

## Relationships Among Organizational Family Support, Job Autonomy, Perceived Control, and Employee Well-Being

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The authors analyzed data from the 2002 National Study of the Changing Workforce ( $N = 3,504$ ) to investigate relationships among availability of formal organizational family support (family benefits and alternative schedules), job autonomy, informal organizational support (work–family culture, supervisor support, and coworker support), perceived control, and employee attitudes and well-being. Using hierarchical regression, the authors found that the availability of family benefits was associated with stress, life satisfaction, and turnover intentions, and the availability of alternative schedules was not related to any of the outcomes. Job autonomy and informal organizational support were associated with almost all the outcomes, including positive spillover. Perceived control mediated most of the relationships.

*Keywords:* organizational family support, job autonomy, perceived control, work–family culture, positive spillover

Changes in the demographic nature of the American workforce over the past few decades have increasingly challenged employers, employees, and policymakers to develop strategies and tactics to balance competing demands of work and family lives. Without effective strategies in place, high levels of conflict between competing work and family demands can have negative effects at the workplace (higher turnover and absenteeism and reduced commitment and job satisfaction), at home (lower life and family satisfaction and higher rates of divorce), and on the individual (reduced mental and physical health and increased stress). From a societal perspective, the cumulative effect of individuals' decisions to react to conflicts by reducing family size may, as has become evident in certain European and Asian countries, lead to declines in demographic growth rates, threatening the health of national economies ("Survey: Forever Young," 2004).

One strategy adopted by organizations is to enact policies and programs aimed at providing employees with resources to help them manage their lives. *Working Mother* magazine's well-known ranking of "family-friendly" organizations takes these programs into account. Companies are scored on the number of work-life programs they offer, with particular weight given to flexible scheduling, advancement of women, and child-care resources. Many of these programs are becoming increasingly available. For example, 43% of employees now have access to some form of flextime, compared with 29% of employees 10 years ago (J. T. Bond, Thompson, Galinsky, & Prottas, 2003).

Despite their popularity, family-friendly initiatives may not be as important as how supportive the organizational culture is toward work-life balance or how supportive individual supervisors and coworkers are (Allen, 2001; Thompson, Beauvais, & Lyness, 1999). A supportive work–family culture increases the likelihood that employees will feel comfortable using family-friendly benefits like flextime, as they are less likely to worry about possible negative career consequences (Thompson et al., 1999). Additionally, to the extent that organizational cultures are less observable and imitable than a portfolio of human resource practices, a supportive culture may confer a competitive advantage to those organizations that are willing to develop one.

In addition to a supportive culture, the nature of the job itself has an impact on the ability of employees to integrate work and family (e.g., Perlow, 2001). Spe-

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cifically, a job that allows employees autonomy and discretion in how and when the job gets done should enable employees to better meet multiple conflicting work and nonwork demands. For example, Grzywacz and Marks (2000) found that greater decision latitude and less pressure at work were related to positive spillover between work and family. To date, work–family researchers and practitioners have not embraced job design as a key strategy to reduce work–family conflict.

Finally, it is important to understand not just whether but why these organizational practices may be related to employees' ability to integrate work and family roles, as well as their overall mental health and well-being. Although some researchers have found support for the mediating role of work–family conflict (e.g., Anderson, Coffey, & Byerly, 2002), we believe that perceived control may be an important mechanism for influencing the relationship between organizational strategies and employee health and well-being. To the extent that formal and informal organizational support, as well as job design, increase an employee's sense of control, stress and strain should be reduced, quality of the work–family interface should be enhanced, and job, family, and life satisfaction should be higher than when an organization does not provide these supports.

While much of the work–family literature focuses on conflict caused by competing roles and demands, there is evidence that jobs can have a positive effect on employees' nonwork lives and vice versa (Barnett & Hyde, 2001; Grzywacz & Marks, 2000; Kirchmeyer, 1992). When things go well at work, for

example, the positive mood that results can spill over to other realms of the employees' life. Beyond looking at variables that may be predictive of negative outcomes in the work–family interface, researchers need to examine those that may contribute to positive outcomes as well.

To increase our understanding of organizational factors that influence employees' ability to balance work and family, as well as study possible positive outcomes that may result from participating in multiple roles, the present study investigated the relative influences of available formal organizational family support (dependent-care benefits and alternative schedule policies), job characteristics (perceived autonomy), and informal organizational support (from supervisors, coworkers, and organizational culture) on outcomes such as employee stress, quality of work–family interface (positive or negative), turnover intention, and job, family, and life satisfaction. We also investigated the role of perceived control as a mediator between formal and informal organizational support, job autonomy, and the outcome variables. The proposed relationships are shown in Figure 1. The following sections review literature relevant to our hypotheses.

### Related Literature

To ease conflicts that often occur between work and family, some organizations offer their employees family-friendly or work-life programs and benefits. These formal programs include dependent-care assistance, parental leave, flexible work arrangements,

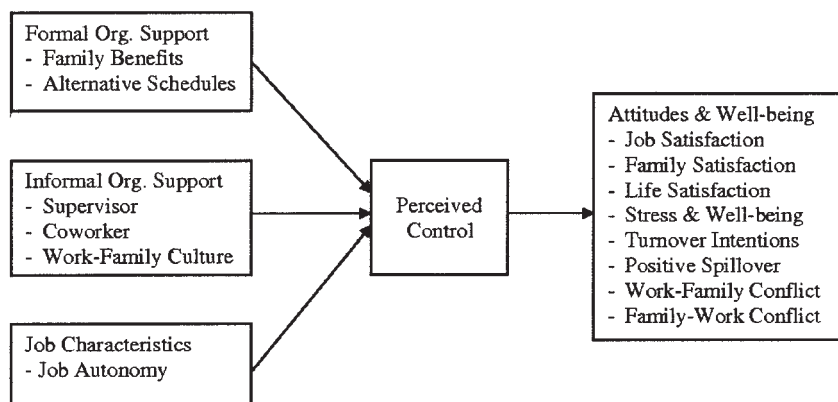


Figure 1. Proposed model of relations among forms of support and attitudes and well-being.  
Org. = Organizational.

resource and referral services, and direct financial assistance, such as help with adoption expenses. Voydanoff (2004) referred to these programs as boundary-spanning resources because they focus on the interface between work and family.

Research on the effectiveness of these programs has considered them singly or as a bundle of work-life practices, has largely focused on individual-level outcome variables, and has considered both the use of and availability of the programs. For example, several studies found that flexible work schedules were related to lower levels of work-family conflict (Hammer, Allen, & Grigsby, 1997; Shinn, Wong, Simko, & Ortiz-Torres, 1989; Thomas & Ganster, 1995), fewer somatic complaints (Thomas & Ganster, 1995), and higher affective commitment to the organization (Grover & Crooker, 1995). Goff, Mount, and Jamison (1990) found that employer-supported child care was directly related to lower levels of work-family conflict and indirectly related to reduced absenteeism. Lambert (2000) found that the number of benefits used by employees was related to higher levels of organizational citizenship behavior. In a representative sample of U.S. employees, Grover and Crooker (1995) found that those whose employers offered family responsive benefits (e.g., flexible schedules, child-care information service) were more committed to their organization and were less likely to be thinking about looking for a new job, regardless of whether they actually used the benefit. Similarly, Thompson et al. (1999) found that simply having benefits available to employees was related to lower work-family conflict, less intention to leave the organization, and higher affective commitment. However, several studies found either nonexistent or weak relationships between benefits offered or used by employees and work-family conflict (Anderson et al., 2002; Batt & Valcour, 2003; Haar & Spell, 2004) or job satisfaction (Shinn et al., 1989). Thompson, Jahn, Kopelman, and Prottas (2004) found that the number of organizational practices was positively related to employee affective commitment toward their employer but had no impact on family-to-work conflict; however, perceived organizational family support was positively associated with both affective commitment and lower levels of work-to-family conflict.

Because family-friendly benefits, policies, and programs are intended to make it easier for employees to integrate and manage their work and family responsibilities, and because these programs appear to symbolize organizational support for the "whole" employee (Grover & Crooker, 1995), employees (re-

gardless of family status) of organizations that offer such benefits should enjoy greater job, family, and life satisfaction and have less intention to quit than employees of organizations that do not. Employees should also experience lower levels of stress, work-family conflict, and higher levels of positive spillover between work and family. Therefore, we hypothesized the following:

*Hypothesis 1:* The availability of family-friendly benefits will be negatively related to stress, work-family conflict, and intentions to quit and positively related to positive spillover and job, family, and life satisfaction.

Another important but relatively neglected influence on employees' ability to integrate work and family is the nature of the jobs they perform. In particular, work-family scholars have argued that job autonomy—the ability to decide when, where, and how the job is to be done (Bailyn, 1993; Clark, 2001)—most likely has an influence on an employee's well-being as well as his or her family life. In fact, research to date suggests that employees who have a say over how they do their jobs are more satisfied with their jobs (Clark, 2001; Hackman & Oldham, 1976; Parasuraman & Alutto, 1984), are more likely to describe their families as cohesive (Clark, 2001), and experience less stress (Parasuraman & Alutto, 1984) and less family-to-work conflict (Parasuraman, Purohit, Godshalk, & Beutell, 1996). However, Batt and Valcour (2003) found no relationship between autonomy and a two-item measure of work-to-family conflict. Grzywacz and Marks (2000) found that decision latitude on the job, a concept similar to job autonomy, was strongly related to positive work-to-family and family-to-work spillover, and Voydanoff (2004) found that autonomy was related to positive work-to-family spillover, or what she referred to as work-family facilitation. It follows that employees who have discretion over the way in which they perform their job are better able to integrate their work and family lives. Therefore, we predict the following:

*Hypothesis 2:* Job autonomy will be negatively related to stress, work-family conflict, and intentions to quit and positively related to positive spillover and job, family, and life satisfaction.

In addition to formal organizational support in the form of family-friendly benefits and jobs designed to allow employees autonomy to perform the job their

way, it is also important to consider the informal context of the job when attempting to understand the relationship between work and family (Allen, 2001; Anderson et al., 2002; Behson, 2002; Colton, Hammer, & Neal, 2002; Thompson et al., 1999). In fact, recent research suggests that the informal context—that is, the supportiveness of the organization's overall culture as well as the supportiveness of individual supervisors—may be more important than the actual work–family programs and benefits offered by an organization (Allen, 2001; Anderson et al., 2002; Thompson et al., 1999). Thompson et al. (1999), for example, found that work–family culture, which they defined as the shared assumptions, beliefs, and values regarding the degree to which an organization supports and values work–family integration, was positively related to affective commitment and negatively related to work-to-family conflict and intentions to quit. Most important, work–family culture was related to these attitudes even after controlling for the availability of family-friendly benefits. Similarly, Allen (2001) found that employees who perceived their organizations as family supportive had lower levels of work–family conflict and turnover intentions and higher levels of job satisfaction and organizational commitment, even after controlling for the effects of work–family benefits. Other research also supports the importance of a supportive workplace culture (e.g., Anderson et al., 2002; J. T. Bond et al., 2003; Casper, Martin, Buffardi, & Erdwins, 2002; O'Driscoll et al., 2003).

Supervisor or managerial support is another aspect of the informal work context that appears to influence employees' ability to integrate work and family. Thomas and Ganster (1995) defined a supportive supervisor as one who “empathizes with the employee's desire to seek balance between work and family responsibilities” (p. 7). Examples might include allowing personal calls home after a child returns from school, supporting an employee's participation in a flexible work schedule, being understanding when an employee must occasionally leave early to pick a child up from daycare or take an elderly parent to the doctor, or not penalizing employees for taking advantage of flextime or flexplace programs. Research suggests that employees who have supportive supervisors or managers are less likely to experience work–family conflict (Anderson et al., 2002; Goff et al., 1990; Thomas & Ganster, 1995) and have lower levels of work distress (Frone, Yardley, & Markel, 1997), lower levels of absenteeism (Goff et al., 1990), less intention to quit (Thompson et al., 1999), and higher job satisfaction (Thomas & Ganster,

1995). Thompson et al. (2004) found that supervisory family support was positively related to affective commitment and negatively related to job search behavior, even after controlling for work–family practices offered.

Supervisor support has also been shown to be indirectly related to work–family conflict. Employees who have supportive supervisors are more likely to perceive their organization as family supportive (Allen, 2001) or perceive that they have more control over work and family (Thomas & Ganster, 1995), which in turn are related to lower levels of work–family conflict.

Although less frequently studied, coworker support is another aspect of the informal work environment that may influence an employee's ability to integrate work and family. The research available suggests that coworker support does make a difference, although it is difficult to disentangle the effects of supervisor versus coworker because in some studies the items were combined into a single measure (e.g., Grzywacz & Marks, 2000) or the items were combined with another construct (e.g., job satisfaction; Anderson et al., 2002). Frone et al. (1997) measured coworker support as a separate construct and found that it was negatively related to work distress and indirectly related to work-to-family and family-to-work conflict. Loscocco and Spitze (1990) found that employees who had satisfying relations with their coworkers had less job distress.

Social support from work may be more strongly related to reduced levels of work-related stress, but when the support is focused on helping employees cope with competing demands (e.g., as when an employee must leave early to pick up a sick child from school, or when an employee wants the afternoon off to attend his son's graduation), then coworker and supervisor support should be related to lower levels of work–family conflict as well as positive attitudes toward work. Thus, we hypothesized the following:

*Hypothesis 3:* Informal organizational support for work–family balance (i.e., supportive work–family culture, supportive supervisor, supportive coworkers) will be negatively related to stress, work–family conflict, and intentions to quit and positively related to positive spillover and job, family, and life satisfaction.

Finally, little is known about the psychological processes linking work and family (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). Specifically, what

is the mechanism through which formal and informal organizational support and job autonomy affect employee attitudes, behaviors, and well being? Several researchers have proposed and found support for work–family conflict as the link between various work- and family-related predictors (e.g., work demands, family demands, work expectations, work overload, work conflict, family conflict) and various outcome variables (e.g., job and life satisfaction, depression, somatic complaints, turnover intentions, life distress, job burnout). For example, family-to-work conflict mediated the relationship between low job autonomy and greater life stress and lower career satisfaction (Parasuraman et al., 1996). Similarly, work-to-family conflict mediated the relationship between work overload and lower performance in the family domain (Frone et al., 1997). However, what is it about job autonomy, work overload, or the other predictors that influence perceptions of work-to-family conflict? The findings of three recent studies (Adams & Jex, 1999; Batt & Valcour, 2003; Thomas & Ganster, 1995) suggest that employee perceptions of control might be key. Batt and Valcour (2003), for example, found that decision-making autonomy on the job increased employees' perceptions of having control over their jobs. If employees have control over their jobs, it seems likely that they would, in turn, have more control over other aspects of their lives.

According to Greenberger and Strasser (1986) and others (e.g., Ganster, Fox, & Dwyer, 2001), individuals are motivated to seek control over their environment, and this control is necessary for their health and well-being (F. W. Bond & Bunce, 2003; Marmot, Bosma, Hemingway, Brunner, & Stansfield, 1997). They defined personal control as a psychological construct that reflects an employee's beliefs about his or her ability to change the environment, and they argued that perceptions of control can be influenced by the attitudes and behaviors of others (e.g., supervisors and coworkers). They did not consider control to be a stable personality trait and as such differentiated it from the concept of locus of control (Rotter, 1966). Greenberger and Strasser (1986) argued that there are a variety of situations in organizations that can either increase perceptions of control or decrease them. For example, denying an employee her request for time off may decrease her sense of control, whereas allowing an employee to occasionally work from home may increase control perceptions.

Only two studies to date have investigated perceptions of control as a possible mediating variable for the work–family interface. Thomas and Ganster (1995) found that perceptions of control and work–family conflict mediated the relationships between

both supervisor support and the availability of flexible schedules and job satisfaction, depression, cholesterol levels, and somatic complaints. Adams and Jex (1999) found that perceived control mediated the relationship between time management strategies (e.g., setting goals and priorities) and health and job satisfaction. These findings suggest that perceptions of control may be an important linking mechanism in the work–family interface.

Despite these encouraging findings, both Batt and Valcour (2003) and Thomas and Ganster (1995) measured control in terms of flexibility available on the job (e.g., being able to choose starting and ending times at work) rather than actual perceptions of control. It is possible, for example, that certain kinds of flexibility at work do not affect perceptions of control. This distinction is akin to the relationship between stressors and stress: Particular work stressors do not always lead to employee perceptions of stress. To tease out this distinction, we conceptualized job autonomy as the degree to which the job *provides* the freedom and discretion to schedule work and decide which procedures to use in carrying out the job (Hackman & Oldham, 1976), and we conceptualized perceived control as the felt experience of control. Indeed, as noted by Batt and Valcour (2003), “autonomy in decision making *should translate into* [italics added] greater employee ability to control decisions over when, where, and how to integrate work and family responsibilities” (p. 196). This suggests that autonomy and control are not one and the same.

For this study, then, we hypothesized that formal and informal organizational support, as well as high levels of job autonomy, should enhance employees' perceptions of control, which in turn should be related to reduced levels of stress, work–family conflict, and intentions to quit and increased levels of positive home and job spillover and job, family, and life satisfaction.

*Hypothesis 4:* Perceptions of control will mediate the relationship between the independent variables (i.e., family-friendly benefits, job autonomy, and organizational support for work–family integration) and the outcome variables.

## Method

### Sample

We used data from the 2002 National Study of the Changing Workforce (NSCW), a telephone survey conducted by Harris Interactive, Inc. for the Families and Work

Institute (see J. T. Bond et al., 2003, for complete details). Respondents were a nationally representative sample of employed adults ( $N = 3,504$ ). For this study, we used data from 2,810 wage and salaried employees who work for others, thereby excluding the self-employed. Interviews averaged 40 min in length and were conducted by telephone using a computer-assisted telephone interviewing system. Calls were made to an unclustered random probability sample, stratified by region. As necessary, 30 or more calls were made per telephone number to determine eligibility and to complete interviews.

Sample eligibility was limited to people who worked at a paid job or operated an income-producing business, were 18 years or older, were in the civilian labor force, resided in the contiguous 48 states, and lived in a noninstitutional residence—that is, household—with a telephone. In households with more than one eligible person, one was randomly selected to be interviewed. As an incentive, interviewees were offered cash honoraria of \$25 that they could keep or donate to one of seven charities. J. T. Bond et al. (2003) estimated the response rate to be 61%.

Our resulting sample was 51% female; 64% were married or in a similar arrangement, 72% had responsibility for children or elderly or disabled dependents, and 9% were single parents. A majority were in nonmanagerial or non-professional positions (59%), and 19% were in manufacturing rather than service industries.

## Measures

All items in the NSCW were developed by the Families and Work Institute in consultation with experts in the field; many of the items were drawn from preexisting scales (see J. T. Bond et al., 2003). In addition, many of the items were drawn from the 1977 Quality of Employment Survey (Quinn & Staines, 1979) so that items could be compared across years. Specific scale items used in this study are available from Cynthia A. Thompson.

*Family-friendly benefits offered.* The availability of two types of family-friendly benefits was assessed. Following Thomas and Ganster (1995), we measured benefit availability rather than usage because availability appears to symbolize for all employees that the organization cares about their well-being. In addition, measuring usage might create issues of reverse causality because those employees who have demanding family situations may be more likely to use the benefits (Batt & Valcour, 2003). *Family benefits* was assessed by seven items (e.g., availability of a child-care or elder-care resource and referral service, financial assistance with child care, child-care center onsite or nearby, health insurance for family members); benefit availability was rated on a yes/no scale where 1 = *yes*. Items were summed to create a total score. The availability of *alternative work schedules* was measured by seven items (e.g., ability to choose their own starting and quitting times, ability to work at home, availability of part-time work, compressed work hours, part-year work), each rated on a yes/no scale. Items were summed to create a total score.

*Job autonomy.* Job autonomy was measured by four items: “I have the freedom to decide what I do on my job,” “I have a lot of say about what happens on my job,” “I decide when I take breaks,” and “It is basically my own responsibility to decide how my job gets done.” Items were

rated on a 4-point Likert scale where 1 = *strongly agree* to 4 = *strongly disagree*. Coefficient alpha was .71. Items were reverse scored so that higher scores represent higher levels of autonomy.

*Informal organizational support for work-family balance.* Three aspects of informal organizational support were measured: supportive work-family culture, supportive supervisor or manager, and supportive coworkers. For each support scale, items were measured on a 4-point Likert scale that ranged from 1 = *strongly agree* to 4 = *strongly disagree*; scores were reverse coded so that high scores represented a more supportive culture, supervisor, or coworkers. *Supportive work-family culture* was measured by 4 items, including “There is an unwritten rule at my place of employment that you can’t take care of family needs on company time” and “At my place of employment, employees who put their family or personal needs ahead of their jobs are not looked on favorably.” Coefficient alpha was .71. *Supervisor support* was measured by 11 items that tapped general support at work (e.g., “My supervisor is supportive when I have a work problem”) and support related to work-life balance (e.g., “My supervisor cares about the effects of work on personal/family life”). Coefficient alpha was .91. *Coworker support* was measured by 3 items (e.g., “I have the coworker support I need to manage work and family life”). Coefficient alpha was .74.

*Perceived control.* Perceived control was measured by one item: “In the last month, how often have you felt that you were unable to control the important things in your life?” This item was measured on a 5-point Likert scale that ranged from 1 = *never* to 5 = *very often*, and it was reverse scored so that higher scores represent higher levels of personal control.

*Stress and well-being.* Stress and well-being were measured by nine items, including, for example, “In the last month, how often have you felt nervous and stressed?” “How often have you felt that difficulties were piling up so high that you could not overcome them?” (rated on a 5-point Likert-type scale that ranged from 1 = *never* to 5 = *very often*), and “How stressful has your personal and family life been in recent months? (rated on a 5-point scale that ranged from 1 = *extremely stressful* to 5 = *not stressful at all*). Two items tapped depression (e.g., “During the past month, have you been bothered by feeling down, depressed, or hopeless?”) and were rated 1 = *yes* and 2 = *no*. These two items have been shown to work well as an initial screening for depression (Whooley, Avins, Miranda, & Browner, 1997). Items were standardized and averaged to create scores. Coefficient alpha was .82.

*Positive spillover and work-family conflict.* To assess positive spillover from job-to-home and home-to-job, the Families and Work Institute developed four new items (two assessing each direction of spillover) and added them to the 2002 version of the NSCW survey. The items were developed to parallel the negative spillover items in the survey, which were drawn from frequently used work-family conflict measures. Because the positive items were new, we factor analyzed all 14 positive and negative items using varimax rotation. Results suggested a three-factor solution: 5 items loaded on a factor that tapped work-to-family conflict (accounting for 34.9% of the variance, with factor loadings that ranged from .69 to .78); 5 items loaded on a family-to-work conflict factor (accounting for 14.4% of the variance, with factor loadings that ranged from .62 to .76);

and 4 items loaded on a positive spillover factor that included both positive job-to-home spillover and positive home-to-job spillover items (which accounted for 9.9% of the variance, with factor loadings that ranged from .67 to .74).

For each scale, items were measured on a 5-point Likert-type scale that ranged from 1 = *very often* to 5 = *never*. Scales were reverse scored so that higher scores represented higher levels of conflict or spillover. Sample items include "In the past three months . . . how often have you not had enough time for your family or other important people in your life because of your job?" (*work-to-family conflict*), ". . . how often has your family or personal life drained you of the energy you needed to do your job?" (*family-to-work conflict*), and ". . . how often have you been in a better mood at work because of your personal or family life?" (*positive spillover*). Coefficient alphas were .82, .87, and .65, respectively.

*Intentions to quit.* One item measured intentions to quit: "Taking everything into consideration, how likely is it that you will make a genuine effort to find a new job with another employer within the next year?" This item was rated on a 3-point scale ranging from 1 = *very likely* to 3 = *not at all likely*. The item was reverse scored so that a high score indicated a greater likelihood of looking for a new job.

*Satisfaction with job, marriage, family, and life.* Job satisfaction was measured by three items (e.g., "All in all, how satisfied are you with your job?" which used a 4-point scale: 1 = *very satisfied* to 4 = *not satisfied at all*, and "Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide?" which used a 3-point scale: 1 = *take same job again without hesitation* to 3 = *definitely not take same job*). Items were reverse scored, standardized, and averaged to create an index of job satisfaction. Coefficient alpha for job satisfaction was .71. *Family/marriage satisfaction* was assessed by two items, "All in all, how satisfied are you with your family life?" and "All in all, how satisfied would you say you are with your marriage (or relationship with your partner)?" Coefficient alpha for family/marriage satisfaction was .73. *Life satisfaction* was measured by one item, "All things considered, how do you feel about your life these days?" Family and life satisfaction items were rated on a 4-point Likert scale that ranged from 1 = *very satisfied* to 4 = *very dissatisfied*, and satisfaction with marriage/relationship used a scale that ranged from 1 = *extremely satisfied* to 4 = *not too satisfied*.

*Control variables.* Control variables used in the analyses included gender, age, marital status, education, family income, as well as family demands and work demands. Gender was coded as 1 = *male*, 2 = *female*; marital status was coded as 1 = *spouse or partner in residence*, 2 = *other*; education was coded as 1 = *less than high school*, 2 = *high school or GED*, 3 = *some college/no degree*, 4 = *associate degree*, 5 = *4-year college degree*, and 6 = *graduate or professional degree*. Age and family income were coded as continuous variables. Family income was logarithmically transformed for all analyses.

*Family demands* was operationalized based on a weighting scheme developed by Rothausen (1999), who recognized that children of different ages as well as adult dependents who require different amounts of care put differential demands on employees. Scores were based on the ages for each dependent child who lived with them, the number of

noncustodial children, and whether they provided additional care for a disabled child, elder person, or other disabled adult. We assigned a weight to each child and category of dependent and then summed the weights. For example, a child under 1 was weighted "7" whereas a child between 3 and 5 was weighted "6" and any noncustodial child "3." The full protocol is available from Cynthia A. Thompson.

*Work demands* was operationalized in two ways: the number of hours worked and job pressure. Job pressure was measured by nine items (e.g., "My job requires that I work very hard" and "My job is very physically demanding and tiring," rated on a 4-point scale that ranged from 1 = *strongly agree* to 4 = *strongly disagree*; and "How often in the past three months have you been asked by your supervisor or manager to do excessive amounts of work?" rated on a 5-point scale that ranged from 1 = *very often* to 5 = *never*). Items were standardized and reverse scored so that higher scores represented higher levels of job pressure. Coefficient alpha for job pressure was .80.

### Preliminary Analyses

To test the validity of our constructs, we performed confirmatory factor analysis (CFA) using structural equation modeling with LISREL (Version 8.12; Jöreskog & Sörbom, 1993). The CFA model's fit statistics showed that the measurement model had good fit:  $\chi^2(1540, N = 1,364) = 5,748, p < .001; \chi^2/df = 3.7$ ; goodness-of-fit index (GFI) = .87; adjusted goodness-of-fit index (AGFI) = .86; normed fit index (NFI) = .95; comparative fit index (CFI) = .97; and root-mean-square error of approximation (RMSEA) = .045. The significant chi-square value can be disregarded because of its sensitivity to the sample size and large number of items (Hair, Anderson, Tatham, & Black, 1998). The ratio of  $\chi^2/df$  was above the recommended value of 3. The fit statistics values were at or above the recommended thresholds of .9 for NFI and CFI, above .8 for AGFI, and the RMSEA value was below the recommended value of .10 (Hair et al., 1998). All of the items loaded significantly on their assigned latent constructs, although some of the items had coefficients below the recommended threshold of .70. Cronbach's alpha values for all constructs except one were above the recommended .70 value, indicating good reliability (Nunnally, 1967). For positive spillover, coefficient alpha was .65, approaching Nunnally's recommendation of .70.

### Analyses

We used hierarchical multiple regression to test all hypotheses. In the first step, we entered age, gender, education, and family income as control variables. Because work-family conflict, stress, and the other outcome variables are often related to job demands, hours worked, and family demands (Gutek, Searle, & Klepa, 1991; Judge, Boudreau, & Bretz, 1994; Thompson et al., 1999), these variables were included as control variables as well (Step 2). To test Hypothesis 1, we added family benefits and alternative scheduling benefits simultaneously in Step 3; for Hypotheses 2, job autonomy was added in Step 4; and for Hypothesis 3, the three informal organizational support variables were added simultaneously in Step 5. For Hypothesis 4, we

tested for mediation using Baron and Kenny's (1986) mediated regression technique and used Sobel's (1982) test to determine the significance of the mediation.

## Results

Table 1 provides means, standard deviations, reliabilities (Cronbach's alpha), and intercorrelations for all the variables in the study. Table 2 shows the relationships between the control variables and the outcomes. Gender was positively related to stress and job satisfaction (women reported more stress and higher job satisfaction) and negatively related to turnover intentions (men were more likely to think of leaving their jobs). Age was negatively related to stress, turnover intentions, and both forms of work-family conflict and positively related to job and life satisfaction. Marital status (being single) was negatively related to family and life satisfaction and positive spillover. Education was negatively related to stress and family satisfaction and positively related to both forms of work-family conflict. Family income was negatively related to stress and turnover intentions and positively related to family and life satisfaction and work-to-family conflict. Finally, the correlation between perceived control and job autonomy was .11 ( $p < .001$ ), and alternative work schedules was .07 ( $p < .001$ ), supporting our view that these constructs are distinct.

Not surprisingly, family demands and job pressures (see Tables 2, 3, 4, and 5) were positively associated with numerous adverse outcomes (stress:  $R^2 = .17$ ,  $\Delta R^2 = .11$ ,  $p < .001$ ; family-to-work conflict:  $R^2 = .12$ ,  $\Delta R^2 = .10$ ,  $p < .001$ ; and work-to-family conflict:  $R^2 = .32$ ,  $\Delta R^2 = .29$ ,  $p < .001$ ) and negatively associated with favorable outcomes (life satisfaction:  $R^2 = .08$ ,  $\Delta R^2 = .05$ ,  $p < .001$ ; and family satisfaction:  $R^2 = .12$ ,  $\Delta R^2 = .02$ ,  $p < .001$ ). However, only job pressure was negatively associated with job satisfaction ( $R^2 = .08$ ,  $\Delta R^2 = .05$ ,  $p < .001$ ) and positive spillover ( $R^2 = .02$ ,  $\Delta R^2 = .01$ ,  $p < .01$ ); it was positively associated with turnover intentions ( $R^2 = .12$ ,  $\Delta R^2 = .02$ ,  $p < .001$ ). According to Cohen's (1992) effect size classification for multiple regression, the incremental  $f^2$  for Step 2 reached the threshold for a large effect (0.35) only for work-to-family conflict (0.40) and reached the threshold for small effect (0.02) for stress (0.11), job satisfaction (0.05), family satisfaction (0.02), life satisfaction (0.04), turnover intention (0.02), and family-to-work conflict (0.11). It appears that the influence of job pressures and family demands may be asymmetric: Job pressures were associated with both

work- and family-related attitudes, whereas family demands were more related to attitudes in the domestic domain. Hours worked was positively related to work-to-family conflict but not to other outcomes. It may be that long hours on the job are not linked to negative outcomes for everyone, as presumably some people work longer hours because they enjoy their jobs (Brett & Stroh, 2003; Friedman & Lobel, 2003). It may also be that it is not long hours per se that affects the well-being of employees but the nature of the work or the pressure on the job that is more important.

Hypotheses 1 and 2 were tested using hierarchical regression (see Tables 2–5). Hypothesis 1 was essentially unsupported because family-friendly benefits had associations with some but not all of the outcomes. When family benefits and alternative scheduling benefits were entered as a third step after the two sets of control variables, family benefits were associated with less stress ( $R^2 = .18$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ) and lower turnover intentions ( $R^2 = .13$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ). Both family benefits and alternative schedule benefits were associated with greater life satisfaction ( $R^2 = .09$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ), whereas only alternative scheduling was associated with greater job satisfaction ( $R^2 = .10$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ). Neither set of policies was associated with reductions in either form of work-family conflict or positive spillover between the work and family domains, suggesting that the simple availability of policies and benefits does not affect the quality of the interaction between these two domains. With respect to both sets of policies, the effect size of the incremental variance explained did not reach Cohen's threshold to be considered small.

Hypothesis 2 was largely supported. With the exception of family-to-work conflict, when added as Step 4 job autonomy was positively associated with all the favorable outcomes (job satisfaction:  $R^2 = .17$ ,  $\Delta R^2 = .10$ ,  $p < .001$ ; family satisfaction:  $R^2 = .13$ ,  $\Delta R^2 = .00$ ,  $p < .01$ ; life satisfaction:  $R^2 = .10$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ; and positive spillover:  $R^2 = .03$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ) and negatively with unfavorable outcomes (stress:  $R^2 = .19$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ; turnover intention:  $R^2 = .14$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ; and work-to-family conflict:  $R^2 = .33$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ). Overall, the incremental variance explained by job autonomy did not reach Cohen's threshold for small effect size, except for job satisfaction, which at 0.09 neared the threshold for medium (0.15).

Hypothesis 3 was fully supported. When entered simultaneously in the fifth step, support from super-



Table 1  
Basic Statistics and Correlations

Variable	M	SD	N	1	2	3	4	5	6	7	8
Demographics											
1. Sex	1.58	0.49	2,810	—							
2. Age	41.71	12.59	2,785	.04	—						
3. Marital	1.36	0.48	2,803	.09***	-.12***	—					
4. Education	3.71	1.50	2,810	.03	.09***	-.04	—				
5. Family income	10.77	0.88	2,674	-.08***	.33***	-.49***	.40***	—			
Demands											
6. Family	8.09	7.52	2,810	.01	.14***	-.25***	-.08***	.12***	—		
7. Job pressure	0.01	0.62	2,810	.03	-.06**	-.03	.10***	.12***	.06**	(.80)	
8. Job hours	44.89	13.11	2,796	-.24***	.02	-.06**	.14***	.25***	.04	.29***	—
Formal support											
9. Family benefits	2.52	1.65	2,802	-.08***	.08***	-.09***	.22***	.31***	.00	.08***	.23***
10. Alternative schedule	2.33	1.56	2,810	.01	-.01	-.02	.21***	.09***	.00	-.04	-.04
Job characteristic											
11. Job autonomy	2.99	0.75	2,810	-.08***	.10***	-.05***	.19***	.20***	-.01	-.08***	.07***
Mediator											
12. Perceived control	3.80	1.16	2,804	-.05*	.06**	-.05**	.03	.09***	-.08***	-.18***	-.02
Informal support											
13. Supervisor	3.32	0.62	2,554	.04	.02	-.01	-.02	-.02	.00	-.27***	-.08***
14. Coworker	3.43	0.62	2,805	.06**	.04	-.03	.02	.04	.02	-.13***	-.04
15. Work-family culture	3.02	0.75	2,810	.08***	.05	-.06**	.15***	.10***	-.03	-.31***	-.06**
DVs											
16. Stress and well-being	0.02	0.64	2,810	.13***	-.15***	.10***	-.11***	-.10***	.09***	.29***	-.01
17. Job satisfaction	-0.01	0.79	2,810	.08***	.14***	-.08***	.04	.10***	.05	-.20***	-.03
18. Family satisfaction	3.13	0.78	2,147	-.08**	.06*	-.29***	.05	.19***	-.10***	-.11***	-.02
19. Life satisfaction	3.27	0.69	2,805	-.02	.10***	-.18***	.09***	.18***	-.03	-.16***	-.01
20. Turnover intention	1.52	0.75	2,801	-.05**	-.26***	.15***	-.08***	-.26***	-.05**	.11***	-.04
21. Family-to-work conflict	2.08	0.69	2,807	.03	-.11	.04	.09***	-.01	.12***	.30***	.08***
22. Work-to-family conflict	2.50	0.88	2,804	-.02	-.10***	-.04	.10***	.07***	.10***	.53***	.27***
23. Positive spillover	2.97	0.78	2,805	-.02	.03	-.07***	.02	.03	.04	-.07***	-.02

Note. Certain demographic variables were categorical: sex (1 = male, 2 = female); marital (1 = spouse or partner in residence, 2 = other); education (1 = less than high school, 2 = high school or GED, 3 = some college/no degree, 4 = associate degree, 5 = 4-year college degree, 6 = graduate or professional degree). Family income was a logarithmic transformation. Stress and job satisfaction are reported as the means of standardized variables. Reliability estimates are reported in parentheses along the diagonal. DVs = dependent variables.  
\*\*  $p < .01$ . \*\*\*  $p < .001$ .

visors, coworkers, and culture was positively associated with all favorable outcomes (job satisfaction:  $R^2 = .43$ ,  $\Delta R^2 = .16$ ,  $p < .001$ ; family satisfaction:  $R^2 = .15$ ,  $\Delta R^2 = .02$ ,  $p < .001$ ; life satisfaction:  $R^2 = .16$ ,  $\Delta R^2 = .06$ ,  $p < .001$ ; and positive spillover:  $R^2 = .08$ ,  $\Delta R^2 = .05$ ,  $p < .001$ ) and negatively associated with all adverse outcomes (stress:  $R^2 = .23$ ,  $\Delta R^2 = .04$ ,  $p < .001$ ; turnover intentions:  $R^2 = .22$ ,  $\Delta R^2 = .08$ ,  $p < .001$ ; family-to-work conflict:  $R^2 = .13$ ,  $\Delta R^2 = .01$ ,  $p < .001$ ; and work-to-family conflict:  $R^2 = .37$ ,  $\Delta R^2 = .05$ ,  $p < .001$ ). All the variables exceeded the benchmark for a small effect size except family-to-work conflict (.01), whereas that of job satisfaction (.33) almost reached the threshold for large effect. The findings suggest that informal family support from three distinct organiza-

tional sources (i.e., supervisors, coworkers, and culture) is associated with a wide variety of positive outcomes beyond the formal policies or even key aspects of the job itself. In fact, after informal support was added to the equation, job autonomy ceased to be a significant predictor of stress, family and life satisfaction, positive spillover, negative job-to-home spillover, and turnover intentions.

Hypothesis 4 predicted that perceived control would mediate the relationship between formal and informal sources of organizational support, job autonomy, and the outcome variables. We tested for mediation using Baron and Kenny's (1986) mediated regression technique. With respect to each independent variable (family benefits, alternative scheduling, job autonomy, coworker support, supervisor support,

	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
—															
.12***	—														
.12***	.30*	(.71)													
.04*	.07*	.11***	—												
.02	.14*	.29***	.15***	(.91)											
.04	.12*	.27***	.15***	.54***	(.74)										
.05	.16*	.29***	.16***	.47***	.38***	(.71)									
-.14***	-.07*	-.18***	-.50***	-.25***	-.24***	-.27***	(.82)								
.07***	.12*	.34***	.19***	.53***	.53***	.42***	-.31***	(.71)							
.06**	.06*	.11***	.27***	.17***	.17***	.15***	-.45***	.21***	(.73)						
.11***	.09*	.17***	.35***	.26***	.27***	.23***	-.59***	.37***	.53***	—					
-.16***	-.03	-.17***	-.15***	-.27***	-.29***	-.26***	.25***	-.48***	-.14***	-.27***	—				
.01	.01	-.02	-.31***	-.10***	-.10***	-.17***	.48***	-.15***	-.32***	-.31***	.10***	(.82)			
.04	-.05*	-.14***	-.30***	-.33***	-.27***	-.32***	.45***	-.34***	-.23***	-.33***	.20***	.54***	(.87)		
.06**	.04	.12***	.07***	.22***	.23***	.14***	-.19***	.25***	.22***	.25***	-.10***	.00	-.11***	(.65)	

and supportive work–family culture) and each dependent variable (stress, turnover intentions, job satisfaction, life satisfaction, family satisfaction, positive spillover, work-to-family conflict, and family-to-work conflict), we conducted three regressions: (a) The mediator (perceived control) was regressed on the independent variables (e.g., work–family culture), (b) the dependent variables (e.g., turnover intentions) were regressed on the independent variables, and (c) the dependent variables (e.g., turnover intentions) were regressed on both the mediator variable (perceived control) and the independent variables (e.g., work–family culture). Mediation occurs when there is a significant relationship in Steps 1 and 2 and when there is a significant relationship between the mediator and outcome variable in Step 3. Finally,

the relationship between the independent variable and the outcome variable must be less in the third step than in the second. For our analysis, if the beta coefficient in Step 3 was less than in Step 2, we used the Sobel (1982) test to determine whether the drop in beta was statistically significant and therefore indicative of a significant mediating effect (see Preacher and Leonardelli, 2004, for an interactive calculation program). Results are shown in Table 6. Hypothesis 4 was largely supported. With the exception of the relationship between perceived control and family benefits, all of the Step 1 regressions were significant ( $p < .001$ ). With the exception of the relationship between alternative work schedule benefits and several outcome variables (turnover inten-

*(text continues on page 114)*

Table 2  
*Hierarchical Regression Results: Demographic Variables, Family and Job Demands, Formal Benefits and Policies, Job Autonomy, and Informal Supports as Predictors of Stress and Job Satisfaction*

Independent variable	Dependent variable									
	Stress and well-being					Job satisfaction				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	.14***	.12***	.11***	.11***	.13***	.07***	.09***	.09***	.11***	.06**
Age	-.12***	-.10***	-.10***	-.10***	-.10***	.12***	.10***	.10***	.09***	.10***
Marital	.02	.04	.05	.05	.04	-.05	-.03	-.03	-.05	-.03
Education	-.06**	-.06**	-.05	-.04	-.04	.01	.02	-.00	-.02	-.02
Family income	-.10***	-.14***	-.11***	-.10***	-.10***	.03	.06	.04	.00	.02
Demands: Family		.12***	.12***	.12***	.12***		.05	.05	.05	.04
Demands: Job pressure		.31***	.31***	.30***	.24***		-.23***	-.23***	-.20***	-.05**
Demands: Hours		-.02	-.02	-.00	-.00		.02	.02	.00	.01
Family benefits		-.09**	-.09**	-.09***	-.08***		.05	.05	.05	.03
Alternative schedules		-.02	-.02	.01	.03		.10***	.10***	.02	-.02
Job autonomy				-.10***	-.03				.31***	.13***
Support: Supervisor					-.09***					.26***
Support: Coworker					-.13***					.28***
Support: Culture					-.07***					.15***
$R^2$	.06	.17	.18	.19	.23	.03	.08	.10	.17	.43
$f^2$	.07	.21	.22	.23	.30	.03	.09	.10	.21	.74
Total $F$	32.18***	61.63***	51.96***	50.00***	51.31***	14.71***	26.39***	24.87***	45.72***	125.42***
$\Delta R^2$		.11	.01	.01	.04		.05	.01	.08	.25
$\Delta f^2$		.12	.01	.01	.05		.05	.01	.09	.33
$\Delta F$		103.78***	11.19***	25.14***	45.75***		44.50***	17.37***	230.28***	344.97***
$dfs$	5, 2386	8, 2384	10, 2382	11, 2381	14, 2378	5, 2386	8, 2384	10, 2382	11, 2381	14, 2378

Note. In each model, blocks of variables were entered in successive order.  
 \*\*\*  $p < .01$ . \*\*  $p < .001$ .

Table 3  
*Hierarchical Regression Results: Demographic Variables, Family and Job Demands, Formal Benefits and Policies, Job Autonomy, and Informal Supports as Predictors of Family Satisfaction and Life Satisfaction*

Independent variable	Dependent variable									
	Family satisfaction					Life satisfaction				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	-.04	-.05	-.05	-.04	-.05	-.01	.00	.00	.01	-.01
Age	.00	-.01	-.00	-.01	-.00	.06**	.05	.05	.05	.05**
Marital	-.26***	-.25***	-.26***	-.26***	-.25***	-.12***	-.14***	-.14***	-.15***	-.14***
Education	-.01*	-.02	-.03	-.03	-.03	.05	.03	.03	.02	.03
Family income	.09**	.10***	.10***	.09**	.09**	.08**	.11***	.09**	.07**	.08**
Demands: Family		-.10***	-.10***	-.10***	-.10***		-.09***	-.09***	-.09***	-.09***
Demands: Job pressure		-.11***	-.10***	-.10***	-.06		-.17***	-.17***	-.16***	-.09***
Demands: Hours		-.02	-.02	-.02	-.06		-.00	-.01	-.02	-.01
Family benefits		.00	.00	.00	-.00		.07**	.07**	.07**	.06**
Alternative schedules		.04	.02	.02	.01		.06**	.06**	.03	.01
Job autonomy				.07**	.03				.11***	.03
Support: Supervisor					.10**					.12***
Support: Coworker					.07**					.16***
Support: Culture					.02					.03
$R^2$	.10	.12	.12	.13	.15	.05	.08	.09	.10	.16
$f^2$	.11	.14	.14	.14	.17	.05	.09	.10	.11	.19
Total F	39.88***	31.49***	25.511***	24.14***	22.52***	23.63***	27.23***	24.07***	24.76***	32.75***
$\Delta R^2$		.02	.00	.00	.02		.04	.01	.01	.06
$\Delta f^2$		.02	.00	.00	.02		.04	.01	.01	.06
$\Delta F$		15.89***	1.52	9.27**	14.61***		31.70***	10.56***	28.88***	55.74***
dfs	5, 1840	8, 1837	10, 1835	11, 1834	14, 1831	5, 2383	8, 2380	10, 2378	11, 2377	14, 2374

Note. In each model, blocks of variables were entered in successive order.  
 \*\*\*  $p < .01$ . \*\*  $p < .001$ .

Table 4  
*Hierarchical Regression Results: Demographic Variables, Family and Job Demands, Formal Benefits and Policies, Job Autonomy, and Informal Supports as Predictors of Likelihood of Turnover and Positive Spillover*

Independent variable	Dependent variable									
	Positive spillover					Turnover intention				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	-.02	-.01	-.01	-.00	-.02	-.07***	-.09***	-.09***	-.10***	-.06**
Age	.02	.01	.01	.01	.01	-.19***	-.18***	-.18***	-.18***	-.18***
Marital	-.11***	-.10***	-.11***	-.11***	-.10***	.03	.03	.03	.04	.03
Education	.03	.03	.02	.02	.02	.02	.02	.03	.04	.04
Family income	-.04	-.03	-.05	-.06	-.05	-.20***	-.21***	-.18***	-.16***	-.17***
Demands: Family		.02	.02	.02	.02		-.00	-.01	-.01	-.00
Demands: Job pressure		-.08***	-.08***	-.07**	-.02		.13***	.10***	.12***	.04
Demands: Hours		.01	.00	-.00	-.00		-.03	-.01	-.01	-.01
Family benefits			.06**	.06	.05			-.10***	-.10***	-.09***
Alternative schedules			.01	-.01	-.03			-.01	.02	.04
Job autonomy				.09***	.01				-.11***	-.01
Support: Supervisor					.13***					-.12***
Support: Coworker					.14***					-.15***
Support: Culture					.03					-.11***
$R^2$	.01	.02	.02	.03	.08	.11	.12	.13	.14	.22
$f^2$	.01	.02	.02	.03	.08	.12	.14	.15	.16	.28
Total $F$	4.68***	4.99***	4.78***	5.93***	14.09***	57.58***	41.97***	36.32***	35.96***	47.15***
$\Delta R^2$		.01	.00	.01	.05		.02	.01	.01	.08
$\Delta f^2$		.01	.00	.01	.05		.02	.01	.01	.08
$\Delta F$		5.48**	3.87	17.16***	42.86***		14.33***	12.16***	28.23***	75.70***
$dfs$	5, 2383	8, 2380	10, 2378	11, 2377	14, 2374	5, 2379	8, 2376	10, 2374	11, 2373	14, 2370

Note. In each model, blocks of variables were entered in successive order.  
 \*\*\*  $p < .01$ . \*\*  $p < .001$ .

Table 5  
*Hierarchical Regression Results: Demographic Variables, Family and Job Demands, Formal Benefits and Policies, Job Autonomy, and Informal Supports as Predictors of Family-to-Work and Work-to-Family Conflict*

Independent variable	Dependent variable									
	Family-to-work conflict					Work-to-family conflict				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	.03	.02	.02	.02	.03	.04	.01	.01	.00	.03
Age	-.13***	-.12***	-.12***	-.12***	-.12***	-.14***	-.10***	-.10***	-.09***	-.10***
Marital	.03	.06	.06**	.06**	.06	-.03	-.04	-.04	-.03	-.04
Education	.09***	.09***	.09***	.09***	.10***	.07**	.06**	.07***	.08***	.08***
Family income	.03	-.01	-.01	-.01	-.00	.09**	-.02	-.01	.01	.00
Demands: Family		.16***	.16***	.16***	.16***		.09***	.09***	.09***	.09***
Demands: Job pressure		.27***	.27***	.27***	.25***		.48***	.48***	.47***	.40***
Demands: Hours		.01	.01	.01	.01		.14***	.14***	.15***	.15***
Family benefits		-.02	-.02	-.02	-.02		-.04	-.04	-.04	-.03
Alternative schedules		.00	.00	.00	.01		-.03	-.03	-.00	.01
Job autonomy				.01	.03				-.11***	-.03
Support: Supervisor					-.02					-.09***
Support: Coworker					-.06					-.12***
Support: Culture					-.07**					-.09***
$R^2$	.02	.12	.12	.12	.13	.03	.32	.32	.33	.37
$f^2$	.02	.14	.14	.14	.15	.03	.46	.47	.49	.59
Total $F$	11.76***	42.04***	33.70***	30.63***	25.70***	14.58***	138.00***	111.59***	106.26***	102.46***
$\Delta R^2$		.10	.00	.00	.01		.29	.00	.01	.05
$\Delta f^2$		.11	.00	.00	.01		.40	.00	.01	.05
$\Delta F$		90.30***	.44	.05	6.82***		333.52***	4.37	36.46***	59.66***
$dfs$	5, 2385	8, 2382	10, 2380	11, 2379	14, 2376	5, 2383	8, 2380	10, 2378	11, 2377	14, 2374

Note. In each model, blocks of variables were entered in successive order.  
 \*\*\*  $p < .01$ . \*\*  $p < .001$ .

Table 6  
*Perceived Control as Mediator of Relationships Between Forms of Support, Job Autonomy, Attitudes, and Well-Being*

Dependent variable	Independent variable			
	Coworker support, Sobel <i>t</i>	Supervisor support, Sobel <i>t</i>	WF culture, Sobel <i>t</i>	Job autonomy, Sobel <i>t</i>
Turnover intention	4.79***	4.46***	4.97***	4.44***
Stress	7.54***	7.13***	8.22**	5.53***
Job satisfaction	5.39***	5.08***	5.67***	4.78***
Life satisfaction	7.18***	6.79***	7.76***	5.40***
Family satisfaction	6.54***	6.15***	6.95***	5.11***
Positive spillover	1.98	2.19	2.48	2.74**
WF conflict	6.91***	6.50***	7.37***	5.30***
FW conflict	7.07***	6.64***	7.56***	5.35***

*Note.* We first regressed the proposed mediator, perceived control, on each independent variable. If that relationship was significant, we then regressed the (a) independent variable on the dependent variable and (b) both the independent variable and perceived control on the dependent variable and then calculated the Sobel *t*. The first step *t* was significant at  $p < .001$  for all independent variables, with the exception of family benefits ( $t = 2.23$ ). The Sobel *ts* for alternative schedules were not significant for any dependent variable (*ts* ranged from 1.31 to 1.40). WF = Work-to-family; FW = Family-to-work.

\*\*  $p < .01$ . \*\*\*  $p < .001$ .

tions, stress, family satisfaction, positive spillover, and both types of work-to-family conflict), and autonomy and family-to-work conflict, the Step 2 regressions were all significant at  $p < .001$ . With respect to Step 3 and the Sobel *t* test, and the independent variables of coworker support, supervisor support, culture, and autonomy, perceived control mediated the relationships ( $p < .001$ ) with turnover intentions, stress, job satisfaction, life satisfaction, family satisfaction, work-to-family conflict, and family-to-work conflict. In short, all mediation models were found to be statistically significant, with the exception of alternative scheduling as a predictor.

### Discussion

This study contributes to the work-family literature in four ways. First, by investigating three potential organizational responses that may influence employees' ability to balance work and family, we were able to shed light on the relative importance of each, in addition to the relatively neglected strategy of job design. Second, the study provided strong evidence for the important role that perceived control plays in helping us understand how formal and informal organizational support, as well as job design, are related to important employee and organizational outcomes. Third, given the possibility that positive outcomes may occur for employees who are partici-

pating in multiple roles, we investigated both negative and positive outcomes. Finally, we used a large, nationally representative sample to investigate our hypotheses, thus giving us greater confidence in the generalizability of our findings.

### Formal Organizational Support

Results from our study corroborate previous research that suggests that the formal availability of family-friendly benefits *alone* has modest relationships with outcomes of value to both individuals and organizations. The null findings are somewhat surprising given the importance attributed to the establishment of formal policies and programs that are intended to assist employees. However, O'Driscoll et al. (2003) and others (e.g., Batt & Valcour, 2003; Goff et al., 1990; Thompson et al., 2004) also have found no relationship between the availability of formal organizational policies and employee outcomes such as work-family conflict, absenteeism, and productivity. As the findings discussed in a later section suggest, it may be that only when a benefit or policy enhances an employee's sense of control will it have a positive effect on the outcomes. It may also be that other factors are more important for reducing work-family conflict or stress and increasing positive spillover, such as having supportive colleagues and bosses as well as the perception on the part of the

employees that they can use these policies without fearing negative job or career consequences. Eaton (2003), for example, found that flexibility policies were related to organizational commitment only when employees could freely use them without penalty.

### *Job Autonomy*

The findings of our study provide strong evidence for the importance of job autonomy in the lives of employees. We found that employees with higher levels of job autonomy, defined as discretion over how the job is to be performed, were more likely to be satisfied with their job, family, and life in general; experienced more positive spillover between job and home; were less likely to be thinking about looking for a new job; and were less likely to feel stressed or experience either form of work–family conflict. However, job autonomy was most highly related to the employee's attitude toward the job itself. Although researchers have long known about the positive effects of job autonomy on work-related attitudes (e.g., Hackman & Oldham, 1976), our findings reinforce recent research that suggests autonomy is also related to an employee's ability to manage the work–family interface (Clark, 2001; Grzywacz & Marks, 2000; Voydanoff, 2004). Indeed, despite Meissner's (1971) lament about the long arm of the job and its detrimental effects on workers' home lives, our findings support the notion that the nature of a job can be positively related to employees' well-being and ability to integrate their work and family lives. In addition, these findings support arguments that addressing work–family balance may require job redesign as well as work-life policies.

### *Informal Organizational Support*

Overall, informal organizational support was significantly related to all the outcome variables, a finding that parallels extensive research on the effects of perceived organizational support (Rhoades & Eisenberger, 2002). When the specific forms of informal support were examined, there were differences in variance explained. As predicted, supervisor support and coworker support were positively related to job, family, and life satisfaction as well as positive spillover between job and home, and negatively related to stress, intentions to quit, and work-to-family conflict. Most likely the positive affect generated by friendly, helpful coworkers and supervisors, as well as the instrumental support provided, spills over into other

domains and positively enhances employee attitudes and intentions. However, because the study design was cross-sectional, we cannot draw conclusions about causality. It is also possible, for example, that positive employee affect (e.g., employee satisfaction with life) makes coworkers and supervisors more likely to want to help or that there is a reciprocal relationship among the variables. Nevertheless, our findings corroborate and add to the list of important outcomes related to supervisor and coworker support. Of particular interest is the finding that supervisor and coworker support were related to positive spillover, providing support for the enhancement theory of multiple roles (Barnett & Hyde, 2001), which argues that participation in multiple roles can have an enhancing rather than detrimental effect on employees. Again, as with job autonomy, these three forms of workplace support were most strongly related to the employees' attitudes toward the job itself.

As the three sources of support were correlated, some caution is required in interpreting the individual betas. Supervisor and coworker support were related to work-to-family conflict but not family-to-work conflict, providing support for the claim that the two forms are distinct and may have different predictors (Anderson et al., 2002; Carlson & Kacmar, 2000; Eby et al., 2005). Previous research on supervisor support has found that employees with supportive supervisors or managers are less likely to experience work–family conflict (Batt & Valcour, 2003; Goff et al., 1990; Thomas & Ganster, 1995), but only when work-to-family conflict was measured. When Anderson et al. (2002) measured both forms of work–family conflict, they found that support was related to work-to-family conflict but not family-to-work conflict. Taken together, these findings support research that shows domain-specific effects to be stronger, at least in terms of understanding work–family conflict (Anderson et al., 2002; Aryee & Luk, 1996; Eby et al., 2005; Frone et al., 1997), and reinforces the importance of measuring both forms of conflict.

The third component of informal organizational support (i.e., supportiveness of an organization's work–family culture) was positively related to job satisfaction and negatively related to stress, intentions to quit, and both forms of work–family conflict. Indeed, for several of the outcome variables, availability of formal family-friendly benefits had no relationship with the outcome variables, whereas perceptions of a supportive work–family culture did. Both researchers and work-life practitioners have suggested that work–family programs are much less important than the organizational culture that sur-



rounds them, and that the culture influences who feels comfortable using the programs as well as employees' general attitudes toward the organization (Allen, 2001; Anderson et al., 2002; Thompson et al., 1999). While it might be tempting to argue that perhaps work-family benefits are unnecessary and that organizations instead should focus on creating a more supportive culture, our knowledge of what creates and maintains a supportive work-family culture is quite limited (Thompson, Andreassi, & Protas, 2005). Future research should begin focusing on what contributes to a supportive culture and what constrains an organization's ability to create a family-friendly environment for its employees.

When informal organizational support was entered into the model, job autonomy and family-friendly benefits, which had been significantly related to certain outcome variables (such as life satisfaction, turnover intention, and work-to-family conflict), ceased to be significant, suggesting that informal organizational support may act as a mediator. That is, it appears that job autonomy is related to an employee's perceptions that the organization is supportive, which in turn is related to perceptions of work-family conflict and well-being.

### *Perceived Control as a Mediator*

Research on work and family has been criticized for neglecting possible psychological processes that may explain how the two domains are linked (Eby et al., 2005). The present study demonstrated that employee perceptions of control may be an important link between organizational support, job design, and employee attitudes and well-being. Specifically, we found that perceived control mediated the relationships between informal organizational support (coworker and supervisor support, supportive work-family culture), job autonomy, and the outcomes of turnover intentions, stress, job, family, and life satisfaction, and work-to-family and family-to-work conflict. That is, informal organizational support and job autonomy are associated with employee perceptions of control, which in turn decrease negative consequences of managing multiple life roles and increase positive attitudes about one's job, family, and life. These findings highlight the importance of developing organizational interventions, including redesigning jobs, that enhance an employee's ability to control important aspects of their lives. Future research should focus on determining which interventions are most likely to increase employee control, as well as

which types of organizational support are necessary to maintain perceptions of control.

### *Limitations and Future Research*

A strength of this study was that the data were collected from a nationally representative sample, thus allowing us to be more confident in the generalizability of our findings. Nevertheless, as data were collected at one point in time via telephone interviews, self-report bias is potentially a problem. It would be helpful for future researchers to include the perceptions of spouses, significant others, or even coworkers and friends, to provide alternative views of the respondent's ability to manage the work-family interface. Relatedly, as individuals do not live in a vacuum, it is important to look for crossover effects (i.e., the extent to which one partner's psychological strain affects the other partner's level of stress or strain; Hammer et al., 1997; Westman & Etzion, in press) by asking questions of the spouse or other significant individuals in the employee's life. In addition, longitudinal research that follows the immediate and long-term effects of organizational interventions (e.g., job redesign) on the ability of employees to integrate work and family would be a major contribution to the field.

Another potential issue is that of unmeasured variables. Although this is always the case in organizational behavior research, it is instructive to consider what additional variables might be affecting relationships observed in the study. For example, it is possible that informal organizational support is tapping into a general level of managerial competence in the organization, and it is this competence that influences the outcomes. Future researchers might want to include this variable in their research designs.

Finally, some of the measures used in this study were not ideal. Our four-item measure of positive spillover, which included items assessing both work-to-family and family-to-work spillover as suggested by factor analysis, had a reliability of .65. This no doubt affected its relationship (or lack thereof) with some of the other variables. Fortunately, efforts are currently under way by Hammer and her colleagues (Hanson, Hammer, & Colton, 2004) as well as Carlson and her colleagues (Carlson, Kacmar, Wayne, & Grzywacz, in press) to develop a psychometrically rigorous measure of this important concept. In addition, one of our key variables, perceived control, was measured with a single item, which might have attenuated some of the relationships. However, the validity of single-item measures has been supported

in previous research (e.g., Nagy, 2002; Wanous & Hudy, 2001); for example, single items have been found to correlate highly with the larger scales from which they were derived. Although single items are likely to underestimate the true effect size, in our study perceived control was found to be moderately or strongly related to many of the outcome variables and was found to mediate many of the predicted relationships. Thus, although future researchers might want to use a more sophisticated measure, we are confident that our findings provide initial support for the important linking role of perceived control.

## References

- Adams, G. A., & Jex, S. M. (1999). Relationships between time management, control, work-family conflict, and strain. *Journal of Occupational Health Psychology, 4*, 72-77.
- Allen, T. (2001). Family-supportive work environments: The role of organizational perceptions. *Journal of Vocational Behavior, 58*, 414-435.
- Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organizational initiatives and informal workplace practices: Links to work-family conflict and job-related outcomes. *Journal of Management, 28*, 787-810.
- Aryee, S., & Luk, V. (1996). Work and nonwork influences on the career satisfaction of dual-earner couples. *Journal of Vocational Behavior, 49*, 38-52.
- Bailyn, L. (1993). *Breaking the mold: Women, men and time in the new corporate world*. New York: Free Press.
- Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An expansionist theory. *American Psychologist, 56*, 781-796.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Batt, R., & Valcour, P. M. (2003). Human resources practices as predictors of work-family outcomes and employee turnover. *Industrial Relations, 42*, 189-220.
- Behson, S. J. (2002). Coping with family-to-work conflict: The role of informal work accommodations to family. *Journal of Occupational Health Psychology, 7*, 324-341.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology, 88*, 1057-1067.
- Bond, J. T., Thompson, C., Galinsky, E., & Prottas, D. (2003). *Highlights of the 2002 National Study of the Changing Workforce*. New York: Families and Work Institute.
- Brett, J. M., & Stroh, L. K. (2003). Working 61 plus hours a week: Why do managers do it? *Journal of Applied Psychology, 88*, 67-78.
- Carlson, D. S., & Kacmar, K. M. (2000). Work-family conflict in the organization: Do life role values make a difference? *Journal of Management, 26*, 1031-1054.
- Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (in press). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior*.
- Casper, W. J., Martin, J. A., Buffardi, L. C., & Erdwins, C. J. (2002). Work-family conflict, perceived organizational support, and organizational commitment among employed mothers. *Journal of Occupational Health Psychology, 7*, 99-108.
- Clark, S. C. (2001). Work cultures and work/family balance. *Journal of Vocational Behavior, 58*, 348-365.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- Colton, C. L., Hammer, L. B., & Neal, M. B. (2002, April). *Informal organizational support and work and family outcomes*. Paper presented at the 17th Annual Conference of the Society for Industrial and Organizational Psychology, Toronto, Ontario, Canada.
- Eaton, S. (2003). If you can use them: Flexibility policies, organizational commitment, and perceived performance. *Industrial Relations, 42*, 145-167.
- Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980-2002). *Journal of Vocational Behavior, 66*, 124-197.
- Friedman, S., & Lobel, S. (2003). The happy workaholic: A role model for employees. *Academy of Management Executive, 17*, 87-98.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior, 50*, 145-167.
- Ganster, D. C., Fox, M. L., & Dwyer, D. J. (2001). Explaining employees' health care costs: A prospective examination of stressful job demands, personal control, and physiological reactivity. *Journal of Applied Psychology, 86*, 954-964.
- Goff, S. J., Mount, M. K., & Jamison, R. L. (1990). Employer supported child care, work-family, and absenteeism: A field study. *Personnel Psychology, 43*, 793-809.
- Greenberger, D. B., & Strasser, S. (1986). Development and application of a model of personal control in organizations. *Academy of Management Review, 11*, 164-177.
- Grover, S. L., & Crooker, K. J. (1995). Who appreciates family-responsive resource policies: The impact of family friendly policies. *Personnel Psychology, 48*, 271-298.
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology, 5*, 111-126.
- Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology, 7*, 560-568.
- Haar, J. M., & Spell, C. S. (2004). Programme knowledge and value of work-family practices and organizational commitment. *International Journal of Human Resource Management, 15*, 1040-1055.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice Hall.
- Hammer, L. B., Allen, E., & Grigsby, T. D. (1997). Work-family conflict in dual-earner couples: Within-individual

- and crossover effects of work and family. *Journal of Vocational Behavior*, 50, 185–203.
- Hanson, G. C., Hammer, L. B., & Colton, C. L. (2004, August). *Work-family positive spillover: Construct definition, measurement development, and validation*. Paper presented at the meeting of the Academy of Management, New Orleans, LA.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8 user's reference guide*. Chicago: Scientific Software.
- Judge, T. A., Boudreau, J. W., & Bretz, R. D. (1994). Job and life attitudes of male executives. *Journal of Applied Psychology*, 79, 767–782.
- Kirchmeyer, C. (1992). Perceptions of nonwork-to-work spillover: Challenging the common view of conflict-ridden domain relationships. *Basic and Applied Social Psychology*, 13, 231–249.
- Lambert, S. J. (2000). Added benefits: The link between work-life benefits and organizational citizenship behavior. *Academy of Management Journal*, 43, 801–815.
- Loscocco, K. A., & Spitze, G. (1990). Working conditions, social support, and the well-being of female and male factory workers. *Journal of Health and Social Behavior*, 31, 313–327.
- Marmot, M., Bosma, H., Hemingway, H., Brunner, E., & Stansfield, S. (1997). Contribution of job control and other risk factors to social variations in coronary heart disease incidence. *Lancet*, 350, 235–239.
- Meissner, M. (1971). The long arm of the job: A study of work and leisure. *Industrial Relations*, 10, 239–260.
- Nagy, M. S. (2002). Using a single-item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology*, 75, 77–86.
- Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.
- O'Driscoll, M., Poelmans, S., Spector, P. E., Kalliath, T., Allen, T. D., Cooper, C. L., & Sanchez, J. I. (2003). Family-responsive interventions, perceived organizational and supervisor support, work-family conflict, and psychological strain. *International Journal of Stress Management*, 10, 326–344.
- Parasuraman, S., & Alutto, J. A. (1984). Sources and outcomes of stress in organizational settings: Toward the development of a structural model. *Academy of Management Journal*, 27, 330–350.
- Parasuraman, S., Purohit, Y. S., Godshalk, V. M., & Beutell, N. J. (1996). Work and family variables, entrepreneurial career success and psychological well-being. *Journal of Vocational Behavior*, 48, 275–300.
- Perlow, L. A. (2001). Time to coordinate: Toward an understanding of work-time standards and norms in a multi-country study of software engineers. *Work & Occupations*, 28, 91–111.
- Preacher, K. J., & Leonardelli, G. J. (2004). *Calculation for the Sobel Test: An interactive calculation tool for mediation tests* [Online and interactive computer program]. Retrieved January 19, 2004, from <http://www.unc.edu/~preacher/sobel/sobel.htm>
- Quinn, R. P., & Staines, G. L. (1979). *The 1977 quality of employment survey*. Ann Arbor, MI: Institute for Social Research.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698–714.
- Rothausen, T. J. (1999). "Family" in organizational research: A review and comparison of definitions and measures. *Journal of Organizational Behavior*, 20, 817–836.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80, 1–28.
- Shinn, M., Wong, N., Simko, P., & Ortiz-Torres, B. (1989). Promoting the health and well-being of working parents: Individual, social, and organizational strategies. *American Journal of Community Psychology*, 17, 31–56.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). San Francisco: Jossey-Bass.
- Survey: Forever young. (2004, March 27). *The Economist*, pp. S3–S4.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6–15.
- Thompson, C. A., Andreassi, J., & Protas, D. J. (2005). Work-family culture: Key to reducing workforce-workplace mismatch? In S. M. Bianchi, L. M. Casper, & R. Berkowitz King (Eds.), *Workforce-workplace mismatch? Work, family, health and well-being* (pp. 117–132). Mahwah, NJ: Erlbaum.
- Thompson, C. A., Beauvais, L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *Journal of Vocational Behavior*, 54, 392–415.
- Thompson, C. A., Jahn, E., Kopelman, R., & Protas, D. (2004). The impact of perceived organizational and supervisory family support on affective commitment: A longitudinal and multi-level analysis. *Journal of Managerial Issues*, 16, 545–565.
- Voydanoff, P. (2004). The effects of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, 66, 398–412.
- Wanous, J. P., & Hudy, M. J. (2001). Single-item reliability: A replication and extension. *Organizational Research Methods*, 4, 361–375.
- Westman, M., & Etzion, D. (in press). The crossover of work-family conflict from one spouse to the other. *Journal of Applied Social Psychology*.
- Whooley, M. A., Avins, A. L., Miranda, J., & Browner, W. S. (1997). Case finding instruments for depression: Two questions are as good as many. *Journal of General Internal Medicine*, 12, 439–445.

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