



# WORKPLACE CHANGE

The Interuniversity Project  
on Workplace Change and Its Effects

Institute of Behavioral Science,  
University of Colorado at Boulder  
University of Puget Sound

**WORKING PAPER**

## **Work Teams and Organizational Commitment: Exploring the Influence of the Team Experience on Employee Attitudes**

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Running Head: WORK TEAMS AND ORGANIZATIONAL COMMITMENT

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Research for this paper is supported by a grant from the National Institute of Alcohol Abuse and Alcoholism at the National Institutes of Health (AA 10690-06). Please address all correspondence to Dr. Patricia B. Sikora, Sikora Associates, 2247 Grayden Court, Boulder, CO 80027, email [patsik@aol.com](mailto:patsik@aol.com).

## Abstract

Empirical evidence suggests that organizational teams only sometimes improve organizational performance. This study explores why this might be the case by focusing on how the experience of being on a team influences individual employee attitudes toward the firm. Using a sample of 1377 current or former team members from a large manufacturing firm, a mediational model is tested linking employee perceptions of their team experience with organizational commitment and turnover intentions. Subjective assessments of team social relations, effectiveness, opportunities to participate, and team structure are generally associated with these outcomes; however, these effects are fully or partially mediated through perceptions of personal mastery, work overload, and job satisfaction. Implications for theory and practice are provided.

**KEYWORDS:** Teams, Structural Equation Modeling, Organizational Commitment, Turnover, Job Satisfaction

Many claims have been made in recent years by scholars, management consultants, and journalists about the positive benefits of work teams for organizations. More specifically, teams are said to contribute to better outcomes for business organizations due to improved performance of employees (Applebaum & Batt, 1994), productivity (Glassop, 2002; Hamilton, Nickerson, & Owan, 2003) or organizational responsiveness and flexibility (Friedman & Casner-Lotto, 2002). These benefits are often attributed to the positive impact of teams on employee attitudes such as morale and job satisfaction (Cordery, Mueller, & Smith, 1991; Dumaine, 1990; Goodman, Davadas, & Hughson, 1988; Hackman, 1987; Lewis, 1990; Stewart, Manz, & Sims, 2000), as well as commitment to the organization (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001; Osburn, Moran, Musselwhite, & Zenger, 1990; Wellins, Byham, & Wilson, 1991).

The assertion that teams can have a positive, albeit modest, impact on firms finds research support across a wide range of studies conducted in a wide range of work settings (Antoni, 1991; Cappelli, Bassi, Katz, Knoke, Ostermann, & Useem, 1997; Guzzo & Dickson, 1996). However, a number of scholars insist that the evidence for a team-firm productivity link remains inconclusive (Banker, Field, Schroeder and Sinha, 1996; Batt & Applebaum, 1995; Berg, Applebaum, Bailey & Kalleberg, 1996; Stewart, et al., 2000). Linkages are especially tenuous under conditions of “lean production,” where teams have very little autonomy and must meet rigorous schedules, or in settings where labor-management relations have been conflictual for a substantial period of time (Barker, 1993; Hunter, 2002; Knights & McCabe, 2000; Parker, 2003; Pruljt, 2003).

At best, then, it appears that teams have the potential for enhancing performance and worker attitudes, but not all implementations have had the positive results anticipated by researchers or practitioners. Glassop (2002) has described the state of matters in the following

way: “In sum, while many benefits [of teams] have been cited for organizations and employees alike, the literature lacks consistent empirical evidence to support their widespread adoption” (p. 233).

The purpose of this paper is to explore reasons why teams may or may not yield expected outcomes. First, we agree with other investigators (Dorman & Zapf, 1999; van Mierlo, Rutte, Seinen & Kompier, 2001) who suggest there is need for more nuanced and fine-grained models of how teams affect employee attitudes toward their company. Specifically, research is needed that specifies the pathways by which aspects of team functioning and organization shape employee-level attitudes and outcomes. Secondly, we suggest that a team is not a team unless it is perceived as such by the employee. Belanger, Edwards, and Wright (2003) note that relatively few studies examine workers’ own reports of how team work impacts their attitudes toward their job or company. Other investigators (Niehoff, Moorman, Blakely, & Fuller, 2001; Sikora, 2002) have found that internal subjective experience, more than external objective assessment, creates the link between job redesign or enrichment (teams being one example) and employee attitudes. While we appreciate the limits of self-report, the subjective experience of the employee may be a critical link between organizational interventions and subsequent outcomes.

This study, then, seeks to examine if and how individual employees’ evaluations of their team experience influence their attitudes toward the firm. We first ask whether the employee’s assessment of different aspects of team functioning and form affect their commitment to and intent to remain in their work organization. Secondly, we ask—if the first question is answered affirmatively—how the linkage between teams and employee organizational commitment develops. We do so by examining a mediational model that includes a set of work-related attitudinal variables: work overload, sense of mastery, and job satisfaction. From our review of

the team literature, we have isolated four aspects of team functioning and organization that we believe to be important in piecing together this story—namely, internal team social relations, team effectiveness, member participation in decision-making, and team structure.

*Aspects of Teams and Their Impacts: Literature and Hypotheses*

We are interested in subjective aspects of team functioning viewed from the perspective of the individual employee that might be associated with heightened or diminished commitment and intention to leave the company. Based on a large body of literature (Farrell, 2003; Mathieu & Zajac, 1990; Meyer & Allen, 1997; Spreitzer & Mishra, 2002), we expect commitment to be strongly related to, but distinct from, turnover intentions (this is denoted as H4 in Table 1 at the end of this section). We also hypothesize that subjective evaluations of various aspects of the team experience will positively influence these important outcomes (H1a-d below); however, we ultimately expect that team perceptions will indirectly influence commitment and turnover intentions via other employee attitudes (H4m in Table 1). These are the overarching hypotheses guiding this study. We will first outline the rationale for our hypotheses regarding the relationships between four aspects of the team experience and the two outcome measures of commitment and intent to quit, then review the logic of several mediational hypotheses regarding the pathways between team perceptions and these important employee attitudes.

*Aspects of Team Experience*

*Team social relations.* Here we refer to aspects of the team experience that are perceived to provide social support, harmony, cohesion, and positive social relations: being respected by other team members, feeling free to communicate ideas, working easily and well with others on the team, and so on. Costa (2003) notes that team trust and cooperation are positively related to attitudinal commitment. Perceptions of social support or coworker solidarity in the workplace

have also been shown to be positively associated with organizational commitment (Cohen & Bailey, 1997; Cordery, et al., 1991; Parris, 2003) and job satisfaction (Belanger, et al., 2003).

While definitions of team often focus on interdependencies or collective responsibility around tasks (Barker, 1993; Devine, 2002; Glassop, 2002; Goodman, et al., 1988; Katzenbach & Smith, 1993), the social dimension may serve as the foundation for employee evaluation of their relationship with the organization. For example, Haskins and Liedtka (1998) talk about the “thermonuclear reactions” of energy and performance when team members experience relational rather than simply transactional (task) collaboration. Carron, Brawley, Eys, Bray, Dorsch, Estabrooks, et al. (2003) and others (e.g., Mason & Griffen, 2003) similarly distinguish between social integration or cohesion and task cohesion, with social cohesion often being associated with positive affect or attitudes toward work or the organization. In his extensive review of the group cohesion literature, Dion (2000) concludes that subjective perceptions of group cohesion are consistently linked to other subjective evaluations and attitudes as well as organizational outcomes such as absenteeism and reported well-being. Bayazit and Mannix (2003) note that the relationship between social conflict and intent to remain with the firm tends to be consistently higher than the relationship between task conflict and intent to remain. This leads to specification of the following hypothesis:

H1a. Employees who report more positive social relations on work teams will report higher levels of commitment to their organization and will be less likely to report an intention to leave.

*Team effectiveness.* Teams in organizations vary widely in their effectiveness in carrying out team missions and meeting objectives defined by the team itself and by the organization (Jex, 2002; Jex & Thomas, 2003). Here we are most interested in how the employee evaluates their

team's effectiveness rather than how some outside observer or manager might evaluate effectiveness. Lester, Meglino, and Korsgaard (2002) found that team member beliefs in team effectiveness were related to higher levels of motivation and satisfaction. Kirkman and Rosen (2000) include employee confidence in their collective effectiveness as one feature of a "winning team." Bayazit and Mannix (2003) also note that member beliefs in the team's effectiveness can be a key factor in turnover intentions.

In general then, research supports the idea that employees who believe they are members of teams that perform at high levels of effectiveness are more positive about organizations that provide opportunities to feel a sense of accomplishment and to be a part of group that is respected by other employees, supervisors, and top management. This leads to the following hypothesis:

H1b. Employees who report the higher levels of effectiveness for their teams will be the more committed to their organization and less likely to report an intention to leave.

*Participation in team decision-making.* There is a long research tradition which shows that job experiences having to do with the exercise of power and autonomy in the workplace are associated with the shaping of both job attitudes and more basic psychological orientations (Andrisani, 1978; Brousseau, 1978; Kohn & Schooler, 1983; Kohn, 1990; Spenner & Otto, 1984; Karasek & Theorell, 1990; Lennon & Rosenfeld, 1992). The research literature strongly supports the notion that employees in work organizations seek more participation in decision-making, generally like the experience of playing such a role, and report a wide range of positive outcomes from the experience, including greater commitment to the work organization that provides the participatory opportunity (Applebaum, Bailey, Berg & Kalleberg, 2000; Elden,

1981; Freeman & Rogers, 1999; Greenberg, 1986; Greenberg & Grunberg, 1994; Levine, 1995; Mason, 1982; Pateman, 1970; Shadur, Kienzle & Rodwell, 1999). Kirkman and Rosen (2000) note that “winning” teams are characterized by employees who can exercise freedom and discretion in decisions. These “winning” teams spur on employees to put in the extra effort to be more innovative and boost quality and production levels (i.e., these employees are more committed to helping their organization succeed). This leads us to the third hypothesis we wish to test:

H1c. The more an employee participates in decision-making on his or her work team, the higher will be the employee’s organizational commitment and less likely to report an intention to leave.

*Team structure.* The first three aspects of teams—social relationships, effectiveness, and participation in decision-making—reflect individual self-reports of affective attitudes, feelings, and evaluations of the overall team experience. This fourth aspect of teams, team structure, depends on self-reports about more objective characteristics of the teams. This measure includes descriptions of objective characteristics identified by work team enthusiasts in the management field as constituting “best practices” in team design (Drucker, 1988; Fisher, 1993; Hackman, 1987; Kanter, 1989; Katzenbach & Smith, 1993). These characteristics can include: between 12 and 25 members (with optimal size closer to lower end of the span); co-location of members; regular meetings; access to information; co-functionality; and focus on a single product or product line. Because teams of this sort are often described as “best,” one would expect that perceptions of these qualities would be linked with organizational commitment and subsequent impact on turnover intentions.

However, in a review of 122 book-length ethnographies, Hodson (2002) concludes that

the objective form of job enrichment (e.g., self-managing teams vs. union-management programs) did not affect outcomes as much as worker subjective perceptions of autonomy and pride. Similarly, Parker (2003) found that differences in commitment associated with different types of team structures could be attributed primarily to employee perceptions of their work experience rather than the team structures per se'. This work suggests that objective physical form or structure of teams may be less relevant to employee or organizational outcomes than more subjective perceptions of employees. So, it is not entirely clear if or how much team structure independently contributes to subsequent employee attitudes and behaviors. Thus:

H1d. Employees who are members of teams that more closely approximate the “best” team structure will be more committed to their organization. However, we do not expect this relationship to be as strong as the relationship between commitment and the other three, more subjective, team measures.

*Mediators: Literature and Hypotheses*

If it is the case that one or more of these team aspects is associated with organizational commitment and intention to quit, it still remains to explain the pathways by which team experiences are translated into feelings about the company team members work for. Figure 1 offers a proposed model that suggests full mediation of the relationships between team perceptions and commitment and turnover. While numerous models of partial mediation could be proposed, we chose to start with the most stringent or constrained model as this would be the most parsimonious explanation of effects. And, while this is an exploratory study, this approach also requires stronger statements regarding anticipated relationships.

*Insert Figure 1 about here*

Two proximal mediators to the team experience, we believe, are sense of personal

mastery and perceptions of work overload (Block 2 in the model). We then suggest that these outcomes of the team experience influence perceptions of job satisfaction (Block 3), which in turn affect organizational commitment and intention to quit (Blocks 4 & 5). We will first describe hypotheses related to expected consequences of each mediator, then specify hypotheses regarding antecedents.

*Block 2: Personal mastery.* Sense of personal mastery may be understood as an outlook in which the individual believes that he or she is efficacious across a broad range of life domains, the he or she “can and does master, control, and shape one’s own life” (Geis & Ross, 1998, p. 233). Note that this is a belief in one’s *potential* to handle situations versus evaluations of actual performance or effectiveness. The concept of mastery can be linked to two theoretical frameworks: (a) the concept of self-efficacy which dates back to Bandura (1982) and relates to internal beliefs about how well a situation can or will be handled, and (b) Lazarus and Folkman’s (1984) stress model in which secondary appraisal, or evaluation of one’s ability to handle a new or stressful situation, is critical to subsequent coping responses. Both theories suggest that those with stronger beliefs in their ability to handle or shape their circumstances are more likely to be satisfied with these circumstances and be more positive toward them.

In the work domain, Elmuti’s (2003) study of Internet-aided self-managed teams concludes that these teams improved quality of work life by enhancing employees’ sense of personal responsibility and authority to act. In their study of downsizing survivors, Mishra and Spreitzer (1998) suggested that changes in the workplace that enhance intrinsic quality of work should provide employees more skills to cope and increase their sense of control over their responses and their environment. So, we hypothesize that:

H2a: Personal mastery will be positively and directly related to job satisfaction.

The link between experiences in teams and the sense of personal mastery is especially relevant for those experiences that either empower or disempower individuals (Argyris, 1957; Blauner, 1964; Kohn & Schooler, 1983; Greenberg, 1986; Seeman, 1959; Seeman & Anderson, 1983; Seeman, Seeman, & Budros, 1988; Seeman & Lewis, 1995). First, working on teams is likely to empower individuals to the extent that teams enable members to participate in decision-making in a work unit that is productive and efficient, and supportive and collaborative. Lack of participation in decision-making has been found to contribute to feelings of alienation and powerlessness (Blauner, 1964; Braverman, 1974; Karasek, 1979; Kohn & Schooler, 1983; Kornhauser, 1965; Markowitz, 1984). Griffin, Patterson, and West (2001) found evidence of complex mediational paths between the extent of teamwork and job satisfaction, specifically the path was mediated by worker perceptions of engagement in their workplace.

H2b: Team participation will have a direct positive effect on personal mastery.

Secondly, involvement in teams that are viewed to be effective likely increases the individual's sense of personal instrumentality or effectiveness. Coping models (Lazarus & Folkman, 1984) and self-efficacy theory (Bandura, 1982) would suggest that experiences of success or effectiveness in one domain would bolster perceptions of mastery in other arenas: perceived effectiveness in a team environment may carry over to confidence in other work (or life) arenas. Friedman and Casner-Lotto (2002), for example, note that working on successful teams give employees a sense of confidence and accomplishment as well as helps them cope with times of uncertainty by increasing flexibility and adaptability. Accordingly, we would also suggest that:

H2c: Team effectiveness will have direct positive effect on personal mastery.

We do not have as strong a theoretical basis for linking team social relations or team

structure with personal mastery, but we might conjecture that having a strong and positive social connection with a group of peers would serve as a foundation for an increased sense of personal mastery (an extension, perhaps, of a social support argument). Also, it is plausible to suppose that a team that follows “best practices” in terms of form and structure would have a positive impact on one’s sense of personal efficacy to the extent that these structures support higher levels of performance and success on the job. Based on this logic, we would propose that:

H2d: Team social relations have a positive direct effect on personal mastery.

H2e: Team structure will have a positive direct effect on personal mastery.

Because of the paucity of research, we take a conservative approach with the last two hypotheses. Though we expect positive relationships with mastery, we do not believe the relationships will be as strong as those with team effectiveness and team participation.

*Block 2: Work overload.* We suggest that work overload—the sense that work is too demanding in terms of time and workload—is another potential mediator of the work team-organizational commitment/intention to quit relationship. Overwork and too little time to complete work are likely to lead to frustration and feelings of resentment. Employees who are asked to do too much and are given too little time to complete their responsibilities are likely to think less of their company and their work than those who are not in this situation (Mathieu & Zajac, 1990; Parker, 2003). So, we expect:

H2f: Work overload will be negatively and directly related to job satisfaction.

There is not a rich body of literature to draw on for hypotheses regarding relationships between our four team aspects and perceptions of overload. However, some have found that as teams increase employee sense of ownership in their work (Friedman & Casner-Lotto, 2002) and/or the pace of work (Elmuti, 2003), members of work teams may perceive work overload

more than other company employees. Or, to the extent that team members share responsibilities and cover for one another when things get tough, employees may experience less overload. If the former is the case, team members are also less likely than other employees to be satisfied with their organization; if the latter, they are more likely to be satisfied and willing to stay with the organization (Barker, 1993; Elloy & Terpening, 2001; Kirkman, Shapiro, Brett & Novelli, 1996; van Mierl, 2001). Also, if the team is structured appropriately (i.e., “best” practices are deployed in designing the team), we might suppose that perceptions of overload or “mismanaged time” would be less common. One could also argue that perceptions of decision-making in the team could increase perceptions of workload (e.g., “now I have make decisions for the team, plus do my own work”), or that active participation in a team would allow the worker to guide decisions that improve their own working conditions. Regarding these issues, we suggest the following exploratory hypothesis as a starting point for the analysis:

H2g: All four aspects of team experience will be negatively and directly related to perceptions of work overload; i.e., the more “positive” the experience on the team, the lower the perception of overload.

*Block 2 mediational hypotheses.* Finally, we anticipate that feelings of mastery and overload mediate the relationship between employees’ team experiences and their perceptions of satisfaction. One likely outcome of working in an environment that allows participation in decision-making, provides a supportive and collaborative work environment, and encourages each member to succeed in workplace tasks—as is the case for well-functioning work teams—is an increase in job satisfaction. This perhaps obvious observation is backed by an enormous research literature (Berg, 1999; Bradley & Cartwright, 2002; Cotton, 1995; Dumaine, 1990; Goodman, 1988; Hackman, 1987; Kim, 2002; Lewis, 1990; Osburn, 1990). We, therefore,

expect positive zero-order relationships between all four team aspects and job satisfaction. However, we expect that the team experiences in and of themselves will not directly connect with perceptions of satisfaction, but require an intermediary psychological benefit (or drawback) in order to impact general feelings about the workplace. Why does effectiveness in the team help people feel more satisfied, for example? Because it provides some sort of psychological benefit that helps the individual feel better about the workplace. We suggest that the intervening sense of mastery or control over the environment is the proximal driver of satisfaction. So, our final hypothesis for Block 2 involves mediation of the positive impact of team experiences on work satisfaction:

H2m: There will be positive zero-order relationships between all four team constructs and job satisfaction, but also anticipate that these effects will be entirely mediated by personal mastery and work overload.

*Block 3: Job satisfaction.* There is an enormous research literature documenting a strong association between job satisfaction and employees' mostly-positive attitudes about a wide range of job and work-related attitudes and behaviors (Harter, Schmidt, & Hayes, 2002; Lowery, Beadles, & Krilowicz, 2002; Schleicher, Watt, & Greguras, 2004), including their overall evaluations of the company they work for and their intention to stay with the organization (Cohen & Bailey, 1997; Levine & D'Andrea, 1990; Mathieu & Hamel, 1989; Mathieu & Zajac, 1990; Mitchell, et al., 2001; Reichers, 1985; Spreitzer & Mishra, 2002; Testa, 2001). We hypothesize then, that:

H3a: Perceptions of job satisfaction will be positively related to commitment.

Given the pivotal role employee satisfaction plays in building solid relationships with employees and, given that satisfaction is often conceptualized as an overarching attitude

encompassing many aspects of the employee's work experience, it seems reasonable to suggest that more fine-grained evaluations of the work environment, such as overload or mastery, will influence commitment through this more encompassing attitude. So, we also suggest that:

H3m: Job satisfaction will mediate the relationship between employees' perceptions of work overload and mastery and their organizational commitment and intention to quit.

Table 1 below summarizes our hypotheses. Note that all mediational hypotheses implicitly include expectations about zero-order relationships. That is, if no zero-order relationship exists between the independent and dependent variables under review, discussion of mediation is moot (Baron & Kenny, 1986; Judd & Kenny, 1981).

*Insert Table 1 about here*

## Methods

### *Study Site*

The study was conducted in the largest division of a very large manufacturing company on the west coast of the United States that produces high technology products. The company is a dominant firm in its product line and an important U.S. exporter. The division in our study employed well over 80,000 people at the time of our investigations, with employees occupying posts stretching across a wide range of job skills and occupational categories, from high level design engineers to semi-skilled assemblers, from accountants to receptionists. Seventy percent of employees are represented by a union.

### *Data Collection*

This analysis is but a small part of a much larger, longitudinal-panel study that seeks to examine the impact of layoffs, job reengineering and redesign, and teaming on employees. This article reports results from the first cross-section sample gathered in Fall, 1996 and Winter,

1997.<sup>1</sup> A questionnaire was sent to 3,700 randomly selected employees who had worked for the firm for at least two years.<sup>2</sup> Two thousand two hundred seventy nine valid questionnaires were returned, representing a 62% return rate. Respondents were 75% male, had a mean age of 44, and a mean company tenure of 14.6 years. The median level of education was “Associate’s Degree,” roughly two years of college, and the mean household income of respondents was close to \$60,000. Forty two percent of employees in this sample were currently on a work team, 36% had been on a work team in the past but were not presently on one, while 22% had never been on a work team. Only respondents who had experience on a team were included in this analysis.

### *Measures*

For the most part, the measures for the path analysis took the form of indices constructed from multiple questions. Some of the measures used in the analysis were standard measures from the social science literature, validated across a wide range of studies. Other measures were created specifically for this study, based on questions suggested by in-depth interviews and focus groups sessions. For these latter measures, we performed a combination of item and scale analyses (e.g. item-to-total correlations, exploratory factor analysis, and Cronbach’s internal consistency analysis for simple additive indices per Cronbach, 1951) to establish reliability and validity. Below is a description of the scales used in the path model.

*Team social relations.* This index is used as a measure of social aspects of team membership and is composed of six items designed for this study. All items are measured using a four-point *agree-disagree* scale; example items are “the views of team members are/were treated with respect by others on the team” and “people work/worked well together on the team.” Team social relations scores range from 6 to 24 with higher scores indicating more positive views of the construct; Alpha = .83.

*Team effectiveness.* This index is a measure of employee perception of outcomes of the team efforts and is composed of six items designed for this study. All items are measured using a four-point scale of perceived effectiveness, ranging from *highly effective* to *highly ineffective*. Employees were asked to rate the effectiveness of outcomes such as productivity, cost control, and work quality. Team effectiveness scores range from 6 to 24 with higher scores indicating higher levels of perceived effectiveness; Alpha = .86.

*Team participation.* This is another index constructed for this study and assesses the degree to which employees felt they had a say in various aspects of team functioning: a great deal, some, or none at all. Five items are used in this index, including items such as having a say in how much work is done or how the team allocates tasks and responsibilities. Team participation scores range from 0 to 10 with higher scores indicating higher levels of perceived participation; Alpha = .79.

*Team structure.* This variable is a count of *yes* responses to seven items related to how the team is organized or structured. Items included are those identified as being “best practices” for team design, such as team members working on a single project or product, having access to information usually reserved for management, and being co-located. The range of scores for team structure is 0 to 7 with higher scores indicating that the team approximated a “best practice” structure. Alpha (Kuder-Richardson-20 for binary data) is low (.36); however, this is not entirely unexpected given the heterogeneous nature of the scale.

*Personal mastery.* In this study, we measure the sense of personal mastery using the seven item, widely-used and validated mastery scale created by Pearlin and Schooler (1978). Mastery scores range from 8 to 35, with an Alpha score of .82.

*Work overload.* For this study, work overload is measured using three items adapted

from Cammann, Fichman, Jenkins, and Klesh (1983). Items reflect perceptions of “too much to do” on the job using a five-point *agree-disagree* scale. Overload scores range from 3 to 15 with higher scores reflecting higher levels of overload; Alpha = .76.

*Job satisfaction.* This is a three item scale adapted from Cammann, et al. (1983) assessing general satisfaction with the job and workplace. Items are measured on a five-point *agree-disagree* scale. Satisfaction scores range from 3 to 15 with higher scores indicating greater levels of satisfaction; Alpha = .86.

*Organizational commitment.* This three item index measures attachment to the organization, one of the more central components of commitment. This is a shortened version of a scale used by Lincoln and Kalleberg (1990) in which employees are asked to report their commitment using a five-point Likert scale. Scores for this index range from 3 to 15 where higher values indicate higher levels of commitment; Alpha = .72.

*Intention to quit.* This three item scale is adapted from Camman, et al. (1983) and assesses employee desire to leave the organization as well as current job seeking behavior. Items are measured using five-point Likert-type scales where higher values indicate greater intention to quit the organization. Intent to quit scores range from 3 to 15; Alpha = .83.

#### *Data Analysis*

Structural equation modeling (SEM) was used to address relationships among measures, allowing us to test the entire system of relationships, as well as individual direct and indirect effects (Garson, 2001; Kline, 1998; Tanaka, Panter, Winborne, & Huba, 1990). Per convention, all exogenous variables (the four team variables in the first block of the model) are allowed to covary as we are unable to specify their individual or common causes. Similarly, disturbances (error terms) of the two variables in the second block of the path model (personal mastery and

work overload) are allowed to covary as we assume there are shared omitted common causes of variables within the same analytical block (Kline, 1998).

A covariance matrix was submitted to AMOS 5.0 using maximum likelihood estimation. Listwise deletion of missing variables resulted in a final sample of 1377. There was no systematic pattern of missing data across the path model measures. All measures showed distributions consistent with the assumptions of normality so no transformations were required. The initial, conceptual model converged on a solution without difficulty, so no additional model adjustments were implemented.

There are numerous goodness-of-fit indices used in the literature and there exists considerable debate regarding the relative utility and/or stability of various indices (Bollen, 1989; Hu & Bentler, 1995; Kline, 1998; Tanaka, 1993). Following the recommendation of many authors in the field, we use a “suite” of fit indicators, each indicator reflecting different aspects of fit: Chi2/df, AGFI, CFI, and RMSEA.<sup>3</sup>

## Results

Table 2 presents the means, standard deviations, and ranges for the measures used in this analysis.

*Insert Table 2 about here*

In general, participants in this sample felt fairly positive about their team experiences; with the exception of team participation ratings ( $M = 4.3$ ), all of the team aspects were above the midpoint of the range of their scales. Mean values of personal mastery (26.2), job satisfaction (11.2), and organizational commitment (10.0) also track above scale midpoints (21, 9, and 9 respectively), suggesting that these employees felt at least somewhat “in control” and modestly positive about their workplace. Overload ratings ( $M = 9.4$ ) are also above the midpoint of the

scale, indicating that employees were a bit overloaded, but not overwhelmingly so. Intent to quit ratings ( $M = 6.7$ ) track under the range midpoint of 9, which suggests that there was not a widespread desire to leave the organization.

### *Evaluation of Hypotheses*

Table 3 reports zero-order correlations between all measures used in this analysis. Evaluation of our first set of hypotheses, that is, the relationship between various subjective aspects of the team experience and organizational commitment and intent to quit, rely on zero-order findings. Other hypotheses regarding direct and mediational paths will be addressed in the subsequent section.<sup>4</sup>

*Insert Table 3 about here*

#### *Block 1 Zero-order hypotheses: Team experiences on commitment and intent to quit.*

Hypotheses H1a-d suggest that each aspect of the team experience will have a positive relationship with organizational commitment and a negative relationship with intent to quit. Correlations in Table 3 provide support for most of these hypotheses. Specifically, team social relations, team effectiveness, team participation, and team structure each have a positive and significant relationship with organizational commitment (.30, .31, .22, and .18 respectively, all  $p < .001$ ). In addition, two aspects of team experience, social relations and effectiveness, show negative and significant relationships with intent to quit (-.20 and -.16 respectively,  $p < .001$ ). Team participation has a significant but quite small negative association with intent to quit (-.07,  $p < .01$ ), but the correlation between team structure and intent to quit is not significant. These zero-order relationships set the stage for examining more fine-grained models of the mechanism by which team experiences influence commitment and turnover intentions.

*Overall model fit.* Before evaluating specific direct or indirect relationships as outlined in

the Introduction, we conducted an “omnibus” test of the overall fit of the conceptual model. Here the question is not about individual paths, but how the conceptual model as a whole fits the sample data. A good fit suggests that we have specified a model that is consistent with the data and, while not a “true” model, is one that is plausible for the current sample.

Fit indices for the proposed conceptual path model (Figure 1 earlier in this paper) were poor, with none of the indicators approaching their threshold for “adequate” fit (thresholds in parentheses):  $\chi^2/df = 27.0 (3.0)$ , CFI = .86 (.90), AGFI = .83 (.90), and RMSEA = .138 (.05). These findings suggest that the overall conceptual model is misspecified and does not represent the pattern of covariances in our data. A saturated model (all possible paths included) was estimated to identify which paths may, in fact, warrant consideration for inclusion in a respecified model. Paths identified for inclusion in a respecified model were those with significant path coefficients ( $p < .05$ ).<sup>5</sup>

The resulting path model (Figure 2) had substantially improved fit indices:  $\chi^2/df = 1.4$ , CFI = .99, AGFI = .99, and RMSEA = .02. The revised model also explains a reasonable amount of variance in both key outcome measures: .45 for organizational commitment and .39 for intent to quit. Measures of team experience and the intervening variables of mastery and overload account for .21 of the variance in job satisfaction. Variance explained in the mediating variables of personal mastery and work overload is modest, which may not be surprising given the wide range of job-specific and organizational factors that might influence these perceptions.

*Insert Figure 2 about here*

All subsequent results reported in this paper are based on this revised model.

*Block 2 direct paths: Personal mastery and work overload.* Hypothesis 2a states that personal mastery will be positively and directly related to job satisfaction. This hypothesis is

supported by a direct path coefficient of .21 between the two measures ( $p < .001$ ). Hypotheses 2b-e refer to direct paths between the four team measures and personal mastery; specifically, we expected each of the four team measures to be positively associated with personal mastery over and above the effects of the other team measures. Two of these four hypotheses were supported: team social relations has a positive direct relationship with personal mastery (.16,  $p < .001$ ), while team participation has a small, but statistically significant, positive direct relationship with personal mastery (.07,  $p < .01$ ). Neither team effectiveness nor team structure influence personal mastery when other team experiences are taken into account.

Hypothesis H2f states that perceptions of work overload will be negatively related to job satisfaction. This hypothesis was minimally supported with a small, but significant direct path coefficient of -.07 ( $p < .002$ ). Hypothesis H2g suggests that more positive team experiences will reduce perceptions of work overload. We found mixed results for how team experiences impact perceptions of overload: the path coefficient for team structure was not significant, team participation has a modest *positive* direct effect on perceptions of overload (.17,  $p < .001$ ), and team social relations and effectiveness each have small to modest *negative* direct effects (-.08,  $p < .05$  and -.14,  $p < .001$  respectively). This suggests that participation in teams may increase perceptions of work overload, while perceptions of effectiveness and positive social relations reduce these perceptions.

*Block 2 mediational paths: Indirect effects of team experiences via mastery and work overload.* Finally, in Hypothesis H2m, we suggest that personal mastery and work overload would mediate relationships between team experiences and overall perceptions of job satisfaction. This relationship first requires significant zero-order relationships between the team measures and job satisfaction<sup>6</sup>. As noted in Table 3, all four team measures show positive and

significant zero-order relationships with job satisfaction. When put within the context of a structural model that accounts for simultaneous effects these relationships are reduced or disappear, providing evidence of mediation via personal mastery and/or work overload.

Patterns and level of mediation vary by team variable, however. Team structure's zero-order relationship with job satisfaction (.16,  $p < .001$ ) has dropped entirely out of the structural model suggesting total mediation; however, there is no obvious indirect path through which this mediation operates as team structure does not show effects through either work overload or personal mastery. We have evidence of partial mediation for team participation as a zero-order relationship of .23 with job satisfaction drops to a small, but significant .07 ( $p < .05$ ) in the structural path model. Since participation has direct paths through both mastery and work overload, we conclude that effects of participation on job satisfaction are mediated in part via both of these employee perceptions. Team social relations (zero-order with satisfaction = .36,  $p < .001$ ) appears to work partially through both perceptions of mastery and overload, but continues to show strong direct effects on job satisfaction (direct path on satisfaction = .24,  $p < .001$ ) within the context of the structural model. Team effectiveness shows partial mediation on job satisfaction through work overload as the zero-order association of .31 ( $p < .001$ ) reduces substantially to .10 ( $p < .001$ ) in the path analysis.

*Block 3 hypotheses: Job satisfaction and commitment.* Hypothesis 3a asserts that perceptions of job satisfaction will be positively related to organizational commitment. Consistent with findings in many other studies, we also found a strong positive direct relationship between these two constructs (path coefficient = .62,  $p < .001$ ). We also suggested that job satisfaction would mediate the relationship between perceptions of overload and mastery on organizational commitment (H3m). The proposed mediational path for overload is not

supported because there is only a very small, albeit statistically significant zero-order relationship between work overload and commitment ( $-.08, p < .001$ ), and the direct relationship between overload and satisfaction is also very modest ( $-.07, p < .01$ ). Interestingly, a slightly stronger and significant path coefficient is found between work overload and intent to quit ( $.12, p < .001$ ). These results suggest that perceptions of “too much work” directly influence turnover intentions over and above perceptions of satisfaction and feelings of organizational commitment.

The hypothesized mediational route between mastery and commitment is supported, however, as we see a modest positive zero-order relationship between the two constructs ( $.16, p < .001$ ) that is entirely eliminated in the context of the structural model. Further, direct paths leading from mastery to satisfaction and from satisfaction to commitment are substantial and significant, fully satisfying all three criteria for mediation (Baron & Kenny, 1986; Kenny, 2001).

*Block 4 hypotheses: Commitment and turnover.* We suggested that commitment to the organization and turnover intentions should be strongly and negatively related, yet reflect distinct constructs (H4). The zero-order relationship between the two measures of organizational commitment and intent to quit ( $-.52, p < .001$ ) supports this hypothesis. We further suggest that the associations between team experiences and key outcomes of commitment and turnover would be mediated by other employee attitudes (Hypothesis 4m). This hypothesis receives strong support for the effects of team experiences on commitment: significant zero-order relationships for team participation and social relations are not significant in the structural model and partial mediation is evident for team structure and effectiveness, i.e., direct paths are significant but reduced in magnitude from initial zero order correlations (from  $.18$  to  $.06, p < .01$  and from  $.31$  to  $.10, p < .001$  respectively). We see evidence of complete mediation as well for the influence of team social relations and effectiveness on intent to quit, as both significant zero-order

correlations become not significant in the path model. Mediation is not supported for team participation as the small zero order correlation with intent to quit ( $-.07, p < .05$ ) suggests that there is not a substantive relationship to mediate. Interestingly, a non-significant zero-order correlation between team structure and intent to quit is replaced with a positive and significant direct path ( $.09, p < .001$ ), suggesting suppression for this relationship.

Table 4 summarizes the findings for the hypotheses offered in our Introduction.

*Insert Table 4 about Here*

### Discussion

In this study we examined the role of teams in supporting employee commitment and retention in a division of a large manufacturing company. Specifically, we focused on subjective experiences of being on a team and offered a mediational model specifying how these perceptions might relate to attitudes of organizational commitment and intentions to quit the firm. We found strong positive associations between all four indices of subjective team experience and measures of organizational commitment, but negative relationships with intent to quit only for the two measures of team social relations and perceptions of team effectiveness. Overall, however, we conclude that employees with positive team experiences are more likely to feel bonded to the company and less inclined to want to separate from the firm.

While our stringent conceptual model of total mediation was not confirmed, a revised model allowing for partial mediation of these team experiences via other attitudes was generally supported. However, the pathways for direct and indirect relationships were not entirely consistent with our hypotheses.

For example, employee perceptions of team effectiveness directly and positively impacted commitment to the organization and had a range of effects on turnover intentions via satisfaction, commitment, and perceptions of work overload. Higher levels of perceived

effectiveness directly increased perceptions of job satisfaction and organizational commitment which, in turn, reduced reported turnover intentions. Contrary to expectations, perceptions of team effectiveness did not contribute to feelings of personal mastery when other team measures were taken into account. That is, perceptions of efficacy (Bandura, 1982) or ability to handle new demands (Lazarus & Folkman, 1984) in a group or team context did not appear to translate into perceptions of mastery or competence at an individual level. However, effectively handling tasks in a team context may reduce perceptions of being overburdened or overloaded. The negative association between overload and mastery ( $-.12, p < .001$ ) suggests that reducing perceptions of overload may have a positive influence on perceptions of mastery or control which further bolsters job satisfaction.

A sense of bonding or social cohesiveness on the team did not directly impact commitment or intent to quit, but appears to exert indirect influence via feelings of mastery, work overload, and general job satisfaction. The finding that social relations impact job satisfaction is consistent with findings of others (Bayazit & Mannix, 2003; Carron, et al., 2003; Dion, 2000) in the team literature. Interestingly, and unexpectedly, positive team relations had a stronger influence on perceptions of personal mastery than did the other team experiences. The relatively strong relationship with mastery could be explained as a social support or secondary appraisal function (Lazarus & Folkman, 1984): the perception of true team-mates may help the employee feel that they have a more solid foundation from which to handle the demands of the workplace (Cohen & Wills, 1985; Heaney, Price, & Rafferty, 1995; Lee, 2004). Similarly, strong social relationships on the team appear to exert a positive influence by reducing perceptions of overload. Positive, strong relationships within the team may help the employee feel supported in handling his/her day-to-day responsibilities. A strong social base within the

team, then, seems to have multiple positive effects which ultimately increase commitment to the organization and reinforce employee retention efforts.

Opportunities, or more specifically, perceived opportunities to participate in a team indirectly and positively impacts commitment and turnover intentions via increased mastery, but also exerts a relatively strong negative effect on these outcomes via increased perceptions of work overload. Participation in teams may be a double-edged sword. Team members' sense of influence or involvement on the team may increase their sense of control or mastery, which strongly influences perceptions of satisfaction with the job. However, participation may simultaneously increase feelings that employees are overworked, which may reduce satisfaction. As noted earlier, the negative relationship between perceptions of mastery and overload ( $-.12, p < .001$ ), indicates that increasing perceptions of mastery may decrease perceptions of overload (or, conversely, reducing feelings of overload may increase perceptions of mastery). It would be important, then, to monitor workload evaluations as we add teams to workers' everyday responsibilities so that the potential benefits of teams are not undermined by employee perceptions of being overwhelmed.

The relationship between team structure and the two outcome variables of commitment and turnover is a bit puzzling, showing evidence of partial mediation without an obvious pathway to commitment, and suggesting a suppression effect on turnover intentions. There are no other significant paths to other measures in the structural model. Note that there are, however, strong correlations among all the team measures; how one perceives the structure of the team does appear to influence perceptions of social relations, effectiveness, and participation (and vice versa). Team structure may be an antecedent condition or set the stage for positive subjective experiences; that is, specific objective characteristics of the team may not be as

critical as the perception that the general approach to team organization is conducive to positive social relations and effective participation. The role of structure, especially structure as perceived by team members versus an outsider, may need further exploration relative to employee attitudes and retention.

*Implications for research and theory.* In a preliminary analysis with this same data set, we found that simply “being on a team” had minimal relationship with commitment levels or turnover intentions. We also note in the Introduction that, while many studies do show positive linkages between teams and employee outcomes, the results are somewhat inconsistent and relationships are often not as strong as anticipated. One reason for variable results in the team literature may be that investigators have been overly focused on external or objective indicators of employee team experience and not focused enough on how the team is experienced by the employee. It was when we complicated our analysis by viewing team membership as a subjective employee experience rather than a categorical covariate that we saw stronger linkages with key outcomes. More research from the employee point of view may help us better understand what motivates employees to be more or less committed to the firm: *being* on a team may be less relevant, from an employee perspective, than *feeling* on a team.

That said, it would be helpful to compare employee self-reports of team experiences and commitment to external views: is there a relationship between what the employee experiences and feels and a manager’s (or investigator’s) view of team effectiveness and employee effort or performance? This is where the link between subjective experience and objective performance might be made. How and when do employee perspectives mesh with external assessments? What are the indicators of social cohesion or active participation that are common to both internal and external audiences? How do employee and manager views of team structure jointly

contribute to organizational outcomes? Hierarchical modeling techniques could be used to explore the relationships among various perspectives of team experiences and outcomes.

Additional work also needs to be done regarding mediating processes. While we saw some evidence of roles for perceptions of mastery and work overload in mediating outcomes such as satisfaction and commitment, strength of relationships with the team experiences were sometimes modest. What might be other mechanisms through which subjective team experiences influence satisfaction, commitment, and turnover? The significant relationship between team social relations and perceptions of personal mastery was unexpected. Is this evidence of a social support effect? Others (Luthans & Sommer, 1999; Niehoff, et al., 2001; Tyler & Lind, 1992) have noted that positive social relations on teams enhance feelings of trust toward management and the organization – to what degree might teams enhance perceptions of trust and commitment to the firm?

This study relies on a fairly narrow sample of employees from a unionized manufacturing site that has a history of downsizing and somewhat tense labor-management relations. The fact that team experience was linked to commitment is important. However, as is true of any single sample study, we have to ask about the degree to which these findings generalize to teams in other contexts. This inquiry suggests further questions: under what conditions do teams have desired impacts on corporate performance? To what degree does the organizational culture, structure, or industry-type influence the relationship between teams and employee outcomes? These questions are not only relevant for generalizability of findings but for deepening our understanding of how, when, where, and why teams “work.”

Finally, this study suffers from the common method bias limitations of any cross-sectional study, and any statements of causality, much less reliability and generalizability of

results, require additional samples and longitudinal designs. One could argue that retrospective bias suggests an alternative path model in which current satisfaction or commitment levels influence perceptions of past or even current team experiences. Longitudinal models would permit us to explore the sequencing of antecedents and consequences as well as the temporal role of intervening factors. Despite the limits of a cross-sectional design, we feel an advantage is the opportunity to explore, in some depth, more complex direct and indirect relationships.

Longitudinal models are somewhat constrained when addressing the more nuanced or fine-grained models advocated by several investigators (Dorman & Zapf, 1999; van Mierlo, Rutte, Seinen & Kompier, 2001).<sup>7</sup> This cross-sectional study allows us to explore a range of hypotheses within a large industrial setting and lays the conceptual groundwork for more focused longitudinal hypotheses in this or other contexts.

*Implications for Practice.* Why does a deeper understanding of the team-commitment relationship matter? One answer is simply that in today's volatile work environment, it can ultimately matter to the bottom line. It is difficult to imagine a firm that can gain or retain a leadership position without engaged, enthused, and creative employees who are able and willing to go above and beyond the basic requirements of the job. It is also difficult to imagine a firm enjoying sustained growth if it has a revolving door in human resources: constant turnover, especially if the turnover is in key positions, keeps the firm stuck in a "square one" mode as new employees are constantly being brought up to speed. Even if employees do not physically leave the firm, the company may still suffer from low productivity as employees psychologically withdraw from the company (Bayzsi & Mannix, 2003).

Bridges and Harrison (2003) observe that: "while employee commitment is more critical than ever in gaining competitive and financial advantage, organization commitment to

employees is actually declining” (p. 498). Downsizing, particularly if it becomes normative, sends strong messages to employees about commitment. Given that this company had implemented several downsizing initiatives in the previous decade (about half of all employees in the division had been eliminated), the strong linkage of team experience to commitment is important as it suggests one vehicle by which firms can re-secure relationships with survivors of downsizing. Others have noted that teams can be a way for organizations to demonstrate commitment to their employees, communicating to employees that the firm wants employees to have more power, authority, involvement in their work and the organization (Vandenberghe, Bentein, Stinglhamber, 2004; Weakland, 2001). Teams have also been identified as a way to rejuvenate survivors and rebuild loyalty in downsizing situations (Spreitzer & Mishra, 2002).

The team-commitment linkage may have particular relevance, then, for organizations that need to reaffirm loyalty and rekindle enthusiasm of survivors (Niehoff, et al., 2001). Teams have significant potential to enhance worker dignity and rebuild relationships, but they may have negative impacts on worker morale and productivity if they are implemented as ploys or “pseudo”-teams to co-opt or placate employees (Belanger, Edwards, & Wright, 2003). This study suggests that sensitivity to employee perceptions of their team experience is essential to ensuring that teams are places where employee dignity and loyalty can emerge.

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Table 1 – Hypothesis Summary

**Block 1 Hypotheses (zero-order anticipating mediation to commitment and turnover intentions)**

<b>H1a</b>	Employees who report more positive social relations on work teams will report higher levels of commitment to their organization and will be less likely to report an intention to leave.
<b>H1b</b>	Employees who report higher levels of effectiveness for their teams will be the more committed to their organization and less likely to report an intention to leave.
<b>H1c</b>	The more an employee participates in decision making on his or her work team, the higher will be the employee's organizational commitment and lower the intent to leave.
<b>H1d</b>	Employees who are members of teams that more closely approximate the "best" team structure will be more committed to their organization and less likely to leave. However, we do not expect this relationship to be as strong the relationship between commitment and the other three, more subjective, team measures.

**Block 2 Hypotheses: consequences and antecedents of personal mastery and work overload**

<b>H2a</b>	Personal mastery will be positively and directly related to job satisfaction
<b>H2b</b>	Team participation will have a positive direct effect on personal mastery.
<b>H2c</b>	Team effectiveness will have a positive direct effect on personal mastery.
<b>H2d</b>	Team social relations will have a positive direct effect on personal mastery.
<b>H2e</b>	Team structure will have a positive direct effect on personal mastery.
<b>H2f</b>	Work overload will be negatively and directly related to job satisfaction.
<b>H2g</b>	All four aspects of team experience will be negatively and directly related to perceptions of work overload.
<b>H2m</b>	There will be positive zero-order relationships between all four team aspects and job satisfaction, but effects will be mediated via mastery and overload (e.g., no direct effects in structural model)

**Block 3 Hypotheses: consequences of job satisfaction**

<b>H3a</b>	Perceptions of job satisfaction will be positively related to commitment
<b>H3m</b>	Job satisfaction will mediate the relationship between employees' perceptions of work overload and mastery and their organizational commitment. As part of mediation assessment, we expect negative, significant zero order relationship between overload and commitment and a positive, significant zero-order relationship between mastery and commitment.

**Block 4 and 5 Hypotheses: Commitment and Turnover**

<b>H4a</b>	Organizational commitment will be strongly related to, but distinct from, turnover intentions.
<b>H4m</b>	Team experiences will indirectly influence commitment and turnover intentions via satisfaction and other employee attitudes.

Table 2 – Descriptive Data (N=1377)

Measure	No. Items	Possible Range	Mean*	SD
Team social relations	6	6-24	17.5	3.1
Team effectiveness	6	6-24	17.2	3.4
Team participation	5	0-10	4.3	2.4
Team structure	7	0-7	5.0	1.3
Personal mastery	7	8-35	26.2	4.7
Work overload	3	3-15	9.4	2.6
Job satisfaction	3	3-15	11.2	2.4
Org commitment	3	3-15	10.0	2.5
Intent to quit	3	3-15	6.7	3.4

\* higher scores on all measures indicate greater levels of the construct

Table 3 – Zero-Order Correlations (N = 1377)

	a	b	c	d	e	f	g	h	i
a Team social relations	--								
b Team effectiveness	.62	--							
c Team participation	.42	.41	--						
d Team structure	.26	.30	.28	--					
e Personal mastery	.20	.13	.14	-.07 <sup>a</sup>	--				
f Work overload	-.10	-.12	.06 <sup>b</sup>	ns	-.12	--			
g Job satisfaction	.36	.31	.23	.16	.29	-.14	--		
h Org commitment	.30	.31	.22	.18	.16	-.08	.66	--	
i Intent to quit	-.20	-.16	-.07 <sup>a</sup>	ns	-.15	.19	-.56	-.52	--

a: .01 > p > .001    b: .05 > p > .01    ns: not significant at .05  
all other correlations significant at p < .001

Table 4: Summary of Findings

		Supported?
<b>Block 1 Hypotheses (zero-order anticipating mediation to commitment and turnover intentions)</b>		
<b>H1a</b>	Employees who report more positive social relations on work teams will report higher levels of commitment to their organization and will be less likely to report an intention to leave.	Yes
<b>H1b</b>	Employees who report higher levels of effectiveness for their teams will be the more committed to their organization and less likely to report an intention to leave.	Yes
<b>H1c</b>	The more an employee participates in decision making on his or her work team, the higher will be the employee's organizational commitment and lower the intent to leave.	Partial
<b>H1d</b>	Employees who are members of teams that more closely approximate the "best" team structure will be more committed to their organization and less likely to leave. However, we do not expect this relationship to be as strong the relationship between commitment and the other three, more subjective, team measures.	Partial
<b>Block 2 Hypotheses: consequences and antecedents of personal mastery and work overload</b>		
<b>H2a</b>	Personal mastery will be positively and directly related to job satisfaction	Yes
<b>H2b</b>	Team participation will have a positive direct effect on personal mastery.	Yes
<b>H2c</b>	Team effectiveness will have a positive direct effect on personal mastery.	No
<b>H2d</b>	Team social relations will have a positive direct effect on personal mastery.	Yes
<b>H2e</b>	Team structure will have a positive direct effect on personal mastery.	No
<b>H2f</b>	Work overload will be negatively and directly related to job satisfaction.	Yes
<b>H2g</b>	All four aspects of team experience will be negatively and directly related to perceptions of work overload.	Partial
<b>H2m</b>	There will be positive zero-order relationships between all four team aspects and job satisfaction, but effects will be mediated via mastery and overload (e.g., no direct effects in structural model)	Partial
<b>Block 3 Hypotheses: consequences of job satisfaction</b>		
<b>H3a</b>	Perceptions of job satisfaction will be positively related to commitment	Yes
<b>H3m</b>	Job satisfaction will mediate the relationship between employees' perceptions of work overload and mastery and their organizational commitment. As part of mediation assessment, we expect negative, significant zero order relationship between overload and commitment and a positive, significant zero-order relationship between mastery and commitment.	Partial
<b>Block 4 and 5 Hypotheses: Commitment and Turnover</b>		
<b>H4a</b>	Organizational commitment will be strongly related to, but distinct from, turnover intentions.	Yes
<b>H4m</b>	Team experiences will indirectly influence commitment and turnover intentions via satisfaction and other employee attitudes.	Partial

Figure 1 – Conceptual Model with Hypotheses  
(Direct Paths)

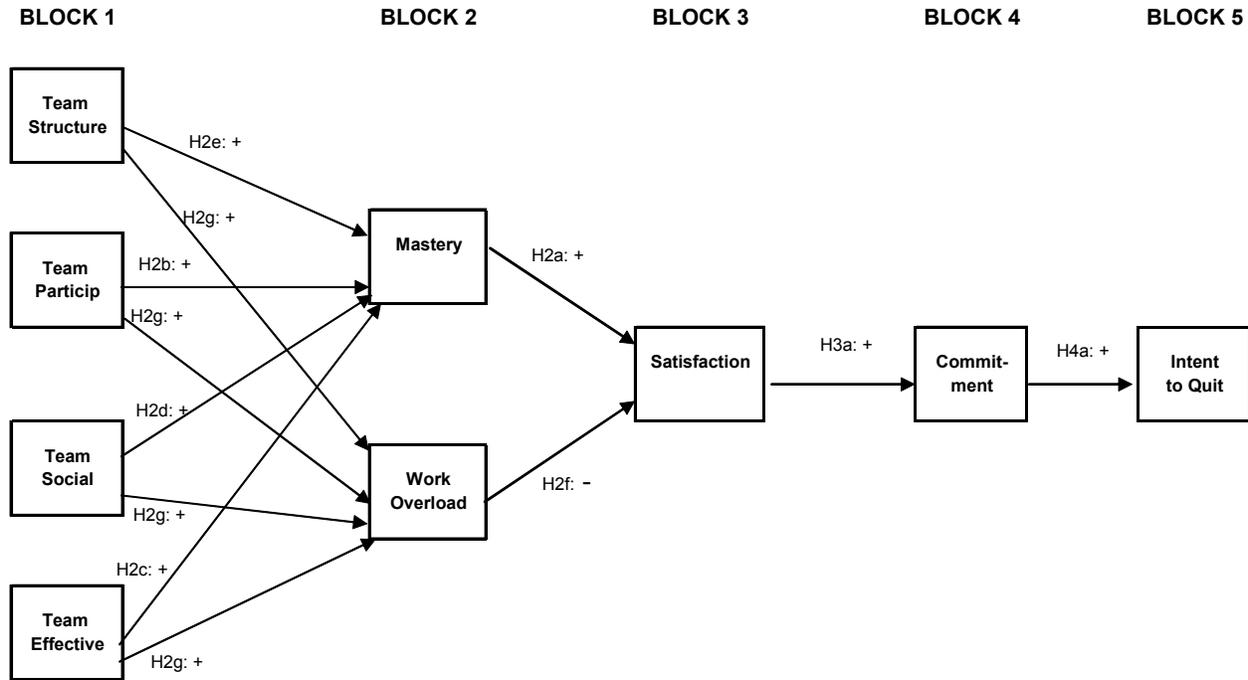
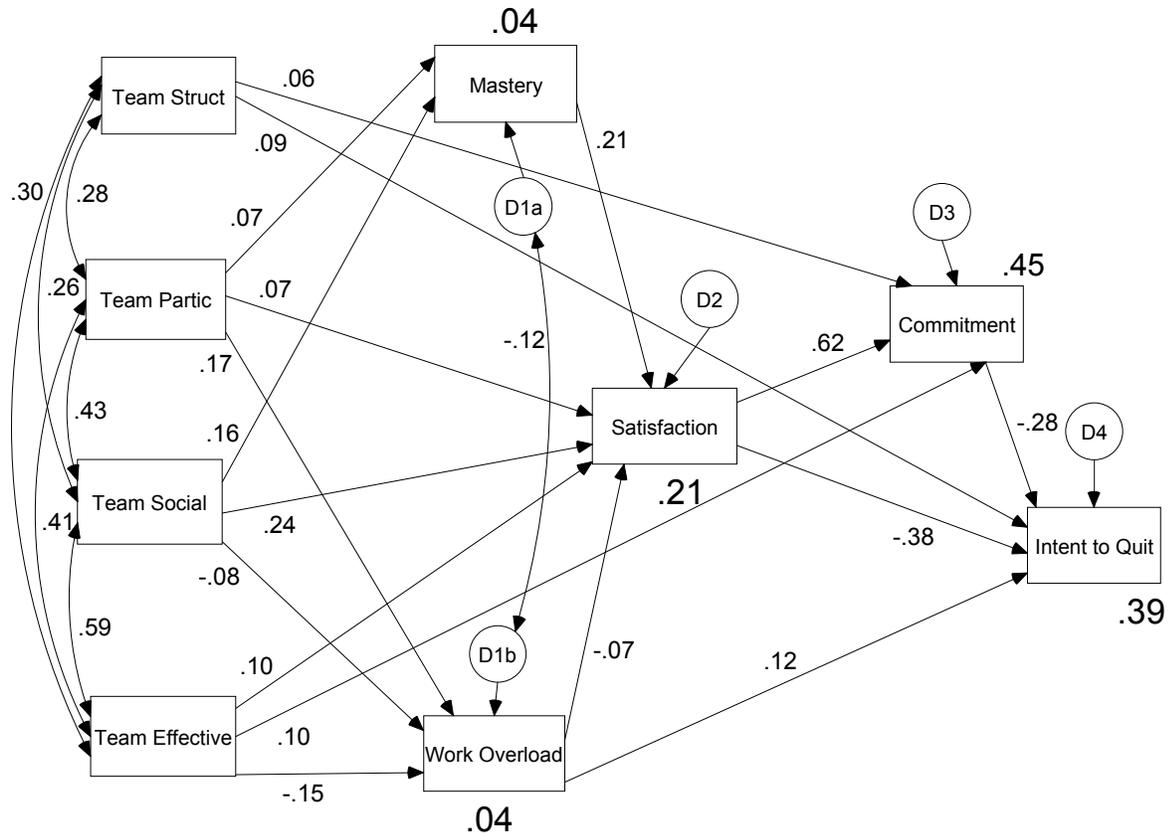


Figure 2 – Final Trimmed Model



## Endnotes

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<sup>1</sup> Longitudinal data are not available for all team measures used in this study as the focus of investigation in subsequent waves shifted to other topics. This cross-sectional analysis allows us to “dig deeper,” however, into team experiences and perceptions.

<sup>2</sup> This was done because our main focus in this study is on *layoff survivors*, those who have been through substantial layoffs but who continue to work for the firm. Because the last major round of layoffs occurred roughly 18 to 22 months prior to our survey, the “two-year” filter allowed us to exclude new-hires who had not experienced “downsizing.”

<sup>3</sup> GFI’s are best thought of very crude thresholds or hurdles to further analyses. Just as there is little consensus regarding which index is “best,” there is little consensus about what constitutes “adequate” vs. “good” vs. “excellent” fit. For the AGFI, NFI, TLI, and CFI, rules of thumb suggest that values greater than .90 can be interpreted as “adequate.” For “badness of fit” indices, numbers approaching 0 are preferred. For Chi2 and Chi2/df, values less than three are typically desired; for the RMSEA, values of .08 or less are adequate, whereas values less than .05 can be classified as good or very good (obviously, a .02 is excellent, whereas a .20 implies substantial gaps between the proposed model and the observed covariations).

<sup>4</sup> A significant zero-order relationship between independent and dependent variables is required in order for mediation questions to be addressed (Baron & Kenny, 1986; Judd & Kenny, 1981).

<sup>5</sup> Many SEM experts caution against purely empirically driven model trimming (MacCallum, 1986; MacCallum, Roznowski, & Necowitz, 1992) and we are highly sensitive to the fact that we switched from a confirmatory to more exploratory application of SEM. We tried to keep the essence of initial theory intact by maintaining the order of variables and the core idea of team experiences contributing to commitment and turnover through more complex pathways. At the same time, we did try to learn from the data and, if patterns and relationships simply did not mesh with our original thinking, we did not want to force square data into a round model. All adjustments were made via single degree of freedom tests (freeing a parameter at a time); Chi<sup>2</sup> difference tests were conducted to ensure that trimming had not incurred too high a cost in fit (the final model is more parsimonious but with statistically equivalent fit with the initial saturated model).

<sup>6</sup> Baron and Kenny’s (1986) often cited paper on mediation outlines the steps necessary to establish mediation; these steps were used to test all mediational hypotheses described in this paper. Assuming three latent variables, X1 (exogenous), Y1 (mediating endogenous), and Y2 (outcome endogenous), four conditions must be met to establish mediation: a) the zero-order correlations of X1 and Y2 is significant thereby establishing that there is an initial relationship to be mediated; b) the direct effect of X1 on Y1 is significant; c) the direct effect of Y1 on Y2 is significant (controlling for any joint effects of X1); and d) the effect of X1 on Y2 controlling for Y1 is zero (complete mediation) or significantly reduced (partial mediation).

<sup>7</sup> A longitudinal model including  $k$  intervening variables requires  $k+2$  points of measurement per Farrell, 1994. This means, for example, that a model incorporating one mediating variable ( $k$ ) would require 3 waves of data. Our current model would require 6 waves of data (4 mediators) and a much larger sample to provide stable output for the resulting very complex model.