). Consequently, it is important to continue research using military populations to ensure that effective policy decisions can be made based on relevant variable associations.

### *Overview of Hypotheses*

The findings support the first hypothesis, which stated that (a) there is a direct negative relationship between role stressors and job satisfaction; and that (b) there is a direct positive relationship between role stressors and turnover intentions. Workplace stressors were negatively related to job satisfaction and positively related to turnover intentions. Attitudes toward changes in organizational image and negative reactions toward recruiting incentives explained incremental variance beyond the variance explained by the traditional role stressors, which also supported hypothesis two. There was no support for the hypotheses (three to five) that there would be moderating effects of organizational commitment, perceived organizational support, and voice on the relationships of workplace stressors with job satisfaction and turnover intentions. Hypothesis six was partially supported. That is, job satisfaction mediated the relationship between workplace stressors and both measures of turnover intentions; however, job satisfaction did not mediate the relationship between the moderator variables and both measures of turnover intentions.

### *Role Stressors*

The belief that workplace stressors are negatively related to job satisfaction and positively related to intentions to turnover has been fairly well researched (Carsten &

Spector, 1987; Griffeth et al.; 2000; Hom & Griffeth, 1995; Steel & Ovalle, 1984; Tett & Meyer, 1993). The majority of studies of workplace stressors have concentrated on role stressors, and more specifically, they tended to only use role conflict and role ambiguity as variables to assess the relationships to job outcomes (Bhagat et al., 1985; Kemery et al., 1986; Netemeyer et al., 1990; O'Driscoll & Beehr, 2000). The current study included four role stressors and found similar significant negative relationships between role ambiguity, conflict, insufficiency and overload and job satisfaction, as well as similar significant positive relationships between role stressors and turnover intentions. In particular there was a strong and consistent association of role conflict and role insufficiency with the job outcomes assessed. These results are consistent with findings in other studies using these variables. Role stress is an inevitable consequence of engaging in a variety of roles and tasks, which have an impact on the individuals' feelings and attitudes toward their job and organization (Dobrevva-Martinova et al., 2002).

Role insufficiency is the degree to which there is incongruence between the incumbents training, education, skills, and experience and that required for the actual job (Osipow & Spokane, 1984). Considering the strong negative relationship with job satisfaction as well as the strong positive relationship with intentions to turnover realized with role insufficiency, organizations must provide challenging and relevant work for employees at a level consistent with their skills, abilities, and training. Role conflict is the experience of incompatible demands and loyalties in the workplace (Osipow & Spokane, 1984). The fact that role conflict was a strong unique predictor of job outcomes emphasizes the importance of clear direction and communication within the organization.

Although zero-order correlations between role ambiguity and job satisfaction and thoughts of turnover were significant, these relationships changed noticeably when regressed in combination with other role stressors. Contrary to many other studies, role ambiguity did not provide significant unique prediction of turnover intentions and only modest, unique prediction of job satisfaction. This result could be due to differences in sample populations. Past meta-analyses have found differences between military and non-military samples (Steel & Ovalle, 1984; Tett & Meyer, 1993). The current sample displayed a very low mean for role ambiguity ( $M = 1.95$ ,  $SD = .65$ ). The lack of role ambiguity is a logical result due to the nature of the sample population. Military policy requires that each position in the organization must have a Terms of Reference delineating the responsibilities associated with the position. In addition, each member is given a Personal Development Report twice yearly, which is accompanied by a supervisor interview. These measures are in place to ensure that all members are aware of what is expected of them and what they are responsible for in the performance of their duties. The effects of these policies may have played a role in buffering the ambiguity in some roles and responsibilities, and effectively decreasing the associated stress. This finding also underscores the importance of examining several facets of a construct (i.e., more role stressors than the traditionally studied ambiguity and conflict), and of extending research to a variety of populations to garner a comprehensive understanding of the phenomena in question.

#### *Non-Traditional Workplace Stressors*

The current study endeavoured to expand on workplace stressor knowledge by including two stressors that had not been tested previously: attitudes toward changes in



organizational image and negative reactions toward recruiting incentives. Hypothesis two predicted that after controlling for traditional role stressors, these stressors would explain significant incremental variance in job satisfaction and in turnover intentions. This hypothesis was supported. Each stressor possessed a significant negative correlation with job satisfaction. In combination, these stressors possessed a significant positive correlation with both turnover measures, with negative reactions to recruiting incentives possessing a strong unique association with thoughts of turnover. These stressors explained a small (but statistically significant) increase of 1-2% in variance in the outcome variables. Although these relationships are significant, they are modest, at best.

*Organizational Image/Values.* Perceived change in organizational image explained modest, incremental variance in the outcome variables. Organizational values are an essential determinant of individual-organizational fit, such that congruency between values equate to employees who are more satisfied and less likely to turnover (Chatman, 1991; Judge & Bretz, 1992). Studies support the notion that individuals self-select into organizations whose values correspond to their own and that a mismatch of fit can lead to higher rates of turnover (O'Reilly, Chatman, & Caldwell, 1991; Sheridan, 1992). Previous studies, however, did not consider the aspect of attitudes toward changes in organizational values in assessing the relationships of congruence and incongruence between personal and organizational values. Past research explored the interaction of individual characteristics and broad occupational attributes, as well as the fit between specific organizational characteristics and incumbents (O'Reilly et al., 1991). The present study extended the understanding of the effects of incongruence between values by demonstrating that employees who perceive changes in organizational values to those

that no longer correspond to their own values may experience decreased job satisfaction. Delineating the relationship between perceived changes in organizational image is an important area of study particularly when one considers the number of organizations that are undergoing re-organization, amalgamations with other organizations, and downsizing.

Previous research has concentrated on person-organization fit; the current study provided a significant contribution to turnover research by extending the understanding of the relationship between congruence of values and job satisfaction and turnover intentions through an examination of attitudes toward changes organizational values after incumbents were with the organization for a number of years. The current finding that attitudes toward changes in organizational values explain variance in job satisfaction supports previous research on organizational culture and resistance to change. An organizational culture comprises several facets that include values, norms, philosophy, climate, rules, and routine (Hellriegel et al., 1995). Accordingly, values are considered to be highly resistant to change because values represent the collective beliefs, assumptions, and feelings about what is considered normal, rational, or valuable to the organization. When individual and organizational values match, there tends to be lower levels of turnover intentions and higher satisfaction than in situations where there is a mismatch in values (Chatman, 1991; O'Reilly et al., 1991; Sheridan, 1992). Organizations should consider ways to mitigate the effects changes in organizational values to minimize both the possible decrease in satisfaction and increase in turnover.

*Recruiting Incentives.* Negative feelings toward recruiting incentives explained modest incremental variance in the outcome variables. The introduction of recruiting

incentives has grown in popularity in recent years (Rynes & Cable, 2003); however, very little research has been conducted to assess the impact of this new practice. The current study provided evidence that there is a negative relationship between these negative feelings and job satisfaction and a positive relationship between this variable and turnover intentions. These findings are similar to other distributive justice studies that found that non-beneficiaries of perceived unfair policies ranged from reductions in work enthusiasm and organization attractiveness to declines in pro-social behaviours (Heilman et al., 1996; Truxillo & Bauer, 1999). The results of this study contribute to the current understanding of not only reactions to perceived unfair practices but also to our understanding of turnover intentions and job satisfaction by demonstrating that the use of recruiting bonuses can result in negative reactions detrimental to existing employees and the organization.

Although moderate, the existence of this relationship between negative reactions to recruiting incentives and job satisfaction and thoughts of turnover provides an impetus for organizations to ensure that consideration is given to the impact of such policies prior to implementation. More research is required to examine the association of recruiting incentives with other job outcomes (e.g., retention of employees benefiting from the incentives beyond the original contract). Research should focus on possible buffering factors that would mitigate the impact of the relationships. Future research should consider the impact of such policies not only on existing employees but on new hires as well. Research on affirmative action policy shows that both the disadvantaged and advantaged experience negative outcomes (Rynes & Cable, 2003). Finally, recruiting incentives are often attached to contracts that specify minimum years of service to enable

the new hire to receive the incentive or bonus. Future research should consider long term effects for retaining employees hired under these conditions in addition to the effects on incumbents. When organizations are concerned with retaining trained employees, it is not prudent to hire an individual on a short-term contract without inducements to remain once the training period is complete.

### *Moderated Regressions*

The hypothesis that affective, continuance, and normative commitment would moderate the relationship between workplace stressors and job satisfaction and turnover intentions was not supported. However, main effects were found for affective and normative commitment for job satisfaction and for all three organizational commitment variables for both measures of turnover intentions. The main effects findings are congruent with previous research; that is, organizational commitment is a predictor of turnover intentions (Hom & Griffeth, 2000; Steel & Ovalle, 1984; Tett & Meyer, 1993).

The hypothesis that perceived organizational support would moderate the relationship between workplace stressors and job satisfaction and turnover intentions was not supported. Nevertheless, main effects were found for POS for job satisfaction and for both measures of turnover intentions. The current study supports previous research by demonstrating that when employees perceive their organizations as supportive, there is greater job satisfaction and fewer turnover intentions (Cropanzano et al., 1997).

The hypothesis that voice would moderate the relationship between workplace stressors and job satisfaction and turnover intentions was not supported. Main effects were found for active voice (aspect of being heard included) for job satisfaction and for both measures of turnover intentions. However, there were no significant interaction

effects. Neither main effects nor interactions effects were found for passive voice (i.e., making suggestions without necessarily being heard). These findings underscore the importance of being heard. It is not enough for organizations to implement policy that elicits suggestions from employees. Unless employees believe that their suggestions are being considered in the decision making process, there is no impact on increasing worker satisfaction or on diminishing turnover.

The inability of this research to detect possible moderating effects may be due to the relatively low levels of workplace stress. High levels of workplace stress were not found; therefore, the possible buffering effects of the organizational commitment, perceived organizational support and having voice would not have differential effects for all cases. A second possible reason for the absence of a moderating effect could be due to a reciprocal relationship between the variables. There is the possibility that the existence of organizational commitment, a perception of a supportive organization and an ability to voice concerns and have them heard may have already acted upon the stressors to, in effect, lower the levels of stress, thus restricting the range of stress experienced by participants prior to the time of study. Perhaps experimental, quasi-experimental, or longitudinal designs would more appropriately assess the causal relationship and buffering effects of these variables.

Affective and normative commitment, perceived organizational support, and active voice explained significant unique variance in job satisfaction and both measures of turnover intentions, above the variance explained by the six workplace stressors. Continuance commitment explained significant, unique, variance in the two measures of turnover only. The measure of passive voice had no significant association with any of

the outcome variables. Being heard was an important consideration when studying voice. Having – and taking – the opportunity to voice concerns is not sufficient to increase satisfaction and decrease turnover intentions. The value of voice is of importance primarily to the extent that individuals believe that their suggestions and concerns are taken into consideration when decisions are made (Klammer et al., 2002; Shapiro, 1993). Future research using this construct should ensure that the aspect of being heard is incorporated. These results indicate that all of these variables (i.e., organizational commitment, perceived organizational support, active voice) add to the satisfaction felt by employees and decreases their desire to leave.

#### *Job Satisfaction as Mediator*

The hypothesis that job satisfaction would mediate the relationship between workplace stressors and the moderating variables with both measures of turnover intentions was only partially supported. The association between workplace stressors and turnover intentions was reduced from explaining 8% of variance to 1% when the influence of job satisfaction was included. As well, the association between workplace stressors and thoughts of turnover was reduced from accounting for 11% of variance to .5% when the influence of job satisfaction was included. This finding supports the turnover model as presented by Hom and Griffeth (1995) where stressors were identified as antecedents of job satisfaction. It appears that although there is a direct relationship between workplace stressors and turnover intentions, when employees are satisfied with their jobs this relationship is reduced to non-significance. This finding also emphasizes the importance of assessing the workplace stressor to job satisfaction pathway rather than or in conjunction with the workplace stressor to turnover intention pathway when

attempting to determine the influence of stressors on employee's intentions to leave an organization.

The relationship between the moderator variables (organizational commitment, perceived organizational support, and voice) and both measures of turnover intentions was not supported. That is, although there was a slight reduction in the variance accounted for, the moderator variables were significantly related to turnover intentions directly. This finding also supports previous research that demonstrated that organizational commitment was a primary affective state that prompted withdrawal cognitions and contributed independently to the prediction of turnover intentions (Hom & Griffeth, 1995; Tett & Meyer, 1993). Consequently, it is evident that although job satisfaction remains an important predictor of turnover intentions, researchers must continue to study the various relationships of other factors that contribute to employees' intentions to seek alternative employment.

#### *Limitations and Implications for Future Research*

The data used in this study were archival. The use of archival data can be problematic due to the inability to test all facets of a construct that may be of interest. Research is limited to the data previously collected. Age of the data may also impact current relationships. That is, if archival data were collected prior to a critical life changing event, the relationships could conceivably be altered. However, it is unlikely that a catastrophic life changing event occurred, because less than a full year had elapsed between data collection and the commencement of this study. Furthermore, no major changes have occurred in military policy to invalidate the constructs used. Future research can incorporate more stringent and varied items to assess more aspects of the

constructs to garner a more comprehensive understanding of the relationships revealed in this study.

Finally, the construct of active voice was measured using a single item. The use of single-item versus multi-item scales attenuated the relationship between attitudes and turnover (Tett & Meyer, 1983). The survey used in this study had four items related to voice; however, only one item included the aspect of being heard. The other three voice items were used as an alternate measure of voice that did not include being heard (i.e., passive voice). Being heard is an important aspect of voice because significance was only realized when this aspect was included. The criticism of using a one-item scale is weakened because significant unique variance was explained in two of three outcome variables (i.e., job satisfaction and thoughts of turnover). Future study should ensure that a multi-item scale is used to ensure that researchers can obtain a better understanding of the relationships. In addition, future research using voice should ensure that the aspect of being heard is assessed.

#### *Recommendations and Practical Implications for the CF*

The current study demonstrated that workplace stressors other than role conflict and role ambiguity are important variables. The results supplement our current understanding of the impact of workplace stressors on job outcomes. The enhancement of our current understanding was accomplished by the inclusion of four role stressors, rather than merely the traditionally used role conflict and ambiguity, as well as the stressors of attitudes towards changes in organizational image and feelings toward recruiting incentives. Role insufficiency was consistently a strong and unique predictor of job satisfaction, turnover intentions, and thoughts of turnover, whereas role ambiguity only



contributed minor increases in prediction. Restricting work stressor research to the study of role ambiguity and role conflict is not necessarily prudent. For this sample of military members, role insufficiency appears to be the strongest unique predictor. Considering this relationship, it is recommended that the CF take steps to ensure that members are challenged and employed in positions that allow them to use their skills, knowledge, training, and experience. Continued underemployment may result in persistent decreases in satisfaction and increases in employee's desire to leave the organization.

The addition of variables assessing stress related to attitudes towards changes in organizational values and perceptions of unfairness (feeling toward recruiting incentives) explained incremental variance beyond that of the traditional role stressors. This finding provides support for the notion that the antecedents to turnover are multifaceted. Past research has tended to focus its definition of workplace stressors on an insufficient number of facets; therefore, the inclusion of new facets can enhance our understanding of relationships. In particular, future research should continue to assess the effects of recruiting incentives on current employees' attitudes and behaviours in such areas as: organizational citizenship behaviour; co-worker cohesion; leadership; culture; socialization; and, satisfaction with various aspects of the organization. The CF should conduct this research prior to extending the current practice of offering recruiting incentives to some employees.

Furthermore, few studies have considered organizational level factors as moderators of workplace stressors and turnover intentions. This study attempted to add to the current understanding of turnover models by focusing on the distal relationship of workplace stressors to known relationships of job satisfaction and turnover intentions in

turnover models and then considering factors that are controllable by organizations to possibly avert some unnecessary voluntary turnover. Although moderator effects were not meaningful, the restricted range of reported stress levels may have hindered the ability to detect any buffering effects. Future research should continue to determine what organizations can do to mitigate the negative effects of stressors, particularly those that may be uncontrollable. This research suggests that the mitigation of poor job outcomes as a result of workplace stressors may be accomplished by providing a perception of a work environment that is supportive and receptive to employee suggestions, and that instills a sense of loyalty and affection, adds to the satisfaction felt by employees, and decreases incumbents' desire to leave. The CF should continue to implement policies that enhance the perceptions of organizational support among members and should ensure that members' concerns are being heard when suggestions for work improvements are made.

### Conclusion

This study examined the role of workplace stressors as antecedent factors of both job satisfaction and turnover intentions. The study also examined factors that may mitigate these relationships. Although workplace stressors did possess a significant association with turnover intentions, this relationship was better explained through the mediating influence of job satisfaction. This study contributes to the understanding of the complexity of the antecedents of job satisfaction and turnover intentions by considering the role of non-traditional stressors. That is, attitudes toward changes in organizational values and feelings toward recruiting incentives provided significant unique prediction. These findings emphasize the importance of considering the impact on existing employees when implementing new programs or changing existing policy.

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Appendix A



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Research Ethics Board

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**TO WHOM IT MAY CONCERN**

I have examined the study proposal entitled "Turnover in the Military: Impact of Workplace Stressors" submitted by Marie Norris as the Principal Investigator and have determined that because i) this study is solely based on archival data collected by the Department of National Defence (DND) and involves no contact with human subjects, ii) because the original study from which data were obtained received DND ethics approval, and iii) because the responses of the original subjects were made completely anonymously, this study need not be submitted for authorization by the Research Ethics Board of Saint Mary's University.

A handwritten signature in black ink, appearing to read "John C. O'C. Young".

**John C. O'C. Young**  
Chairperson, SMU REB

## Appendix B

## LE TEXTE FRANÇAIS SUIT

Good day everyone,

The CF is conducting a series of consultation with its members in order to gather your opinions regarding many aspects of your work including job satisfaction, career development, and intention to stay or leave the CF and other issues. The Army and the Air Force have identified some occupations where this information is very important and your occupation is one of them. I invite you right now to read the attached letter from LGen Jeffery, Chief of the Land Staff (CLS) or MGen Bastien, Assistant Chief of Air Staff (ACAS) (according to your environment), which explains the purpose of the consultation and the importance of getting your ideas.

The consultation is being done through an electronic survey. The link to the English survey is below (in access 97 or access 2000). When you will click on the link, the survey will be automatically downloaded on your computer, just follow the download instructions. Make sure to choose the "save this program to disk" option and then save it to your harddrive or desktop. You might notice that the survey has been put on the Chief of the Maritime Staff web site. The survey has been put on this web site for convenience. This survey is for all members who receive this email and not only for Navy personnel. Your participation is specifically requested. Once completed, follow the sending instructions at the end of the survey.

It is VERY IMPORTANT that you participate because the results of this consultation will be used to improve your well-being and that of the CF. This is your opportunity to tell CLS or CAS what you like and what you would like to see improved in your work environment.

Maybe some of you will be concerned with the confidentiality of your answers since it is done electronically. I can assure you that as soon as the IT person receives your e-mails, your name and answers (which are a set of numbers that makes no sense if you do not have the questionnaire and the IT person does not have it) are separated. No one will ever be able to match you to your answers again.

Please follow the link, it is easy and this new technology makes the process more fun and interactive. If you encounter problem with the electronic survey do not hesitate to contact the OPI for technical assistance at the phone number provided in the survey. The survey will stay on the Navy web site for some weeks, however we would appreciate if you could answer the survey in the next few days, if you can. Thanks for helping us helping you and the CF.

Access 2000 format <[http://navy.dwan.dnd.ca/survey/attrition2000\\_e.exe](http://navy.dwan.dnd.ca/survey/attrition2000_e.exe)>

Access 97 format <[http://navy.dwan.dnd.ca/survey/attrition97\\_e.exe](http://navy.dwan.dnd.ca/survey/attrition97_e.exe)>

## TEXTE FRANÇAIS

Bonjour à tous/toutes,

Les FC conduisent une série de consultation avec ses membres dans le but d'obtenir votre opinion sur plusieurs aspects de votre travail incluant votre satisfaction avec votre emploi, votre développement de carrière, votre intention de quitter ou non les FC et plusieurs autres. L'Armée et la Force Aérienne ont identifié quelques groupes professionnels militaires où ce type d'information est très important et votre groupe professionnel militaire est l'un d'eux. Je vous invite maintenant à lire la lettre du LGen Jeffery, Chef d'État-Major de l'Armée de Terre (CEMAT) ou du MGen Bastien, Chef d'État-Major Adjoint de la Force Aérienne (CEMAFA) (selon votre environnement), qui explique les objectifs de la consultation et l'importance d'obtenir votre opinion.

La consultation se fait sous la forme d'un questionnaire électronique. Le lien pour se rendre au questionnaire français apparaît plus bas (en format Access 97 et 2000). En cliquant sur le lien, le questionnaire est automatiquement téléchargé sur votre ordinateur, vous n'avez qu'à suivre les instructions. Assurez-vous de choisir l'option "Save this program to disk" pour ensuite le sauvegarder sur votre disque dur ou "desktop". Vous noterez peut-être que le questionnaire a été mis sur la page web du Chef d'État Major des Forces Maritimes. Le questionnaire a été placé sur ce site pour des raisons pratiques seulement. Ce sondage est pour tous les militaires qui reçoivent ce courriel et non pas seulement pour le personnel de la Marine. Une fois complété suivez les instructions d'envoi à la fin du questionnaire.

Il est TRÈS IMPORTANT que vous participiez à cette consultation car les résultats de cette consultation seront utilisés pour améliorer votre qualité de vie au travail. C'est votre opportunité de dire au CEMAT ou au CEMFA ce que vous appréciez et ce que vous aimeriez voir améliorer dans votre milieu de travail.

Il est possible que certain(e)s parmi vous soyez inconfortables avec l'idée de faire un sondage électronique pour des raisons de confidentialité de vos réponses. Je peux vous assurer qu'aussitôt que la personne du service d'informatique reçoit votre courriel, votre nom et vos réponses (qui sont une série de chiffres qui ne veulent rien dire sans le questionnaire et cette personne n'y a pas accès) sont séparés. Jamais plus personne ne sera capable de lier votre nom avec vos réponses.

Vous n'avez qu'à suivre le lien, c'est facile et cette nouvelle technologie rend la procédure plus intéressante et interactive. Si vous rencontrez des problèmes avec le questionnaire électronique n'hésitez pas à contacter la personne ressource pour l'assistance technique dont le numéro de téléphone apparaît sur le questionnaire. Le questionnaire restera sur la page web de la Marine pour plusieurs semaines, cependant nous aimerions recevoir votre questionnaire dans les prochains jours, si vous le pouvez. Merci de nous aider à vous aider.

Format Access 2000 <[http://navy.dwan.dnd.ca/survey/attrition2000\\_f.exe](http://navy.dwan.dnd.ca/survey/attrition2000_f.exe)>

Format Access 97 <[http://navy.dwan.dnd.ca/survey/attrition97\\_f.exe](http://navy.dwan.dnd.ca/survey/attrition97_f.exe)>

## Appendix C

7000-1 (DLP 7)

7000-1 (DPFT 7)

12 November 2002

Le 12 novembre 2002

Distribution List

Liste de distribution

CANADIAN FORCES RETENTION  
QUESTIONNAIRE (ARMY)QUESTIONNAIRE SUR LE MAINTIEN  
DE L'EFFECTIF DES FORCES  
CANADIENNES (ARMÉE DE TERRE)Reference: CF Retention Questionnaire  
(attached)Référence : Questionnaire sur le maintien  
de l'effectif des Forces canadiennes  
(ci-joint)

1. In recent years, significant efforts have been expended on developing programs to meet member's needs, improve quality of life for our personnel and maintain the Canadian Forces (CF) as an employer of choice. While there have been numerous improvements, personnel retention remains a crucial challenge and a key component of the CF's continued viability.

1. Au cours des dernières années, beaucoup d'efforts ont été déployés afin d'élaborer des programmes qui répondent aux besoins des militaires, améliorent la qualité de vie de notre personnel et font en sorte que les Forces canadiennes (FC) demeurent un employeur de choix. Bien qu'il y ait eu de nombreuses améliorations, le maintien de l'effectif demeure un défi majeur et un élément clé de la viabilité continue des FC.

2. Although personnel retention is an issue across the CF, it is most acute in 33 of the 114 occupations. Of those 33 occupations 11 come from the Army. Among the 11 critical Army occupations, four have been selected for further analysis. The following is an electronic questionnaire to investigate your expectations and attitudes on issues that influence your decision to stay or leave the CF. To be effective, it will require that you participate. Your response will be used to further develop career employment options within your branch.

2. Si le maintien de l'effectif est un défi dans l'ensemble des FC, il est particulièrement sérieux dans 33 des 114 groupes professionnels militaires. De ces 33 groupes professionnels, 11 sont propres à l'Armée de terre. Parmi les 11 groupes professionnels critique de l'Armée, quatre seront analysés. Vous trouverez ci-après un questionnaire électronique qui vous interroge sur vos attentes et vos attitudes à l'égard des questions ayant une incidence sur votre décision de demeurer membre des FC ou de quitter. Pour que ce questionnaire soit efficace, vous devrez y répondre. Vos réponses serviront à élaborer de nouvelles options de carrière au sein de vos branches.

3. I wish to move quickly with this work and you are in control of this very important step. This is your opportunity to express your point of view. I strongly encourage you to take some time during your workday to fill out this questionnaire. I would like your response and comments back within a two week period. Updates and news of the issues will be maintained on the CF Human Resources Website ([http://hr.d-ndhq.dnd.ca/engraph/milhome\\_e.asp](http://hr.d-ndhq.dnd.ca/engraph/milhome_e.asp)). My sincerest thanks in advance for your efforts to make this endeavour a success.

Electronically signed  
Le lieutenant-général M.K. Jeffery  
Lieutenant-General

#### Distribution List

All members of MOC 24 (Engr)  
All members of MOC 42 (CELE)  
All members of MOC 43 (EME)  
All members of MOC 215 (Sig OP)

3. J'espère agir rapidement dans ce dossier, et c'est vous qui contrôlez cette étape très importante. Voici votre occasion de faire part de votre point de vue. Je vous encourage fortement à prendre le temps qu'il faut pendant vos heures de travail pour remplir ce questionnaire. Je souhaite recevoir vos réponses et vos commentaires d'ici deux semaines. Des nouvelles et des mises à jour sur ces enjeux seront affichées sur le site intranet des Ressources humaines des FC ([http://hr.d-ndhq.dnd.ca/frgraph/milhome\\_f.asp](http://hr.d-ndhq.dnd.ca/frgraph/milhome_f.asp)). Je vous remercie sincèrement à l'avance pour les efforts que vous fournirez pour faire de ce projet une réussite.

#### Liste de distribution

Tous les membres du GPM 24 (Ingr)  
Tous les membres du GPM 42 (GE Comm)  
Tous les membres du GPM 43 (GEM)  
Tous les membres du GPM 215 (OP Trans)



## Appendix D

**CF RETENTION  
Questionnaire****Purpose:**

- The purpose of this project is to explore the underlying factors of personnel retention in the CF. At the request of the Branch Advisor, this survey has been initiated by the Director Military Employment Policy (DMEP) to more clearly determine what your concerns are about work and the organization. More particularly, we want to know about your level of satisfaction with different aspects of your work, your level of commitment to the organization, the impact of work on your personal and family life and your career intentions within the Canadian Forces (CF).

**The Importance  
of Your  
Participation:**

- Your participation in completing this questionnaire, or any specific question, is voluntary. However, if the questionnaire is to provide a true picture of the organizational climate, the *participation of everyone* who receives a questionnaire is *very important*.
- Recognizing the importance of the questionnaire, the Branch Advisor has authorized completion of this questionnaire during work hours, should you so wish
- While the questionnaire may seem lengthy, all components are essential and you will find that most are quick and simple to answer.
- For the results to be useful, it is critical that your answers be honest and accurate in reflecting your beliefs and feelings.

**Ethics and  
Guarantee of  
Confidentiality:**

- In participating in this project, you will be required to complete an electronic questionnaire that you will send back (by e-mail) to DMEP. Data collected will be stored for a period of five years. Under no circumstance will your name or your personal information be linked to your answers. The results will be analysed and presented in an aggregate fashion rather than individual. This study is approved by DND and by the "Université du Québec in Outaouais" ethics comity.
- I recognize that:
  - 1-My participation is under voluntary basis and that I can at any time decide not to complete the questionnaire without having to explain why to anyone.
  - 2-There will be no consequences to my career or my job whether I decide to participate in this study or not.
  - 3-Information provided will be kept confidential at all times.

**Administrative  
information**

- It will take you approximately 40 minutes to complete the questionnaire. If you have any questions or worries about this questionnaire, do not hesitate to contact one of the following researcher:
  - 1-Project manager: Maj Martin Villeneuve (613) 996-5331 or CSN 846-5331
  - 2-Ethics comity: Mr. Stephane Bouchard (Université du québec en Outaouais) (819) 595-3900 ext. 2360

After having read this information, I agree to participate in this project.

Your participation is appreciated.

Major Martin Villeneuve  
DMEP  
NDHQ, Ottawa

## Section 1

## Career intentions

PLEASE INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE FOLLOWING STATEMENTS

	1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree	
1. I intend to leave the CF as soon as I attain 20 years of service	1	2	3	4	5	6	N A Undecided
2. I intend to stay with the CF/DND as long as I can	1	2	3	4	5	6	Undecided
3. I intend to leave the CF/DND as soon as another job becomes available	1	2	3	4	5	6	Undecided

4. Do you intend to leave the CF within... (please answer for all three timelines)

<u>A year?</u>	<u>Three years?</u>	<u>Five years?</u>
<input type="checkbox"/> Definitely not	<input type="checkbox"/> Definitely not	<input type="checkbox"/> Definitely not
<input type="checkbox"/> Probably not	<input type="checkbox"/> Probably not	<input type="checkbox"/> Probably not
<input type="checkbox"/> Probably yes	<input type="checkbox"/> Probably yes	<input type="checkbox"/> Probably yes
<input type="checkbox"/> Definitely yes	<input type="checkbox"/> Definitely yes	<input type="checkbox"/> Definitely yes
<input type="checkbox"/> Uncertain	<input type="checkbox"/> Uncertain	<input type="checkbox"/> Uncertain

5. How actively have you searched for a job with another organization in the last year?

- ☐ Not at all  
☐ Inactively  
☐ Somewhat actively  
☐ Actively  
☐ Very actively

6. How many jobs outside of the (CF) have you applied for in the last year?

--	--

7. How easy would it be for you to find a job
- comparable
- as the one you have now with another employer?

- ☐ Very difficult  
☐ Difficult  
☐ Easy  
☐ Very easy  
☐ Do not know

8. How easy would it be for you to find a
- better
- job with another employer?

- ☐ Very difficult  
☐ Difficult  
☐ Easy  
☐ Very easy  
☐ Do not know

10. When you first joined, how long did you intend to stay in the CF? \_\_\_\_\_ years

## Section 2

USING THE SCALE BELOW, PLEASE INDICATE THE FREQUENCY OF OCCURENCE THAT CORRESPONDS WITH EACH OF THE FOLLOWING STATEMENTS.

1 Never	2 Once in a while	3 Sometimes	4 Frequently	5 Always	
1. I am expected to do more work than is reasonable	1	2	3	4	5
2. I work under tight deadlines	1	2	3	4	5
3. My job requires me to work on several equally important tasks at once	1	2	3	4	5
4. My work fits my interests and skills	1	2	3	4	5
5. I have enough responsibility in my work	1	2	3	4	5
6. My talents are being used in my work	1	2	3	4	5
7. When faced with several tasks at once I know which should be done first	1	2	3	4	5
8. I know where to begin a new task when it is assigned to me	1	2	3	4	5
9. The priorities of my work are clear to me	1	2	3	4	5
10. My supervisors have conflicting ideas about what I should be doing	1	2	3	4	5
11. I have more than one person telling me what to do	1	2	3	4	5
12. I generally have divided loyalties at work	1	2	3	4	5

## Section 3

PLEASE INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE FOLLOWING STATEMENTS

1	2	3	4	5	6	
Strongly dissatisfied	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	
1. I often try to bring about improved procedures for the section or the unit	1	2	3	4	5	6
2. I often try to change unit rules or policies that are non-productive or counterproductive	1	2	3	4	5	6
3. I often make constructive suggestions through the chain of command for improving how things operate within my work environment	1	2	3	4	5	6
4. My suggestions get acknowledged by the local chain of command	1	2	3	4	5	6

## Section 4

FOR THE FOLLOWING SECTION, YOU ARE REQUIRED TO COMPLETE EACH QUESTION IN TWO STEPS. FIRST (STEP ONE) INDICATE HOW SATISFIED YOU ARE WITH THE FOLLOWING ASPECTS. THEN (STEP 2) INDICATE HOW THIS IS AFFECTING YOUR DECISION TO STAY OR LEAVE THIS ORGANIZATION.

1 Completely dissatisfied	2 Dissatisfied	3 Somewhat Dissatisfied	4 Somewhat satisfied	5 Satisfied	6 Completely satisfied
---------------------------------	-------------------	-------------------------------	----------------------------	----------------	------------------------------

*How satisfied are you with:*

**Current job**

1. Your job security	1	2	3	4	5	6
2. Your feeling of accomplishing meaningful work	1	2	3	4	5	6
3. Your opportunities for becoming more proficient in a specialised type of work	1	2	3	4	5	6
4. The variety in your work	1	2	3	4	5	6
5. The logic of policies and regulations	1	2	3	4	5	6
6. The working hours you work per week	1	2	3	4	5	6
7. Your physical working environment	1	2	3	4	5	6
8. The resources generally allocated to do your job	1	2	3	4	5	6
9. How challenging your work is to you	1	2	3	4	5	6
10. The opportunities to gain experience in your field of choice	1	2	3	4	5	6
11. The importance given to your job by the organisation	1	2	3	4	5	6
12. The opportunities to use initiative	1	2	3	4	5	6
13. The amount of work you have to do	1	2	3	4	5	6
14. The type of work you do	1	2	3	4	5	6
15. The opportunities you get to use your abilities	1	2	3	4	5	6
16. The decision making opportunities you have	1	2	3	4	5	6
17. The opportunities you have to work towards defined objectives	1	2	3	4	5	6
18. The opportunities you have to practice what you have been trained to do	1	2	3	4	5	6
19. The amount of bureaucracy (paper work) in the CF	1	2	3	4	5	6
20. The feedback you receive on your work performance	1	2	3	4	5	6
21. The amount of fun you get from your job	1	2	3	4	5	6
22. Your overall work and personal life balance	1	2	3	4	5	6
23. Overall, how satisfied are you with your job?	1	2	3	4	5	6

**Section 5**

FOR THE FOLLOWING SECTION, YOU ARE REQUIRED TO COMPLETE EACH QUESTION IN TWO STEPS. FIRST (STEP ONE) INDICATE YOUR LEVEL OF AGREEMENT FOR EACH STATEMENT. THEN (STEP 2) INDICATE HOW THIS IS AFFECTING YOUR DECISION TO STAY OR LEAVE THIS ORGANIZATION. (FOR EXAMPLE, YOU MIGHT AGREE WITH THE STATEMENT STATING THAT THE CF HAS BECOME TOO POLITICAL BUT CONSIDER THIS AS AN INSIGNIFICANT FACTOR IN YOUR DECISION TO STAY OR LEAVE THE CF.)

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree	
1. The CF has become too political	1	2	3	4	5	6
2. The CF is losing it's military attitude and is becoming too civilianized	1	2	3	4	5	6
3. Too many tasks are being contracted out	1	2	3	4	5	6
4. The CF have a positive future	1	2	3	4	5	6
5. The CF are losing their military traditions and customs	1	2	3	4	5	6
6. The CF are putting too much emphasis on superficial image and not enough emphasis on members equipment and training	1	2	3	4	5	6
7. My occupation has a good future in the CF	1	2	3	4	5	6

## Section 6

**THIS SECTION CONCERNS YOUR COMMITMENT TOWARD THE CANADIAN FORCES. INDICATE THE EXTENT TO WHICH YOU DISAGREE OR AGREE WITH THE FOLLOWING STATEMENTS.**

	1	2	3	4	5	6
	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1. Even if I did the best possible job, the CF would fail to notice	1	2	3	4	5	6
2. The CF cares about my general satisfaction at work	1	2	3	4	5	6
3. The CF disregards my best interest when it makes decisions that affect me	1	2	3	4	5	6
4. The CF really cares about my well being	1	2	3	4	5	6
5. I would be happy to spend the rest of my career in the CF	1	2	3	4	5	6
6. It would be hard for me to leave the CF right now, even if I wanted to	1	2	3	4	5	6
7. I do not feel any obligation to remain with my current employer	1	2	3	4	5	6
8. I really feel as if the CF's problems are my own	1	2	3	4	5	6
9. Too much of my life would be disrupted if I decided I wanted to leave the CF now	1	2	3	4	5	6
10. Even if it was to my advantage, I do not feel it would be right to leave the CF now	1	2	3	4	5	6
11. I do not feel like "part of the family" in the CF	1	2	3	4	5	6
12. Right now, staying with the CF is a matter of necessity as much as desire	1	2	3	4	5	6
13. I would feel guilty if I left the CF now	1	2	3	4	5	6
14. I do not feel "emotionally attached" to the CF	1	2	3	4	5	6
15. I believe that I have too few options to consider leaving the CF	1	2	3	4	5	6
16. The CF deserves my loyalty	1	2	3	4	5	6
17. The CF has a great deal of personal meaning for me	1	2	3	4	5	6
18. One of the few negative consequences of leaving The CF would be the scarcity of available alternatives	1	2	3	4	5	6
19. I would not leave the CF right now because I have a sense of obligation to people in my unit	1	2	3	4	5	6
20. I do not feel a strong sense of belonging to the CF	1	2	3	4	5	6
21. If I had not already put so much of myself into the CF, I might consider working elsewhere	1	2	3	4	5	6
22. I owe a great deal to the CF	1	2	3	4	5	6

## Section 8

**RECENTLY, THE CF HAS OFFERED RECRUITING INCENTIVES TO ATTRACT NEW RECRUITS. THE INCENTIVES HAVE BEEN OFFERED TO SOME RECRUITS JOINING IN SPECIFIC UNDERMANNED OCCUPATIONS. THESE INCENTIVES IN AVERAGE REACH FROM 20 000\$ TO 40 000\$ FOR TRAINED RECRUITS.**

- Were you aware of the recruitment incentives that have been offered to new recruits?
  - ☐ Yes
  - ☐ No
- Have you received a recruitment incentive?
  - ☐ Yes ⇒ What did you receive? \_\_\_\_\_

☐ No

WHEN YOU THINK ABOUT THE RECRUITMENT INCENTIVES GIVEN TO RECRUITS  
JOINING THE CF, HOW DO YOU FEEL?

1 Not at all	2 A little	3 Somewhat	4 Quite a bit	5 Very much
-----------------	---------------	---------------	------------------	----------------

1. Contented	1	2	3	4	5
2. Angry	1	2	3	4	5
3. Resentful	1	2	3	4	5
4. Satisfied	1	2	3	4	5
5. Bitter	1	2	3	4	5

## Section 9

What is your age? \_\_\_\_\_

1. What is your gender?

☐ Male  
☐ Female

2. What is your status?

☐ Regular Force  
☐ Reserve Force

3. How many years and months have you in the CF:
- 
- (e.g. 2 years and 5 months)

Years	Months

4. What is your MOC? (e.g. 23A)

--	--	--

5. What is your rank?

<input type="checkbox"/> Pte/AS	<input type="checkbox"/> Ocdt
<input type="checkbox"/> Cpl/LS	<input type="checkbox"/> 2Lt/ASLt
<input type="checkbox"/> MCpl/MS	<input type="checkbox"/> Lt/SLt
<input type="checkbox"/> Sgt/PO2	<input type="checkbox"/> Capt/Lt(N)
<input type="checkbox"/> WO/PO1	<input type="checkbox"/> Maj/LCdr
<input type="checkbox"/> MWO/CPO2	<input type="checkbox"/> LCol/Cdr
<input type="checkbox"/> CWO/CPO1	<input type="checkbox"/> Col/Capt (N)
	<input type="checkbox"/> Gen/Flag Offr

6. What is your current term of service?

☐ Basic Engagement (BE)  
☐ Second Basic Engagement (2<sup>nd</sup> BE)  
☐ Short Service Engagement (SSE)  
☐ Short Engagement (SE)  
☐ Fixed Period of Service (FPS)  
☐ Intermediate Engagement (IE)  
☐ Continuing Engagement (CE)  
☐ Extension (EXT)  
☐ Indefinite Period of Service (IPS)

7. At this present time, are you serving a period of obligatory service?

☐ Yes  
☐ No

8. What is your first official language

☐ English  
☐ French

9. What is your marital status?

☐ Married / Common Law / Partner  
☐ Single (go to question 14)  
☐ Separated / Divorced (go to question 14)  
☐ Widowed (go to question 14)

10. Which base do you belong to? \_\_\_\_\_

11. Are you and your Partner living in the same city

☐ Yes  
☐ No

13. If you answered married or living common law, what is your spouse's employment status?

☐ In Service Employed full-time (Reg. or Res. Force)  
☐ In Service Employed part-time  
☐ Civilian Employed full-time  
☐ Civilian Employed part-time  
☐ Student  
☐ Seeking employment  
☐ Homemaker  
☐ Self Employment  
☐ Other, please specify :

14. Do you have the legal or/and financial responsibility for one or more persons including spouse, child(ren), elderly person, joint custody, visitation rights?

☐ Yes  
☐ No (go to question 15)

15. Describe for which you have legal or/and financial responsibility (check more than one if applicable)

☐ Spouse  
☐ Child(ren)  
☐ Elderly relative/friend  
☐ Other, please specify  
 \_\_\_\_\_

16. Please indicate your highest level of high school education.

☐ High school credits, no diploma  
☐ High school equivalency (i.e. GED)  
☐ High school graduate

17. Please indicate your highest level of study at Community college or CEGEP.

☐ None  
☐ College or CEGEP credits, no diploma  
☐ College or CEGEP graduate

18. Please indicate your highest level of university studies.

☐ None  
☐ University credits  
☐ Bachelor's degree  
☐ Graduate degree courses  
☐ Masters degree  
☐ Doctoral degree

## Appendix E

*Correlations of variables and descriptive statistics, IE contract group (N = 1088, listwise deletion)*

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Job Satisfaction	3.90	.85	.94															
2. TI 1	2.27	1.04	-.34*	.83														
3. TI 2	4.06	1.47	-.45*	.62*	.64													
4. Age	37.32	3.81	.03	.19*	-.27*	n/a												
<i>Role Stressors</i>																		
5. Ambiguity	1.94	.65	-.35*	.08	.13*	-.03	.76											
6. Conflict	2.61	.92	-.52*	.24*	.29*	-.04	.32*	.75										
7. Insufficiency	2.29	.79	-.59*	.17*	.25*	-.02	.29*	.21*	.75									
8. Overload	3.55	.79	-.23*	.08	.14*	-.06	.12*	.34*	-.23*	.79								
9. Org. Image	4.57	.79	-.26*	.13*	.14*	.00	.02	.21*	.11*	.15*	.75							
10. Incentives	3.11	1.04	-.21*	.18*	.17*	-.03	.00	.18*	.08	.09	.34*	.88						
<i>Commitment</i>																		
11. Affective	3.70	.96	.49*	-.40*	-.52*	-.06	-.22*	-.32*	-.32*	-.04	-.18*	-.25*	.82					
12. Continuance	3.48	.91	-.05	-.29*	-.14*	-.01	.05	.01	.03	-.03	.05	.07	.06	.77				
13. Normative	3.34	.98	.43*	-.40*	-.45*	-.08	-.15*	-.24*	-.27*	-.04	-.13*	-.22*	.72*	.20*	.81			
14. POS	3.41	.97	.59*	-.32*	-.39*	-.04	-.16*	-.39*	-.31*	-.18*	-.33*	-.32*	.60*	-.03	.51*	.83		
15. Active Voice	4.00	1.19	.55*	-.20*	-.27*	-.00	-.28*	-.42*	-.39*	-.05	-.18*	-.17*	.39*	-.03	.30*	.48*	n/a	
16. Passive Voice	4.76	.82	.08	-.03	-.05	.00	-.15*	.03	-.25*	.34*	.07	-.04	.19*	-.06	.11*	.07	.26*	.79

Note: \*  $p < .001$ ; ( $r \geq .05$ ,  $p < .05$ ;  $r \geq .07$ ,  $p < .01$ ); Cronbach's alpha on the diagonal; TI 1 = Turnover Intentions; TI 2 = Thoughts about intentions to turnover; POS = Perceived Organizational Support



## Appendix F

Correlations of variables and descriptive statistics, IPS contract group ( $N = 1088$ , listwise deletion)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Job Satisfaction	4.01	.80	.94															
2. TI 1	2.77	1.07	-.33*	.83														
3. TI 2	3.52	1.46	-.42*	.62*	.64													
4. Age	42.76	3.94	.09	.16*	-.17*	n/a												
<i>Role Stressors</i>																		
5. Ambiguity	1.93	.64	-.30*	.08	.12*	-.05	.76											
6. Conflict	2.51	.86	-.45*	.21*	.19*	-.06	.26*	.75										
7. Insufficiency	2.24	.74	-.58*	.18*	.26*	-.04	.21*	.18*	.75									
8. Overload	3.55	.79	-.16*	.02	.05	-.06	.13*	.34*	-.29*	.79								
9. Org. Image	4.54	.76	-.27*	.12*	.15*	-.09	-.02	.20*	.13*	.10	.75							
10. Incentives	2.95	1.04	-.22*	.11*	.15*	-.14*	.04	.17*	.12	.02	.33*	.88						
<i>Commitment</i>																		
11. Affective	3.88	.94	.46*	-.41*	-.44*	.02	-.11*	-.19*	-.26*	-.06	-.18*	-.25*	.82					
12. Continuance	3.13	.92	.00	-.27*	-.14*	-.08	.05	.03	.05	-.11*	.00	.01	.02	.77				
13. Normative	3.32	.96	.37*	-.39*	-.43*	.05	-.05	-.16*	-.27*	.06	-.17*	-.19*	.70*	.21*	.81			
14. POS	3.58	.92	.53*	-.34*	-.33*	.03	-.15*	-.32*	-.27*	-.14*	-.33*	-.34*	.51*	-.03	.40*	.83		
15. Active Voice	4.15	1.13	.53*	-.24*	-.27*	-.01	-.20*	-.37*	-.38*	-.02	-.14*	-.18*	.33*	-.06	.25*	.43*	n/a	
16. Passive Voice	4.82	.75	.09	-.04	-.08	.00	-.14*	-.06	-.26*	.32*	.05	-.07	.20*	-.08	.08	.07	.24*	.79

Note: \*  $p < .001$ ; ( $r \geq .05$ ,  $p < .05$ ;  $r \geq .07$ ,  $p < .01$ ); Cronbach's alpha on the diagonal; TI 1 = Turnover Intentions; TI 2 = Thoughts about intentions to turnover; POS = Perceived Organizational Support

## Appendix G

*Hierarchical Moderated Regression, moderating variable Affective Commitment (IE Group: Job Satisfaction  $N = 1098$ ; Turnover Intentions  $N = 1124$ ; Thoughts of turnover  $N = 1088$ ); (IPS Group: Job Satisfaction  $N = 1111$ ; Turnover Intentions  $N = 1128$ ; Thoughts of turnover  $N = 708$ )*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.01	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.15*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07	
3	Org. Stress		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	Affective Commitment	.22*	.04*	.24*	.05*	-.33*	.09*	-.35*	.11*	-.46*	.17*	-.39*	.13*
5	Interactions		.00		.00		.01		.01		.00		.02
	x Ambiguity	-.05		.01		.00		-.03		.00		-.07	
	x Conflict	.06		-.00		.07		.09		.03		.11	
	x Insuff.	-.00		.03		-.06		-.03		.02		-.02	
	x Overload	.01		.01		-.06		-.02		.03		-.01	
	x Org Image	-.03		-.01		.00		-.01		-.00		.02	
	x Incentives	.01		.00		-.06		.03		-.03		.00	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1084) = 134.68, p < .001$ ; Turnover Intentions,  $F(14, 1110) = 22.77, p < .001$ ; Thoughts of turnover,  $F(14, 1074) = 33.79, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1097) = 111.67, p < .001$ ; Turnover Intentions,  $F(14, 1128) = 22.79, p < .001$ ; Thoughts of turnover,  $F(14, 694) = 20.92, p < .001$ .

## Appendix H

*Hierarchical Moderated Regression, moderating variable Continuance Commitment (IE Group: Job Satisfaction N = 1097; Turnover Intentions N = 1123; Thoughts of turnover N = 1087); (IPS Group: Job Satisfaction N = 1104; Turnover Intentions N = 1122; Thoughts of turnover N = 704)*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.03	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.13*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07	
3	Org. Stress		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	Continuance Commitment	-.02	.00	.02	.00	-.30*	.09*	-.28*	.08*	-.17*	.03*	-.17*	.03*
5	Interactions		.00		.00		.01		.00		.01		.00
	x Ambiguity	-.00		.00		.02		-.02		.03		.04	
	x Conflict	-.02		-.00		.02		.02		.03		-.03	
	x Insuff.	.00		.02		-.06		-.05		-.03		-.03	
	x Overload	-.03		-.01		-.00		-.02		.05		-.04	
	x Org Image	.05		.03		.04		-.02		-.02		.00	
	x Incentives	-.00		.02		-.03		-.00		-.06		.02	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1083) = 113.43, p < .001$ ; Turnover Intentions,  $F(14, 1109) = 23.36, p < .001$ ; Thoughts of turnover,  $F(14, 690) = 10.53, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1090) = 92.58, p < .001$ ; Turnover Intentions,  $F(14, 1108) = 18.76, p < .001$ ; Thoughts of turnover,  $F(14, 690) = 10.53, p < .001$ .

## Appendix I

*Hierarchical Moderated Regression, moderating variable Normative Commitment (IE Group: Job Satisfaction N = 1097; Turnover Intentions N = 1123; Thoughts of turnover N = 1087); (IPS Group: Job Satisfaction N = 1108; Turnover Intentions N = 1125; Thoughts of turnover N = 704)*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.03	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.13*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07	
3	Org. Stress		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	Normative Commitment	.19*	.03*	.17*	.03*	-.31*	.08*	-.35*	.11*	-.38*	.12*	-.37*	.12*
5	Interactions		.00		.00		.00		.01		.00		.01
	x Ambiguity	-.03		-.01		.00		-.02		.01		-.03	
	x Conflict	.04		.02		.04		.07		.05		.09	
	x Insuff.	.02		.04		-.03		-.01		-.01		-.01	
	x Overload	-.00		.00		-.07		.01		.01		-.03	
	x Org Image	-.00		-.00		-.00		.00		-.00		.02	
	x Incentives	-.01		.02		-.05		.02		-.04		-.00	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1083) = 129.16, p < .001$ ; Turnover Intentions,  $F(14, 1109) = 22.08, p < .001$ ; Thoughts of turnover,  $F(14, 1073) = 27.50, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1094) = 102.08, p < .001$ ; Turnover Intentions,  $F(14, 1111) = 22.83, p < .001$ ; Thoughts of turnover,  $F(14, 690) = 18.19, p < .001$ .

## Appendix J

*Hierarchical Moderated Regression, moderating variable Perceived Organizational Support. (IE Group: Job Satisfaction N = 1103; Turnover Intentions N = 1131; Thoughts of turnover N = 1095); (IPS Group: Job Satisfaction N = 1118; Turnover Intentions N = 1136; Thoughts of turnover N = 714)*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.03	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.13*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07	
3	Org. Stress		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	POS	.29*	.06*	.28*	.06*	-.21*	.03*	-.28*	.06*	-.29*	.06*	-.25*	.05*
5	Interactions		.01		.00		.01		.00		.00		.00
	x Ambiguity	-.04		.01		.06		-.01		.02		-.04	
	x Conflict	.06		.03		-.00		-.02		.01		.03	
	x Insuff.	.03		.02		-.04		.02		.01		-.03	
	x Overload	.02		.01		-.04		.02		-.00		-.00	
	x Org Image	.00		-.00		.04		-.01		.02		.00	
	x Incentives	-.02		.01		-.08		.01		-.06		-.00	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1089) = 149.15, p < .001$ ; Turnover Intentions,  $F(14, 1117) = 16.30, p < .001$ ; Thoughts of turnover,  $F(14, 1081) = 19.49, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1104) = 119.58, p < .001$ ; Turnover Intentions,  $F(14, 1122) = 16.49, p < .001$ ; Thoughts of turnover,  $F(14, 700) = 14.81, p < .001$ .

## Appendix K

*Hierarchical Moderated Regression, moderating variable Active Voice (IE Group: Job Satisfaction N = 1103; Turnover Intentions N = 1130; Thoughts of turnover N = 1094); (IPS Group: Job Satisfaction N = 1117; Turnover Intentions N = 1135; Thoughts of turnover N = 714)*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.03	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.13*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07	
3	Org. Stress		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	Active Voice	.22*	.04*	.23*	.04*	-.05	.00	-.11*	.01*	-.11	.01	-.14*	.01
5	Interactions		.00		.01		.00		.01		.00		.02
	x Ambiguity	-.01		-.01		-.01		-.11*		-.03		-.10	
	x Conflict	.03		-.02		-.03		.05		-.03		.05	
	x Insuff.	-.00		.03		-.01		-.00		.04		-.01	
	x Overload	-.01		.06		.02		.02		.04		.00	
	x Org Image	-.03		-.06		.03		-.01		-.01		-.02	
	x Incentives	.01		.03		-.02		.01		-.01		.05	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1089) = 132.09, p < .001$ ; Turnover Intentions,  $F(14, 1116) = 12.32, p < .001$ ; Thoughts of turnover,  $F(14, 1080) = 13.70, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1103) = 111.75, p < .001$ ; Turnover Intentions,  $F(14, 1121) = 12.34, p < .001$ ; Thoughts of turnover,  $F(14, 700) = 11.75, p < .001$ .

## Appendix L

*Hierarchical Moderated Regression, moderating variable Passive Voice (IE Group: Job Satisfaction N = 1103; Turnover Intentions N = 1130; Thoughts of turnover N = 1094); (IPS Group: Job Satisfaction N = 1118; Turnover Intentions N = 1136; Thoughts of turnover N = 714)*

Step	Variable	Job Satisfaction				Turnover Intentions				Thoughts of Turnover			
		IE		IPS		IE		IPS		IE		IPS	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1	Age	.03	.00	.09	.01	.19*	.04*	.16*	.03*	-.06	.00	-.17*	.03*
2	Stressors		.58*		.51*		.08*		.08*		.13*		.09*
	Ambiguity	-.06		-.09*		-.03		.02		-.03		.03	
	Conflict	-.30*		-.24*		.20*		.20*		.20*		.13*	
	Insufficiency	-.58*		-.59*		.16*		.16*		.24*		.24*	
	Overload	-.26*		-.23*		.06		.01		.12*		.07 <sup>a</sup>	
3	Org. Stressor		.01*		.02*		.02*		.01		.01		.01
	Org. Image	-.08		-.11*		.02		.05		.00		.05	
	Incentives	-.06		-.07		.12*		.08		.11*		.07	
4	Passive Voice	.04	.00	.01	.00	-.02	.00	-.01	.00	-.05	.00	-.05	.00
5	Interactions		.00		.00		.00		.00		.00		.00
	x Ambiguity	-.02		-.02		-.02		.06		-		.03	
										.00			
	x Conflict	.04		-.05		-.04		-.03		-.01		-.01	
	x Insuff.	.02		-.01		-.00		-.02		.02		-.03	
	x Overload	-.04		.03		-.00		.01		.03		.03	
	x Org Image	-.03		-.04		-.01		.01		.03		.00	
	x Incentives	.02		-.01		.01		.03		-.02		.03	

Note: \*  $p < .001$ ; IE Group: Job Satisfaction,  $F(14, 1089) = 115.66, p < .001$ ; Turnover Intentions,  $F(14, 1116) = 12.19, p < .001$ ; Thoughts of turnover,  $F(14, 1080) = 12.98, p < .001$ ; IPS Group: Job Satisfaction,  $F(14, 1104) = 95.31, p < .001$ ; Turnover Intentions,  $F(14, 1122) = 10.70, p < .001$ ; Thoughts of turnover,  $F(14, 700) = 9.48, p < .001$ .