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THE EFFECTS OF A FAMILY-SUPPORTIVE WORK ENVIRONMENT ON WORK-TO-FAMILY CONFLICT, FAMILY-TO-WORK CONFLICT, AND EMOTIONAL EXHAUSTION – DOES INCOME LEVEL MATTER?

By

Cynthia Ozeki

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ABSTRACT

THE EFFECTS OF A FAMILY-SUPPORTIVE WORK ENVIRONMENT ON WORK-TO-FAMILY CONFLICT, FAMILY-TO-WORK CONFLICT, AND EMOTIONAL EXHAUSTION – DOES INCOME LEVEL MATTER?

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Drawing on the conservation of resources model, this study investigates the impact of a family-supportive work environment on work-to-family conflict, family-to-work conflict, and emotional exhaustion in the context of other important personal and work-related demands and resources in a national sample of 2,877 employees. The study finds that working in organizations with environments that are more supportive is associated with less work-to-family and family-to-work conflict, as well as lower levels of emotional exhaustion. Part of the impact of a supportive work environment on emotional exhaustion was mediated by conflict between work and family. The relationship between the outcomes and working in a supportive environment appeared particularly strong for workers from lower-income households, who have fewer alternative resources to draw on. Access to more dependent care benefits was associated most closely with less work-to-family conflict among lower income workers. Supportive supervisors and cultural norms that don't penalize workers for putting family first were related to lower levels of family-to-work conflict, with the effects being stronger for lower income workers than those with more financial power. For all workers, informal support was more closely associated with reduced conflict and exhaustion than the availability of formal work/life benefits.

This work is dedicated to my family.

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I would like to acknowledge the invaluable support and advice of my dissertation committee chair, Ellen Ernst Kossek, as well as the wise assistance I received from Richard Block, my coursework committee chair, and from the other members of my dissertation committee, Ann Marie Ryan, Clifford Broman, and Peter Berg. Their contributions helped to improve this paper immensely.

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CHAPTER 1: INTRODUCTION

Research Needed on the Links Between Work, Family, and Burnout

As we enter the 21st century, the faces that make up the American workforce are strikingly different from half a century ago. A dramatic shift over the past few decades has brought more women, including mothers of young children, into all types of jobs, while husbands and fathers have become more involved in caring for family members and doing household work. Today households headed by single working parents are a common phenomenon, nearly half of all workers are women, and the modal American family has two working parents (Barnett and Hyde, 2001; Bond, Galinsky and Swanberg, 1998). With more people combining heavy family responsibilities with work, the boundaries between work and family have become more permeable. Understanding the connections between work and home is important for employers, individuals, researchers, and policy makers. Changing workforce demographics have led to an increased interest in the relationship between people's work and private lives, how this may affect their jobs and families, and what can be done promote positive experiences.

Gaps in Research on the Effects of Organizational Work/Family Policies

While changes in workforce demographics have inspired a stream of research on work and family, key gaps in our knowledge remain. Particularly important to understand are the effects of organizational efforts to support workers balancing demands on the job and at home. Yet quality research on the effects of human resource (HR) policies that aim to help workers manage their lives inside and outside the workplace is limited both in availability and scope. Recent meta-analyses on the impacts of work/family policies (Kossek and Ozeki, 1998) and flextime and compressed workweeks

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(Baltes *et al.*, 1999) each located fewer than 30 published journal articles that reported statistical estimates of the effects of these policies on common work outcomes, such as job satisfaction and absences. The studies that have looked at such indications of organizational support have linked them to individual job outcomes like greater extra-role effort by employees (Lambert, 2000), organizational commitment (Grover and Crooker, 1995), and loyalty (Roehling *et al.*, 2001), as well as organizational performance (Perry-Smith and Blum, 2000). However, only a handful of studies involving unique samples (Allen, 2001; Thompson, Beauvais and Lyness, 1999; Thomas and Ganster, 1995; Judge, Boudreau, and Bretz, 1994; Goff, Mount, and Jamison, 1990), have actually examined the degree to which organizational efforts to be family-supportive actually reduce the amount of conflict between work and family experienced by employees (Kossek and Ozeki, 1998). Also important to understand is how the work/family interface – including organizational supports – is related to burnout (Maslach and Jackson, 1985), and this is another area where limited work has been done. Recent meta-analytic reviews have reported evidence of strong links from conflict between work and family to burnout, but only a few studies that examined such relationships, all with unique samples which make it difficult to generalize their results (Kossek and Ozeki, 1998; Allen *et al.*, 2000).

Conflict Between Work and Family An Important Outcome

While researchers interested in human resource policies and practices have tended to focus on familiar employment-related outcomes like organizational commitment and performance, a large stream of research on conflict between work and family has shown the importance of this construct, both as an unpleasant outcome for individuals and as precursor of outcomes unfavorable for employers. Conflict between work and family has

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been linked to lower satisfaction with marriage, family and life in general (Allen *et al.*, 2000), psychological strain (Grandey and Cropanzano, 1999; Burke, 1988), poorer physical health (Googins and Burden, 1987; Frone, Russell and Barnes, 1996), and depression (Frone, Russell, and Cooper, 1992). On the employment side, studies have also found that conflicts associated with combining work and family responsibilities are related to reduced job satisfaction (Kossek and Ozeki, 1998), lower organizational commitment (Good, Sisler and Gentry, 1988; Lyness and Thompson, 1997), poorer job performance (Frone, Yardley, and Markel, 1997), and greater interest in quitting (Good *et al.*, 1988; Ayree, 1992). While considerable research has been done in this area, studies have, in general, focused on the relationships between gender, job- and family-related stressors and negative spillover or conflict, and on the relationship of conflict to outcomes such as those described above. The effects of specific work/life policies have not generally been included (Kossek and Ozeki, 1998).

Burnout a Critical Outcome for Study

As mentioned previously, burnout is another negative outcome that research indicates is linked to conflict between work and family, and it is an outcome that is important both for employees and employers. The most critical part of the burnout syndrome, validated in a large stream of previous research, is a work-related state of emotional exhaustion (Cordes and Dougherty, 1993; Lee and Ashforth, 1993; 1996; Leiter and Durup, 1996). Emotional exhaustion refers to a sense of feeling completely drained, burned out, tired when you think about facing another day – even first thing in the morning. Such deep-seated fatigue obviously has negative implications for workers and the organizations who employ them. Research has shown that workers with higher

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levels of emotional exhaustion are less satisfied with their jobs, are not as committed to their organizations, have greater intention to quit and are more likely to actually leave their organizations (Lee and Ashforth, 1996; Wright and Cropanzano, 1998). Burnout has also been linked to negative outcomes on the home front, including reduced marital satisfaction (Leiter and Durup, 1996).

Current research on burnout indicates that this syndrome may affect more workers than originally thought. Until quite recently, burnout was conceptualized as affecting mainly workers whose jobs involved intense interaction with others, particularly those in female-dominated human service professions like nursing, teaching, and social services. The concept was gradually expanded to cover other occupations that required extensive use of "people skills", like sales and management. However, recent research indicates that workers in a wide range of professions – even those that involve little contact with people – may also suffer from burnout (Demerouti *et al.*, 2001). If workers in most or all types of jobs are susceptible to burnout, understanding what causes emotional exhaustion and what helps to alleviate it is extremely important. To date, with few exceptions, the majority of burnout research has focused on job-related stressors and buffers and on how the syndrome unfolds, relying on homogenous samples of service workers.

The handful of studies that have examined burnout in the context of work and family responsibilities have found strong correlations with conflict between work and family, particularly for women (e.g. Greenglass and Burke, 1989; Leiter and Durup, 1996; Bacharach *et al.*, 1991; Etzion, 1988; Netemeyer *et al.*, 1996). These relationships imply that successful efforts to reduce conflict between work and family have the potential to reduce emotional exhaustion as well. Organizational efforts to create a

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family-supportive work environment represent a key resource that may help decrease both conflict and burnout.

Family-Supportive Environments: Formal and Informal Elements

Recognizing that today's workers are increasing challenged by a complex combination of often-conflicting responsibilities at work and at home, employers have tried to respond to the needs of their changing workforce by introducing a wide range of work/life policies and initiatives that can contribute to the creation of a family-supportive work environment.

How can employers support workers in their efforts to combine responsibilities on the job and at home? Formal benefits like time off to care for new babies and sick family members, help locating and paying for dependent care assistance, flextime and telecommuting programs represent important signals that employers recognize the challenges involved in combining work and family and are making efforts to help workers meet them.

Although research on the effects of such indicators of workplace support is limited, their use is fairly widespread. During the heady economic boom of the 1990s, companies competing for quality personnel developed programs introducing telecommuting and flexible hours, and deliberately worked to create a family-friendly culture (Feldman and Gainey, 1997; Osterman 1995), something many firms viewed as a potential source of competitive advantage (Allen, 2000). In a recent survey of 1,057 organizations with 100 or more employees, 68 percent reported offering some flexibility in starting and quitting times and 33 percent said they allowed employees to work at home or off-site on a regular basis. While only 9 percent provided child care at or near

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the work site, nearly half offered dependent care assistance plans that help employees pay for child care with pretax dollars and 36 percent provided access to information on local child care providers. Twenty-three percent said they provided similar referrals for employees seeking assistance with eldercare issues (Galinsky and Bond, 1998).

In addition to formal programs and policies, research indicates that the attitudes of other people in the workplace can make an important contribution to the creation of a family-supportive work environment. Particularly important are how supportive supervisors are when workers attempt to resolve work/family conflicts (Thompson *et al.*, 1999; Allen, 2000) and cultural norms that don't penalize workers' careers for utilizing work/family benefits or putting family needs first when they are important (Thompson *et al.*, 1999).

The effects of supervisor support with work issues on conflict between work and family and on burnout have been studied fairly extensively; however, far less research has been done on the effects of supervisor support with work/family issues. The effects of family-supportive cultural norms, and well as formal policies and programs like those described above, represent important areas where research is needed. Critical gaps in the literature include information on whether and how a supportive organizational environment affects conflict that emanates from family to affect work and emotional exhaustion. In addition, our knowledge of the degree to which a supportive environment can alleviate conflict that emanates from work to affect family is sketchy at best.

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Purpose of the Study

The main purpose of this study is to examine the effects of a family-supportive work environment on emotional exhaustion and conflict between work and family in the context of other relevant demands and resources in both domains, work and home. Previous research has helped to identify these constructs as important outcomes likely to be influenced by such a organizational support, and work in all three areas – work-family benefits, burnout, and work-family conflict – provides rich theoretical and empirical material to draw on. However, research that draws on all three perspectives is limited, and a major goal of this paper is to link the thinking and findings of these literatures. By examining the effects of a supportive environment relative to other work- and family-related demands and resources, the study should contribute to a clearer conceptualization of the work/family interface. It should help to identify what poses the strongest challenges for US workers in combining work and family today, and what appears to be helpful.

The study will examine these issues in a large sample of workers from all walks of life and all areas of the US, in contrast to the vast majority of research on work and family and burnout as well, which has generally relied on small convenience samples comprised of workers in the same field and/or organization. This should enable the study to make another contribution, by examining how much previous findings can be generalized to the population of US working adults.

Main Research Questions

The study will attempt to shed light on these questions: How do work and family demands and resources combine to create conflict between work and family and

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emotional exhaustion? In particular, how are these outcomes affected by organizational efforts to create a more family-supportive environment? Does having such an environment impact emotional exhaustion through its effect on conflict between work and family? Do more positive outcomes result from working in a family-supportive environment for individuals with lower levels of personal resources, such as those from lower-income households and single parents?

Contributions

The study will contribute to the literature by being the first to look at how a family-friendly organizational environment may affect burnout, the first to investigate how it affects family-to-work conflict in a diverse sample, and one of the most broad examining its relationship to work-to-family conflict. It will is also the first to consider how economic status (an important resource) may moderate these relationships. The study will maximize variance in all measures by utilizing a sample with workers from all walks of life, making it easier to see relations and generalize results. By including both personal and work-related resources and demands in addition to measures of how family-supportive the work environment is, the study should help provide a more complete picture of the interface between work and family and how it may be related to emotional exhaustion.

Underlying Assumptions

A number of important assumptions underlie the design of the study. First, it is assumed that, consistent with recent research and reconceptualizations, emotional exhaustion is a construct that has applicability for workers in all occupations. While most work in this area has previously focused on workers in jobs that involved

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considerable human interaction, the few studies that do involve broader samples find evidence of burnout, particularly emotional exhaustion, in all types of workers (e.g. Demerouti *et al.*, 2001; Ayree, 1993; Schutte *et al.*, 1999). The design of the study also makes it possible to evaluate the possibility that this assumption does not hold. Industry and occupation are entered as control variables; large effect sizes for those variables would be a strong indicator that there are, indeed, important differences associated with them.

A second assumption is that emotional exhaustion, conflict from work to family, and conflict from family to work represent three distinct constructs that can be meaningfully distinguished from one another. The difference between work-to-family and family-to-work conflict will be discussed in greater detail in the following chapter; here we note that both are outcomes of interest in this study, based on the assumption that the conflict between work and family can be differentiated by the direction of effects. Again, previous research provides strong indications that these represent separate and important ideas. In studies that include combinations of them (e.g. Leiter and Durup, 1996; Netemeyer *et al.*, 1996, Frone *et al.*, 1992), correlations between them are moderately strong, but generally not above a 6.0, which might indicate that they might be meaningfully integrated. The design of the study also allows for examination of this assumption; factor analyses and intercorrelations are examined to verify whether these are separate constructs.

A third assumption is that research questions described above can be meaningfully examined in a cross-sectional analysis. Cross-sectional research cannot prove the existence of effects that unfold over time. It can, however, reveal whether

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constructs and variables are related as would be predicted, thus shedding light on whether causal effects may exist without necessarily proving that they do. The question becomes, then, whether such cross-sectional research is useful. Like much of the work in this area and the social sciences in general, this study adopts the perspective that it is, provided that the limitations of cross-sectional research are considered when drawing conclusions.

Organization of the Dissertation

With these assumptions in mind, the organization of this dissertation will proceed as follows. The major constructs and theories underlying the study as well as research related to them will be explained in greater detail in Chapter 2, which directly follows this section. The model this research draws on will be described at the beginning of Chapter 3, followed by a description of the hypotheses to be tested and a review of literature relevant to them. The research methods used, including a discussion of the sample, scales, and analytical approach, will be covered in Chapter 4. The results of the study, including tables summarizing the findings, are included in Chapter 5. Chapter 6 concludes the dissertation with a discussion of major findings, and their implications for research and practice. Information on study limitations, suggestions for future research, and main contributions of the study conclude this chapter.

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CHAPTER 2: THEORETICAL UNDERPINNINGS AND PREVIOUS RESEARCH

The constructs emphasized in this study and the theories that have influenced research about them are described in this chapter, which begins with definitions of the outcome variables and a discussion of the elements of a family-supportive work environment. Previous research in each area is briefly summarized, followed by a discussion of the four main theories that inform the current study.

The main independent variable of interest in this study, a family-supportive work environment, is a multi-faceted construct. Given the high level of resources that organizations have committed to becoming more "family-friendly," it is important to consider the ways that this can be accomplished and how effective they are. The outcomes chosen for study share important characteristics: they represent individual-level responses to stresses. However, as will be seen from the discussion to follow, they differ from each other in key respects.

Construct Definition: A Family-Supportive Work Environment

As noted in the introduction, changing demographics have lead US employers to increasingly adopt formal policies and programs aimed at helping employees balance their work and nonwork responsibilities (Galinsky and Bond, 1998). Equally important, according to recent research, are efforts to bolster informal support for struggling workers among managers (Allen, 2000) and to create a culture that does not penalize workers' careers when they make decisions that show a high value placed on family (Thompson *et al.*, 1997). Workers consider the existence of formal policies and benefits, combined

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with assessments of informal support, and use them to develop overall perceptions of how family-supportive their organizations are (Allen, 2000).

For the purpose of this study, a family-supportive organizational environment is defined as one where workers are supported in their efforts to balance work and family demands. Five indicators of support identified as important in previous research are considered as contributing to such an environment. They are: flexibility in work timing and location, the extensiveness of dependent care benefits provided, supervisor support with family issues, and cultural norms that do not penalize workers' careers for making decisions that reflect a strong emphasis on family.

Previous Research on Family-Supportive Organizational Environments

While some recent work in the area of organizational work/family supports has been enriched by drawing heavily on the work/family role conflict literature, most studies have tended to look at whether the existence or use of such such benefits is associated with positive work-related outcomes, such as greater job satisfaction (Rothausen, 1994; Allen, 2001) and increased loyalty or commitment (Roehling *et al.*, 2001; Allen, 2001; Thompson *et al.*, 1999; Grover and Crooker, 1995). In some studies (e.g. Greenberger *et al.*, 1989) the sample is limited to working parents. In other cases, researchers have used marital status, gender or the presence of children as a type of proxy for work/family conflict and have looked to see whether more positive effects are found for people more likely to be dealing with work/family issues (e.g. Grover and Crooker, 1995).

The notion that providing resources for employees struggling with demands from both work and home leads to positive work attitudes has received considerable support from these studies. However, even non-parents and other workers who appear to have

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less need for a more family-friendly work environment have more positive attitudes in organizations that offer such support. Flexibility, in particular, seems to be valued by employees of all types. Dependent care benefits have also been found to have positive effects on work attitudes among employees unlikely to use them in some cases as well (e.g. Grover and Crooker, 1995, Roehling *et al.*, 2001). One explanation: researchers have proposed that a family-friendly environment is a powerful symbol which indicates to workers that the organization cares about them and their concerns, and that they will be fairly treated (Grover and Crooker, 1995; Allen, 2001).

Whatever the reasons, research on how a supportive work environment affects work attitudes has shown some significant positive relationships, a particularly important outcome for employers. However, just as important to understand is how the organization's environment may be associated with the level of stress actually experienced by workers. While some work has addressed the effects of a supportive environment on work-to-family conflict, little is known about how it may be related to family-to-work conflict or emotional exhaustion. This study will contribute to understanding of the effects of a family-supportive workplace environment by looking at how indicators of support are related to both work-to-family and family-to-work conflict as well as emotional exhaustion. The large national sample to be used means results should be quite generalizeable. To a greater extent than is common in most previous research in this area, personal and job-related factors that past studies indicate may have an impact will be included in the model to improve the accuracy of estimates about the effects of workplace support.

Defining Work-to-Family and Family-to-Work Conflict

According to the most common definition, work-family conflict occurs when the demands of work and family roles are incompatible in some respect so that participation in one is more difficult because of participation in the other (Greenhaus and Beutell, 1985). For example, in her role as a manager, a woman may be expected to attend a meeting with an important client, but at the same time, in her role as a parent, she may be expected to care for a sick child.

Considerable research supports the notion that conflict between work and family has two important dimensions, defined by the direction of the effects (Netemeyer *et al.*, 1996; Carlson *et al.*, 2000). For example, our manager may have to put in many hours of overtime one week, reducing the amount of time and energy she has to help her son with a science project. Because the effects emanate from work and impact family, this is termed work-to-family conflict. If our manager were to miss an important deadline for reporting results because she was helping an elderly parent obtain emergency medical treatment, the effects would emanate from family to impact work; this would be an example of family-to-work conflict. For purposes of simplicity, where both types of conflict are discussed, the term work/family conflict will be used throughout the remained of this paper.

Research on Work/Family Conflict

In studies that have distinguished between ways that work has a negative effect upon family and ways that family has a negative effect upon work (e.g. Gutek, Searle, and Klepa, 1991; Netemeyer *et al.*, 1996; Wiley, 1987; Leiter and Durup, 1996; and Adams *et al.*, 1996), workers have generally reported more work-to-family conflict than

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family-to-work conflict, perhaps because when choices must be made people are careful to ensure that their personal lives don't negatively affect their performance at a job that helps to support their lifestyles.

Since the 1970s, when the increasing number of women entering the workforce spurred interest in the intersection of work and family (Barnett and Hyde, 2001), considerable research has been done on the consequences and antecedents of both types of work/family conflict.

Consequences of Conflict

Work-to-family conflict has, by definition, strong implications for family functioning, and it has been associated with reduced family and marital satisfaction, depression, and even alcohol abuse (Allen *et al.*, 2000). Extensive family-to-work conflict is likely to have a negative impact on an employee's career, and, through its effect on individual performance, can be harmful to organizations. Both types of conflict have been associated with negative work outcomes in previous research, including lower job satisfaction (Kossek and Ozeki, 1998), more interest in quitting (Netemeyer *et al.*, 1996), decreased commitment (Wiley, 1987; Netemeyer *et al.*, 1996), greater burnout (Leiter and Durup, 1996; Netemeyer *et al.*, 1996), and poorer performance (Netemeyer *et al.*, 1996). A recent meta-analytic review indicates that work-to-family conflict may be somewhat more closely associated with these outcomes than family-to-work conflict, except for performance, which suffered more when family demands spilled over to affect work (Kossek and Ozeki, 1999).

Antecedents of Conflict

Although they have frequently been included in research designs as controls rather than major emphases of research, demographic and family characteristics have been shown to affect the experience of work/family conflict. Much of the research in this area has relied on homogenous samples of workers, for example, female health care workers (Bacharach *et al.*, 1991; Garland, Oyabu and Gipson), and has limited participants to those with children and or spouses (e.g. Leiter and Durup, 1996; Ayree, 1993). Despite a tendency for variance to be reduced through such sample selection techniques, there is support for the practical notion that people who tend to have greater family demands – women, partners in dual-career relationships, and single parents – are more susceptible to conflict between work and family (e.g. Kossek, 1990; Pleck, Staines and Lang, 1980). Other influences from the family side include instrumental and social support from family members, as well as strain within family roles, such as ambiguity or conflict (Frone, Yardley, and Markel, 1997; Parasuraman *et al.*, 1992). The results of studies in these areas are not completely consistent, implying that research that increases our understanding would be useful.

One finding does seem to be consistent: family-related variables appear to have the strongest impact on family-to-work conflict, while work-related influences are more closely associated with work-to-family conflict (Frone, Russell and Cooper, 1992; Frone Yardley and Markel, 1997; Ayree, Fields and Luk, 1999).

Among the most important job-related influences is how demanding one's work is, whether measured in terms of hours worked (Frone, Yardley and Markel, 1997), a feeling of being overloaded (Greenhaus *et al.*, 1989), or how hard and fast employees

must work (Pleck, Staines and Lang, 1980). Another job characteristic that has been found to affect work/family conflict is type of work schedule (Pleck, Staines, and Lang, 1980). Among the resources identified in previous research are autonomy, tenure (Greenhaus *et al.*, 1989), and social support from supervisors and co-workers (Parasuraman *et al.*, 1992).

Research on Family-Supportive Work Environments and Conflict

A relatively small body of work deals with the influence of an important work-related resource, organizational efforts to create a family-supportive environment. Only a handful of studies have looked at the effects of family-related policies and benefits on work-to-family conflict, and family-to-work conflict has received even less consideration in this literature, which will be reviewed more extensively in Chapter 3. In evaluating the effects of organizational efforts to create a supportive work environment for those combining work and family roles, it is important to consider both work-to-family and family-to-work conflict. Presumably, companies introducing flextime, building on-site daycare centers, or offering workers information on where to turn for eldercare assistance are seeking to reduce both negative effects on families from work and family intrusions that may limit a worker's effectiveness. This study will contribute to research in this area by examining the effects of various personal and organizational factors on both work-to-family and family-to work conflict.

Previous research on the effects of organizational efforts to support workers balancing job and family demands contains some contradictory findings, but overall provides grounds for cautious optimism. It is important to note that only a few studies published in peer-reviewed academic journals have looked at how organizational efforts

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to create a family-supportive environment are related to work/family conflict, and all but one of these (Galinsky, Bond, and Friedman, 1996) have used unique samples that make it difficult to generalize (Allen, 2001, workers in communications firms and members of a women's business association; Thompson, Beauvais and Lyness, 1999, alumni of graduate programs in business and labor and industrial relations; Thomas and Ganster, 1995, mainly female health care professionals; Ray and Miller, 1994, hospital workers; Judge, Boudreau, and Bretz, 1994, male executives; Goff, Mount, and Jamison, 1990, employees at a communications firm; Kossek and Nichol, 1992 employees of a midwestern hospital; Greenberger *et al.*, 1989 parents of preschoolers). Aside from its inclusion in the Judge *et al.* (1994) study of executives, family-to-work conflict has been virtually ignored or mixed in with work-to-family conflict to create a single bi-directional work/family conflict measure (e.g. Goff *et al.*, 1990; Galinsky, Bond and Friedman, 1996). Support from supervisors and coworkers and a culture that allows workers to put family first have been fairly consistently associated with lower work/family conflict, but not in all cases (see Ray and Miller, 1994). Evidence for flexibility and dependent care benefits is mixed (Kossek and Ozeki, 1999), as will be illustrated in the literature review section.

Study findings, then, are not consistent, perhaps influenced by the reliance on homogenous samples. Even in cases where large, representative samples have been used (e.g. Bond, Galinsky and Swanberg, 1998; Galinsky, Bond, and Friedman, 1996) potential moderators have not been examined. This study will contribute to our understanding by examining the effects of a supportive work environment on both types of conflict in a large, highly diverse national sample. It will also be the first to look at

whether people with fewer personal resources experience a greater reduction in work-family conflict from working in a family-supportive environment than workers who may have a lighter load at home or more options for help, thus filling critical gaps in the literature.

Burnout: Defining the Construct

Strongly influenced by work by Maslach and colleagues (e.g. Maslach and Jackson, 1981a,b; Maslach, 1982) burnout has generally been viewed as a syndrome that has three dimensions: *emotional exhaustion*, a state in which one feels drained of energy and enthusiasm for work; *depersonalization*, a response to excessive demands in which workers take a cynical view of the people and they work with and the work they do; and diminished *personal accomplishment*, a feeling that one is not making a meaningful contribution through work.

Considerable work in this area has focused on how the dimensions related to each other, as well as to relevant sources of stress and support. Studies have endorsed conceptions of burnout as a syndrome involving from two (e.g. Demerouti *et al.*, 2001) to eight (Golembiewski *et al.*, 1986) phases or dimensions. Several models have been proposed regarding the order in which the dimensions occur, but there does appear to be considerable consensus on one point: emotional exhaustion plays a key role in the process (Lee and Ashforth, 1993; Cordes and Dougherty, 1993; Wright and Cropanzano, 1998). The focus of this research will therefore be on emotional exhaustion, or a sense of overwhelming fatigue associated with work.

Previous Research on Burnout

In earlier research, this syndrome was considered to apply only to workers whose jobs involved extensive interactions with people, such as teachers, nurses, and social workers. However, recent studies have found that the concept of burnout and its dimensions are applicable to a broad range of jobs, even those which involve little contact with people (Demerouti *et al.*, 2001).

Consequences of Burnout

Research has shown that burnout has negative effects for both employees and employers. A recent meta-analysis found that burned out workers are less satisfied with their families, their marriages, and their lives. They have lower levels of job satisfaction, and organizational commitment, and are more likely to both consider quitting and to actually do so (Lee and Ashforth, 1996). Given these negative consequences, it is important to develop a complete understanding of what causes burnout and how it can be prevented.

Antecedents of Emotional Exhaustion

Previous research has identified a number of resources and demands associated with emotional exhaustion, mainly in the work domain. A recent meta-analysis of the burnout literature found that key resources linked to lower work-related burnout include social support and autonomy. The strongest relationships, however, appear to be for demands, particularly workload. Also closely related were conflict and ambiguity within the work domain, although there are concerns that similarity between items commonly used to measure emotional exhaustion, within-role conflict, and ambiguity may be worded in ways that lead to overestimates the strength of their relationships (Lee and

Ashforth, 1996). As noted above, the same work-related resources and demands have also been linked to conflict between work and family roles (Frone, Russell and Cooper, 1992).

Work/family conflict represents another factor that may contribute to increased emotional exhaustion. The handful of studies that have examined burnout in the context of work and family responsibilities have found strong relationships with work-to-family conflict, particularly for women (e.g. Greenglass and Burke, 1989 (but no relationship found for men); Leiter and Durup, 1996; Bacharach *et al.*, 1991; Etzion, 1988; Netemeyer *et al.*, 1996). Although the relationship is weaker, family-to-work conflict also appears to be correlated with emotional exhaustion (Netemeyer *et al.*, 1996; Leiter and Durup, 1996).

Research on Family-Supportive Work Environments and Burnout

Given the links that have been found between work/family conflict and burnout, it appears important to examine whether or not efforts to support workers in balancing job and home responsibilities also have important implications for burnout. If working in a family-supportive environment is associated with less burnout, organizations would have another important reason to work towards creating one. However, research in this area is limited.

Previous studies indicate that supervisors who are supportive when work problems arise contribute to lower levels of emotional exhaustion (Lee and Ashforth, 1996), and similar results have been found for supervisor support with family-related issues (e.g. Leiter and Durup, 1996; Ray and Miller, 1994). However, only a single study was located that looked at the relationship between schedule flexibility and burnout. In a

study of dual-career parents of preschoolers in Singapore, Ayree (1993) found that greater difficulty in adjusting work days and times was associated with more emotional exhaustion among women, but not men. He posited that the differences reflected Singaporean expectations regarding the greater involvement of women in their childrens' education, underscoring the need for further study in a contrasting sample of workers. No studies were located that dealt with the relationship between dependent care assistance, or organizational cultural norms and any of the burnout dimensions.

This study will extend the limited research that has looked at the effects of family responsibilities on burnout by exploring whether organizational efforts to provide a family-supportive environment are associated with lower levels of emotional exhaustion, particularly for workers who have high personal demands or who are less able to afford alternate support. Another contribution will be looking at the degree to which a supportive environment affects emotional exhaustion through its impact on work/family conflict, and the degree to which it reduces it directly or in other ways.

Major Theories Underlying the Study

Three theoretical frameworks help to identify the ways in which family-supportive work environments, work-to-family conflict, family-to-work conflict, and emotional exhaustion are linked. While theories of social exchange and symbolism have exerted the greatest influence on previous research related to family-related benefits, incorporating the insights of a major influence underlying work/family research, role theory, can enrich and extend thinking in this area. The model proposed by the conservation of resources theory, which has informed much of the more recent research

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on burnout, can be used to develop a logical perspective and may help identify important influences.

Work Environment Studies: Theories of Social Exchange and Symbolism

Underlying the majority of studies in the area of work/family benefits and policies is some form of social exchange or balance theory; researchers expected that employees given more benefits would repay their organizations for supporting them with more positive work attitudes (Grover and Crooker, 1995; Roehling *et al.*, 2001). Implied by this theoretical perspective is the notion that reciprocation from workers is most likely in cases where a supportive work-family environment is noticed by employees and found useful. That is, stronger effects for organizational work/family support are most likely to be found among workers who find them the most useful.

As discussed earlier, research based on these theories has found that workers in supportive environments have more positive attitudes, but the notion that workers most likely to use benefits would have the most positive attitudes received less support (Grover and Crooker, 1995; Roehling *et al.*, 2000). For example, parents of young children or people who were anticipating having a child in the near future were not more influenced by dependent care support and maternity/paternity leave policies (Grover and Crooker, 1995). One explanation researchers have proposed is that a family-friendly environment may act as a powerful symbol which indicates to workers that the organization cares about them and their concerns, and that they will be fairly treated (Grover and Crooker, 1995; Allen, 2001).

The theoretical framework underlying previous research in this area has three important implications for the current study. First, while emotional exhaustion is

conceptualized more as a state than a job attitude, it may be that workers who receive greater support will reciprocate by dedicating a larger amount of their energy to their work. Second, working in a family-supportive environment may have the most benefit for workers who have the most need for assistance in this area, either due to a higher level of demands in the two domains or a lack of alternative resources for coping with them. Third, even if workers do not derive clear benefits from working in a supportive environment (for example, because they have few family responsibilities), the existence of supportive policies and norms may serve as a symbol of overall concern and support on the part of the organization. Perceptions that support is available – even if it is never used – have been associated with less burnout (Lee and Ashforth, 1993).

Underlying Research on Work and Family: Role Theory

For over twenty years, role theory has provided an important framework for research on the relationships between work and family (Voydanoff, 1988). Both on the job and in the home individuals face behavioral expectations often termed "roles" (Jackson and Schuler, 1995; Katz and Kahn, 1978). For example, in her role as a parent, a mother may be expected to assist her children with homework and see that they are appropriately dressed and fed. In her role as a manager, the same woman may be expected to meet with clients, assign responsibility for different projects among her subordinates, and evaluate their work. It is clear that the very definition of work/family conflict is based on the belief that people occupy multiple roles with expectations that can conflict. As can be seen from the this example, not all role expectations are necessarily associated with conflict, but in the case of our manager, time and energy her family

expects her to use for helping with homework may sometimes be consumed in meetings with clients and subordinates.

Role theory as it has been applied to work/family research highlights the importance of considering all of the roles that are relevant in both domains, as well as the most demanding expectations associated with them, because these are the most likely to be associated with conflicts. Research in the area of work/family conflict supports this; major stressors associated with the parental, spouse, and employment roles all have been shown to have important effects, particularly eldercare (Martire and Stephens, 2003), children, work hours, and work scheduling (Frone *et al.*, 1992; 1997).

Also drawing from role theory is the notion each role one occupies may offer enriching experiences and resources (Marks, 1977; Barnett and Hyde, 2000), again highlighting the importance of considering the various roles that are applicable both at home and at work and the benefits they may provide. Social support from family members, supervisors and co-workers has been identified as a benefit that may help buffer the effects of stressors in the two domains, as have greater life and work experience and autonomy (Frone *et al.*, 1992; 1997; Ayree and Luk, 1999).

The importance of including these constructs in any effort to examine influences on work-to-family and family-to-work conflict represents a key implication role theory has for the present study.

Helping Explain Emotional Exhaustion: Conservation of Resources Theory

An emphasis on resources is the distinguishing feature of a theoretical framework that has informed much recent research on burnout over the past few years (e.g. Demerouti *et al.*, 2001; Wright and Cropanzano, 1998; Lee and Ashforth, 1996) as well

as two recent studies involving work-family conflict (Allen, 2000; Grandey and Cropanzano, 1998). The conservation of resources (COR) model proposed by Hobfall (1989) holds that when the resources people rely on are suddenly reduced, threatened, or are insufficient to help them meet the demands they face, stress and other negative personal consequences result. Perceptions of resource shortfalls that continue for relatively long periods of time may lead to burnout, particularly emotional exhaustion. In response, people look for ways to conserve their resources, often through withdrawal behaviors like quitting a demanding job (Hobfall, 1989; Lee and Ashforth, 1996).

The COR model is broad enough to subsume much of the research and theory on stress, including not only burnout, but also conflict between work and family. The breadth and flexibility of this theoretical framework allow it to incorporate the most important contributions of the other theoretical frameworks described in this section. Therefore, it has been used as the primary theory in developing hypotheses for the current study.

The COR model implies that heavy expectations and enhancing features of work and family roles identified by role theory-based research as important can be viewed as demands and resources. Within this framework, work/family conflict can be considered as a stress-related outcome (Grandey and Cropanzano, 1998) and a family supportive work environment can be seen as potentially important resource (Allen, 2000) that may supplement those that previous research has indicated are important at work and at home. Conflict between work and family may also be seen as another demand that likely to increase the experience of burnout.

The implications of the theories and research described in this chapter are further developed in Chapter 3, which introduces the hypotheses to be examined by this study.

CHAPTER 3: LITERATURE REVIEW AND HYPOTHESES

The conservation of resources theory implies that work-to-family conflict, family-to-work conflict, and emotional exhaustion may all be caused by having insufficient resources to meet demands in the two realms, work and home. Workers arrive on the job with personal demands and resources arising from their personal and family situations. Employers have somewhat more control over work-related demands and resources, which may vary significantly based on the characteristics of the job and the worker. At the organizational level, they can work to create a more family-supportive environment. An overview of the main model guiding this research is provided in Figures 1 and 2, which appear on the following pages. As can be seen by examining the model, the three outcome variables, work-to-family conflict and family-to-work conflict are presumed to be influenced by three sets of variables: personal demands and resources, work demands and resources, and in addition to job-level factors, the degree of support for balancing work and family evidenced by the environment of the employing organization. Personal demands and resources, work-related demands and resources, and the organization's work/family environment are also hypothesized to affect emotional exhaustion, both directly (see model 1) and indirectly (see model 2). Indeed, the effects of a supportive work environment are expected to be largely mediated by work-to-family and family-to-work conflict. Moderating effects are also predicted for the variables of greatest interest in the study, those related to a supportive organizational environment. Illustrated in figure 2, these will be discussed at the end of this section. As noted in model 1, race, occupation, and industry are included as control variables in all analyses.

Figure 1: Research Model – Direct Effects

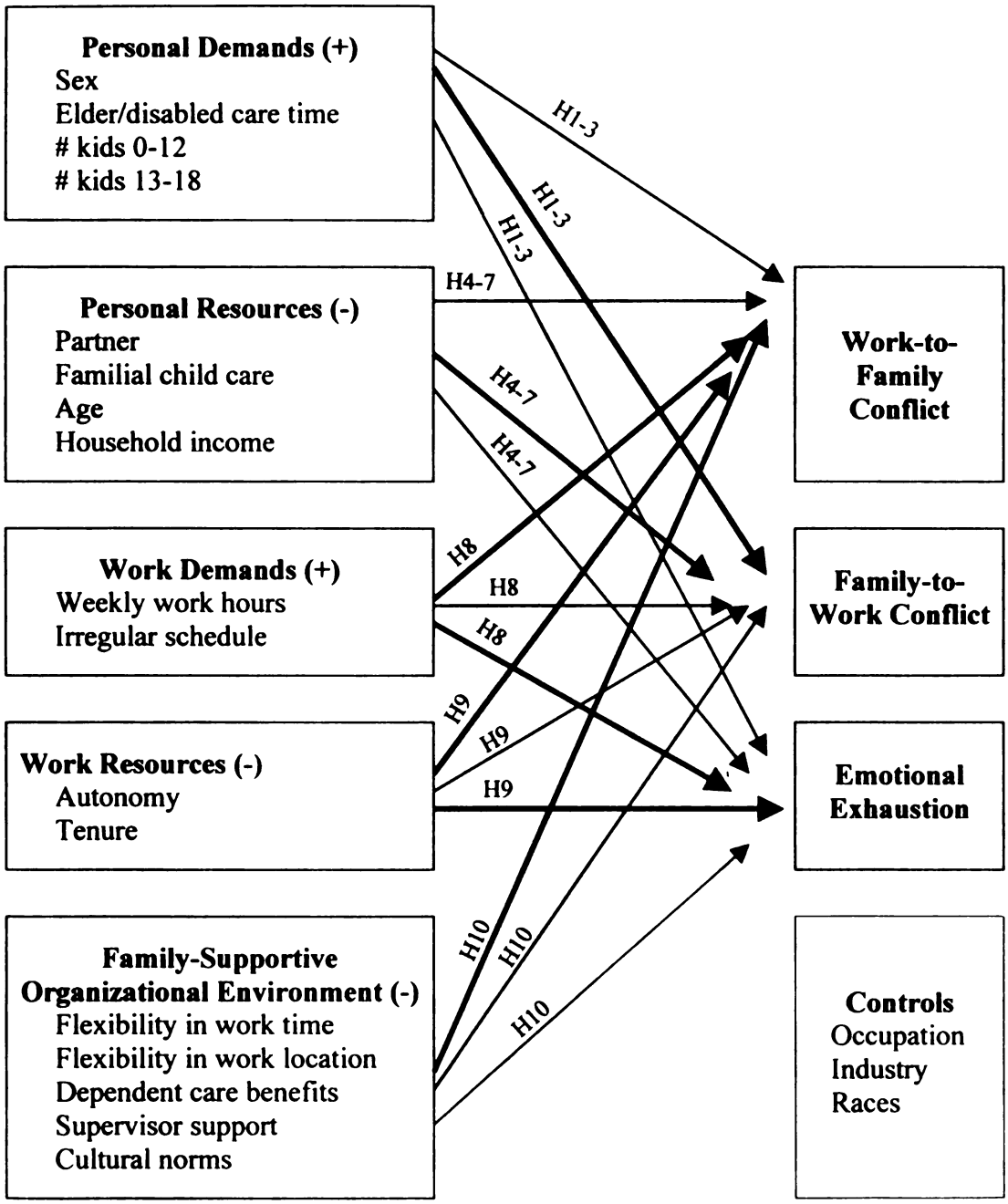
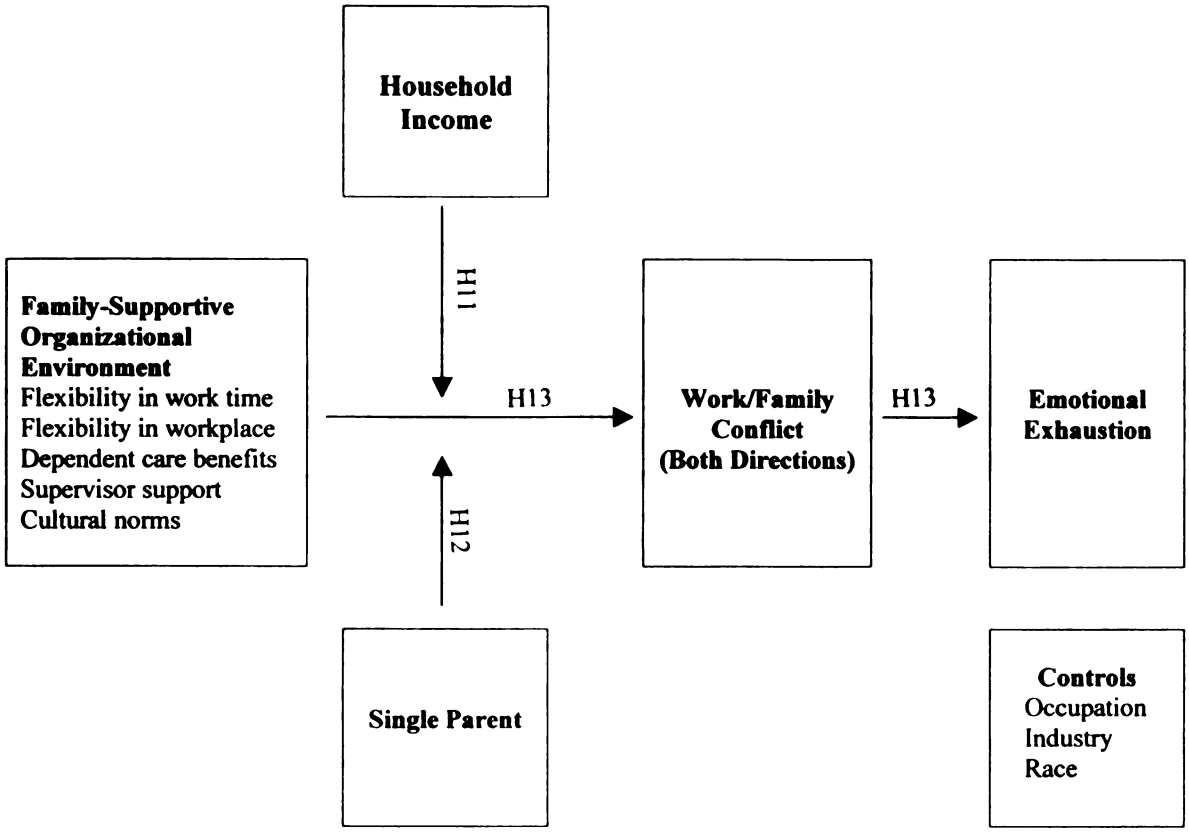


Figure 2: Research Model – Indirect Effects



Personal demands indicators include sex, weekly hours spent caring for elderly and disabled adults, and the number of children 0-12 and 13-18. While the other indicators clearly represent sources of demands, gender is included because women often shoulder a heavier load at home than men (Voydanoff, 2002). Higher demands are expected to increase conflict and burnout, so positive relationships are anticipated between the personal demand indicators and work-to-family conflict, family-to-work conflict, and emotional exhaustion. Personal resources considered here include living with a partner, having a family member provide some or all needed child care, a higher household income level, and the wisdom we associate with being older. Higher levels of resources are expected to reduce conflict and burnout, so negative relationships are

resources are expected to reduce conflict and burnout, so negative relationships are anticipated between the personal resource indicators and work-to-family conflict, family-to-work conflict, and emotional exhaustion. Personal demands and resources are expected to exert the strongest influence on family-to-work conflict, since by its nature such conflict springs from the nonwork domain.

Work demands are represented by longer work hours and an irregular schedule; they are expected to have positive relationships with the three outcome variables, reflecting COR theory's implications that greater demands are associated with negative consequences. Work resources are represented by autonomy and work experience, and are expected to have negative relationships with all three outcome variables. However, as work-to-family conflict and burnout both involve work-associated depletion of resources, work-related factors are expected to be more important than personal ones in explaining them. Therefore, work demands and resources are expected to exert the strongest influence on these two outcomes.

Hours, schedules, autonomy and tenure affect workers at the individual level, and vary based on the job or person. At the organizational level employers have recently shown and interest in supplementing the personal and work resources employees have for dealing with complex combinations of demands on the job and home front. A family-supportive environment represents a potentially important resource for today's workers, and one that may help reduce work-to-family and family-to-work conflict, as well as emotional exhaustion. Five indicators of the employing organization's work/family environment have been selected, including the degree of flexibility in work timing and location, the number of dependent care benefits offered, the degree to which supervisors

are supportive when work/family issues arise, and cultural norms about how choosing family over work can affect employees' careers. A more family-supportive organizational environment is expected to be associated with less conflict and emotional exhaustion; negative relationships between these indicators and the outcome variables are expected.

The major focus of this study is looking at the effects of a family-supportive work environment on work-to-family conflict, family-to-work conflict, and emotional exhaustion in the context of other relevant demands and resources in both the work and nonwork domains. Therefore, more complex hypotheses involving mediating and interaction effects will be tested for this set of variables, illustrated in model 2, which shows hypotheses related to indirect effects.

Several previous studies have identified work/family role conflict as a correlate of burnout, and in general it has been viewed as a stressor that may contribute to increased emotional exhaustion (e.g. Ayree, 1993; Greenglass and Burke, 1988). As family-supportive programs, policies, and initiatives are designed to help employees more successfully manage the combined demands of work and nonwork roles, the clear implication is that they will reduce conflict between work and family in both directions. It is expected that, by reducing such conflict, a family-supportive work environment can also help to alleviate emotional exhaustion. In other words, work-to-family and family-to-work conflict are expected to largely mediate the effects of a supportive work environment on emotional exhaustion. It is also possible that a supportive work environment may have a direct effect on emotional exhaustion by creating a sense of

support, but the policies studied here are not designed to do so. Therefore, because of the nature of the programs, fairly strong mediation effects are expected.

Illustrated in model 2 is the notion, derived from COR theory, that the combination of demands and resources is important in influencing outcomes, implying that workers with fewer alternate resources will benefit most from working in a supportive organizational environment. While a large number of combinations could be examined, two will be the focus of this study because workers in these groups are relatively easy to identify and their circumstances appear to make them particularly strong candidates for needing additional assistance to deal with the work/home interface. Lower income workers are less able to purchase assistance with household tasks and child care, and thus may be expected to benefit more from working in a supportive organizational environment. Support may also be more useful to single parents, who have higher demands and fewer resources on the home front, than other workers.

It is important to note that the model presented here, although it appears complex, is actually a simplification of the work/family interface. Several relationships between the study variables that have been identified in previous research but are not a focus of this study are not shown. For example, although they appear to be separate constructs, research has consistently found significant relationships between work-to-family and family-to-work conflict (e.g. Frone *et al.*, 1998; Netemeyer *et al.*, 1996). Previous research also implies that the relationship between burnout and work/family conflict may be reciprocal (Leiter and Durup, 1996), but this idea will not be examined here, as it is best studied using longitudinal data. The goal, as stated earlier, is not to test a comprehensive model of the work/family interface, but to look at the effects of a

supportive organizational environment in the conjunction with demands and resources that previous research has identified as likely to influence the outcomes selected for focus: work-to-family conflict, family-to-work conflict, and emotional exhaustion.

In the remainder of the chapter, hypotheses are outlined for the way that personal and work-related demands and resources, as well as the organization's environment, are related to the outcome variables.

Personal Demands and Resources

As noted in the previous chapter, the COR approach to thinking about stress-related outcomes focuses on the demands faced by and individual and the resources he or she has available to deal with them. In examining work/family conflict and burnout, demands and resources related to a worker's personal life are important to consider. Personal demands are those that employees bring to the job with them; for example, a family that includes young children, a disabled adult or elderly parent who need to be cared for. While not necessarily a demand in itself, gender can represent a strong indicator of demands, as women still appear to shoulder a larger portion of the burden associated with caring for family members and doing housework (Rothbard, 1999). Employees, of course, also have personal resources to help them cope with such demands on the home front. Potential resources include a live-in partner, a family member who provides most or all needed child care outside school hours, and a higher household income, which can be used to purchase assistance. Age may also be considered a resource, as the greater life experience associated with being older often exposes people to a wider variety of coping techniques and can help them develop patience and a more balanced perspective (Lee and Ashforth, 1993). COR theory implies that negative stress-

related outcomes like work/family conflict and burnout will be more likely for workers with high demands, and may be somewhat alleviated by having more resources. Previous research and hypotheses regarding the personal demands and resources outlined here will be described in greater detail in the next section.

Gender as an Indicator of Demands

As noted in the introduction, evidence suggests that work/family values in the US seem to be changing somewhat, or at least patterns of behavior are. More women are entering the workforce and remaining there while mothering even young children, while men are contributing more at home (Bond, Galinsky and Swanberg, 1998). However, even research from the last decade indicates that traditional views of gender roles continue have an influence (Gutek, Searle, and Klepa, 1991) and women in general still take more responsibility for housework and child care than their male partners in most ethnic groups (Bond, Galinsky and Swanberg, 1998; Goff *et al.*, 1990; Broman, 1988; Ayree, 1993). While being female, then, is not in itself a "personal demand," it may be indicative of a higher level of demands at home.

Gender is the most consistently studied social category in research on work and family (Voydanoff, 2002). While it may seem obvious that women, because they generally take more responsibility for children and housework, would experience more conflict between work and family in both directions, research has not always supported that idea. One recent review (Voydanoff, 2002) concluded that although, particularly where children are involved, reduced work participation and family interference with work appear more common for women, there is no strong evidence that gender is related to work-to-family conflict. Considerable published research supports the notion that

Women are more prone to family-to-work conflict (e.g. Gutek *et al.*, 1991; Kirchmeyer, 1992; Williams and Alliger, 1994; Carlson *et al.*, 2000;Grzywacz *et al.*, 2002). Research has also shown that women are more likely than their partners to take time off when a child is sick (Kossek, 1990; Crouter, 1984). However, there are some contradictions. One study found evidence of family involvement enriching – but not depleting – resources women had available for work (Rothbard, 2001).

The evidence of a link between gender and work-to-family conflict is not consistent, with no relationship found in several studies (e.g. Allen, 2001; Thompson *et al.*, 1999) but there is some support. Being female was associated with greater conflict, both from work-to-family and from family-to-work, in a recent study of university professors (Grandey and Cropanzano, 1999). In a nationally representative study of mid-life adults, women experienced more conflict in both directions (Grzywacz *et al.*, 2002). A study of working adults in various occupations also found that women experienced more time-, strain- and behavior-based family-to-work conflict along with more strain-based work-to-family conflict (Carlson *et al.*, 2000). Women experienced a depletion of resources available for family when strongly involved in work, while men did not, in a study of university employees (Rothbard, 2001). And using a unique design that involved asked study participants to report on their moods and attitudes at various intervals Williams and Alliger (1994) found that women experienced stronger spillover from work to home as well as from home to work.

Research in the area of burnout also indicates that gender may influence burnout (Lee and Ashforth, 1993), with studies fairly consistent in showing that men more are inclined to depersonalization (e.g. Maslach and Jackson, 1985; Greenglass and Burke,

1988). While findings are not consistent, some research also supports the notion that women are more prone to emotional exhaustion than men (e.g. Maslach and Jackson, 1985; Etzion, 1988; Ayree, 1993). Cordes and Dougherty (1993) report women experiencing significantly greater levels of emotional exhaustion in four studies, but not in six others. In only one case did men report a statistically significant higher degree of emotional exhaustion, and this was only true for a subgroup made up of managers (Pretty *et al.* (1992). All of these studies involved workers in a single occupational area and/or organization, which is likely to have reduced variance and the likelihood of finding effects.

Given that women take on a higher share of domestic work, they may have higher overall demands than men, and should thus logically be more prone to emotional exhaustion (Greenglass and Burke, 1988). Women are also more likely to be employed in the human service professions that burnout was originally conceived about because of the intensive nature of the interactions involved (Ray and Miller, 1994). At home, women are often expected to be nurturing, empathetic, and sensitive to others, the same expectations that are placed on human service workers and considered in much research to contribute to burnout (Lee and Ashforth, 1996). When forced to deal with demands both at home and at work, women may find that they give to everyone but themselves, making them prime candidates for burnout (Ray and Miller, 1994; Maslach, 1982).

H1a,b,c: Being female will be associated with higher levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Caring for Elders and Disabled Adults Can Be a Burden

As Americans have begun living longer, one issue that has attracted increasing attention is the care of elderly relatives. Parents and other adult family members in ill health can be a powerful and unpredictable source of personal demands, and one that can increase negative stress-related outcomes in the COR theory view.

More and more workers are finding themselves with eldercare responsibilities; over the course of a year, an estimated one-fourth of US employees provide care for an elder (Bond, Galinsky and Swanberg, 1998). Eldercare responsibilities are a logical source of work-to-family conflict and a precursor to burnout, and this has generally been supported by previous research (e.g. Martire and Stephens, 2003). Similar demands and reactions are likely to be experienced by workers providing care for disabled adults not yet in their sixties. Because caring for a disabled adult can also present similar challenges, rewards, and experiences, both have been combined to create a single measure of special caregiving demands here.

Previous research has shown that eldercare givers are more likely to report work-to-family conflict (Sharlach and Boyd, 1989; Tennestedt and Gonyea, 1994; Martire and Stephens, 2003). Caregiving has also been associated with increased family-to-work conflict (Martire and Stephens, 2003) as well as absence and tardiness, both indicative of such family-to-work conflict (Anastas *et al.*, 1990; Sharlach and Boyd, 1989; Tennestedt and Gonyea, 1994). Caregivers have also reported more frequent stress on the job and high levels of fatigue (Tennestedt and Gonyea, 1994), and can be considered more likely to experience emotional exhaustion.

H2a,b,c: Spending more time caring for elders and disabled adults will be associated with higher levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Children: A Key Source of Demands

On the home front, among the first personal demands that come to mind are those associated with raising children. Infants require almost round-the-clock supervision and care, and while older children may be more self-sufficient, parents still must take care of basic needs like food and clothing, support them in their efforts to learn, ensure that they have appropriate supervision and activities, and provide emotional and financial support. The time demands are considerable; a study of working parents found that they spent, on average, 3.2 hours on workdays and 8.2 hours on nonworkdays caring for their children. In addition, while non-parents reported that household tasks required about 2 hours on workdays and 4.4 hours on nonworkdays, parents spent 2.5 hours on work days and 5.2 hours on nonworkdays on chores (Galinsky, Bond and Friedman, 1996).

Research has shown that having children, especially young children, is associated with more family-to-work conflict (e.g. Grzywacz *et al.*, 2002; Judge *et al.*, 1994). Findings are less consistent regarding the relationship of age or number of children to work-to-family conflict, with some studies finding no significant relationship (e.g. Allen, 2001; Thompson *et al.*, 1999; Goff *et al.*, 1990) and others finding a moderate link (e.g. Judge *et al.*, 1994; Ray and Miller, 1994). This is consistent with a large body of research that shows that family-related variables are more strongly related to family-to-work conflict, while work-related variables are more closely related to work-to-family conflict (e.g. Frone, Yardley and Markel, 1997; Frone, Russell and Cooper, 1992; Ayree, Fields,

and Luk, 1999). Another contributing factor is likely that most studies in this field only include workers with spouses or children, or both, reducing variance. While having more children means more people who require attention and thus is likely to contribute to work-to-family conflict, the effects are likely to be much weaker than for family-to-work conflict.

But in spite of – or perhaps because of – the great amount of attention that children require, some previous research has found that parents tend to experience lower levels of burnout, rather than higher. Maslach and Jackson compared mean levels of emotional exhaustion for parents and nonparents employed in public contact positions at a government agency, and found that nonparents were more exhausted. However, they do not report controlling for age in this analysis, and indeed posit that workers with children may be older and more mature, which could help them to cope better with job demands. Other proposed reasons included the notion that children provide needed distractions and a non-work source of positive feedback and support or that parents are less likely to see work as their main source of personal fulfillment and may not get as deeply involved in it as nonparents. In the only other study located that actually reported on the relationship between having children and burnout, Ayree (1993) found a small *positive* correlation between the number of children under six and burnout among dual-career couples in Singapore. The relationship, estimated at $r = .11$ for men and .14 for women, was not statistically significant, likely because of the relatively small sample size and the fact that all participants had at least one young child. Other studies in this area have also tended to focus on workers with families, reducing variance, and have

generally used the number or existence of children as control variables without reporting associated effects estimates.

Therefore, while studies show that children are likely to increase work/family conflict, previous research has found both positive and negative effects on burnout. Because this study utilizes the number of children employees are responsible for rather than parental status, we expect results consistent with a demand perspective – workers with more kids are expected to experience greater emotional exhaustion.

H3a,b,c: Having more children, particularly young children, will be associated with higher levels of work-to-family conflict[a] and family-to-work conflict[b] and emotional exhaustion[c].

Partners Can Provide Support

A spouse or live-in partner can be a strong resource for workers in dealing with the multiple demands of their lives, and this is especially true for people with children. A partner can provide practical assistance by handling household chores, preparing meals, or taking care of children. A partner can also be a strong source of emotional support, by listening, offering advice, and providing comfort when problems are encountered. Support from partners and families has been associated with lower levels of emotional burnout (Leiter and Durup, 1996; Ray and Miller, 1994; Lee and Ashforth, 1996) and both work-to-family and family-to-work conflict (Leiter and Durup, 1996; Frone, Yardley and Markel, 1997).

Results from studies have not always been consistent, but marital status and partner support have generally been associated with lower family-to-work conflict (Frone, Yardley and Markel, 1997). However, helpful as a spouse may be, just having

someone who expects to spend time with you can be a source of demands that increases work-to-family conflict. While some studies have reported a reduction in such conflict due to spouse support (e.g. Parasuraman *et al.*, 1992, but for women only, Grandey and Cropanzano, 1999, but due to a small sample the effect was not statistically significant) many seem to find no relationship between work/family conflict and marital status (e.g. Thompson *et al.*, 1999; Judge *et al.*, 1994; Ray and Miller, 1994) or that having a spouse is associated with more work-to-family conflict (e.g. Burke, 1988; Staines and O'Conner, 1980; Ray and Miller, 1994). Although a partner can have both positive and negative influences, here it is hypothesized that being in a relationship will be associated with less conflict in both directions.

Research generally indicates that family support and resources are associated with less emotional exhaustion (Lee and Ashforth, 1996), but results are not completely consistent. A study of mental health workers found that people who indicated that their families used external resources such as extended family or neighbors when problems crop up were less likely to suffer increasing levels of emotional exhaustion over a six-month period (Leiter, 1990). While Greenglass and Burke (1989) found that marital satisfaction was a significant predictor of burnout for female educators, the same did not hold true for their male colleagues. Leiter and Durup (1996) found that higher levels of family support were associated with less emotional exhaustion among nurses, but in another study of health care professionals Ray and Miller (1994) found higher levels of both family and co-worker support associated with more emotional exhaustion. This was the only study to find that support from a spouse had a positive association with burnout. While not all studies included in Cordes and Dougherty's (1993) review found that being

married had a statistically significant association with less emotional exhaustion, none found that single people tended to be less emotionally exhausted. Overall, then, most research does seem to indicate that having a spouse, particularly a supportive one, may reduce feelings of emotional exhaustion (Lee and Ashforth, 1996). While most studies consider actual marital status, a live-in life partner should be able to play a similar role, whether or not a wedding has taken place.

H4a,b,c: Living with a partner will be associated with lower levels of work-to-family[a] conflict, family-to-work conflict[b] and emotional exhaustion[c].

Family Child Care Reduces Burdens

While simply having a spouse has not consistently been associated with less work/family conflict, having one who shoulders the main burden of child care demands can be a strong resource, as shown by research on dual- and single-earner families. Other family members – grandparents, aunts and uncles, and older siblings – can also provide workers with a greater sense of security and more reliable assistance when they take responsibility for a some or all child care. For example, Kossek (1990) found that workers who relied completely or partially on family members to care for their youngster reported more positive attitudes about managing work and child care responsibilities than those who had to depend on nonfamilial assistance. Kossek and Nichol (1992) also found that family help with child care was associated with more positive attitudes towards managing work and child care responsibilities, fewer problems with care, and fewer child-care related absences as estimated by supervisors. Thomas and Ganster (1995), too, found that having a spouse who handled child care was associated with less work-to-family conflict and better health-related outcomes. However, comparing means, Goff, Mount and Jamison

(1990) did not find significant differences between those with spouses who cared for children and those who didn't in terms of work/family conflict or absences, possibly because those whose spouses cared for their children generally had more young children. Despite this negative finding and the fact that childless respondents would have no need for such assistance, it has strong implications for the experiences of working parents.

No studies of burnout were located in which the degree of family child care was considered. However, this is a form of instrumental support that should be highly associated with the family and spouse support measures which, as noted above, have been correlated with emotional exhaustion in previous research. A spouse or other family member who handles child care represents a valuable resource for working parents.

H5a,b,c: Having a most or all needed child care provided by a family member will be associated with lower levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Household Income – A Key Resource

One of the most important personal resources a worker has in dealing with nonwork demands is household income. Whether the money comes from the employee's salary, a partner's earnings, investments, inheritance, or other sources, a higher income makes it possible to purchase assistance with child care and household tasks (Thompson, Beauvais, and Lyness, 1999). Financial resources can be used to make mealtimes less demanding and more pleasurable by paying for take-out food, restaurant service, or at the high end, a personal chef. While low-income families may sometimes struggle just to afford basic goods and services, middle income families may take the cost of child care in stride, and higher-income families can easily pay for assistance with yard and housework.

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A higher income also may make it possible to pay for more or higher-quality day care for children, or for care options that may provide working parents with more flexibility and a stronger sense of security, like a live-in nanny. Income may also affect a worker's ability to take advantage of the benefits an organization offers. One study found that use of family-related benefits that required workers to cover a portion of the costs (such as paying for on-site daycare or covering the cost of company-sponsored summer camps for older children) were more likely to be used by higher-income workers, except in the case of emergency care for sick family members (Lambert, 1995).

Most research in the area of work and family has involved fairly homogenous groups of workers with the same occupation, often from middle- to upper-class backgrounds (Kossek and Ozeki, 1998). With a few notable exceptions (e.g. Lambert 1995), where family income has been considered, it is usually treated as a control variable and its effects are often not reported (e.g. Frone, Yardley and Markel, 1997; Greenglass and Burke, 1989). In general, researchers have not deeply examined the effects of finances or social class and have not provided a clear picture of how the work/family interface may differ for those with higher or lower incomes (Voydanoff, 2002). Similar criticisms can be applied to the burnout literature, which until very recently focused only on workers in human service fields (Demerouti *et al.*, 2001). Research on burnout is comprised mainly of studies that involve only teachers, just nurses, managers, or other homogenous groups likely to be similar in salary, meaning that where it is considered at all the variance in family income is reduced.

Because of the focus on work/family conflict and burnout, household income, rather than salary, is the appropriate measure for this study. While salary levels may

contribute to job satisfaction or turnover intentions, the level of total household income provides a better picture of the financial resources workers can draw on to help them manage conflicting responsibilities.

Previous research does indicate that having a high-salary job is associated with more work/family conflict (e.g. Allen, 2001; Parasauraman *et al.*, 1992; Judge *et al.*, 1994), although this may be more true for women than for men (Parasauraman *et al.*, 1992). Since having more money would not logically make it more difficult to balance work and family, the effect likely captures the increased demands associated with jobs that involve higher pay, especially for women who already have high demands at home. Judge *et al.* (1994), noted, for example, that the mean levels of work-to-family and family-to-work conflict reported by the male executives in their study were higher than those reported by Gutek *et al.* (1991) for a study involving groups of psychologists and managers as well as the mean levels reported by Frone *et al.* (1992) for a heterogeneous cross-section of workers. Pointing out that the male executives they studied also worked an average of 56 hours a week, considerably more than participants in other studies, Judge *et al.* suggested that the major difference may be because their jobs were more demanding. With occupation and industry also included in the analysis, the effects of job differences should be controlled and the positive effects of having a higher income should be more clear.

In the one study located that relied on a broad national sample of workers in which household income was considered a major explanatory variable, hours worked and a six-category industry variable were the only job characteristics included in the analysis, which didn't find a significant relationship between being in the lowest income quartile

and greater work/family conflict in either direction (Grzywacz *et al.*, 2002). Another possible reason is that some earners in the second quartile may also have had relatively low incomes, but this could not be determined because the study provided no information on quartile cutoffs or how they compared with Census Bureau estimates. In a study of working parents of L.A. preschoolers, Greenberger *et al.* (1989) found that among married and single mothers a higher household income was actually related to more role strain, which they conceptualized as combining work-to-family and family-to-work conflict, as well as a sense of overload and conflict within each role. For men, there was no relationship. Again, the results likely reflect the influence of job demands on both variables, especially since strain within the work role was included in the role strain measure.

Another issue possibly affecting results is that the effects of income are likely not continuous. As noted by Voydanoff (1988), a minimum level of income is necessary for family stability. Below a certain threshold, the cost of daycare assistance for even a single child represents an almost overwhelming proportion of income. At moderate income levels, such costs can be more easily absorbed, even if more expensive forms of assistance are less likely to be considered. There should be little difference between the merely wealthy and the super-rich in their ability to afford nannies, house cleaners, yard service and other assistance. Logically, the lower, middle, and upper income classes commonly used in social and economic research appear the most appropriate way the examine the effects of income level, although it is difficult to know where to draw the lines dividing the groups. For the purpose of this study, US Census bureau statistics on

household incomes were used as a starting place. More information on income classifications used is included in the methods section.

Previous research on burnout has generally involved homogenous samples of human service workers, so income has not been a major focus of study, although contingent rewards have been shown to serve as a resource associated with reduced emotional exhaustion (Lee and Ashforth, 1996). Even among the handful of studies located that combined a focus on burnout and work/family conflict, none reported information on salary or household income. As noted earlier, however, they do offer considerable support for the notion that minimizing conflict between work and family roles may lead to less burnout. Studies on the relationship between work-to-family conflict and emotional exhaustion have consistently reported strong connections; in a recent review, Allen and colleagues (2000) reported that the weighted mean correlation in 10 identified samples was .42. While the estimated effect size was smaller, Leiter and Durup (1996) also reported a significant relationship between family-to-work conflict and emotional exhaustion both at the time of the survey and three months later. Therefore, personal resources that are useful in reducing such conflict should be associated with lower levels of emotional exhaustion.

Aside from reducing conflict, money that can allow workers to hire paid help with household tasks should enable them, if they choose, to free up energy that might otherwise be used on chores at home and use it in other domains, like work. It may also be used for equipment that can make tasks at home or at work easier and less time-consuming (like electronic personal planners, lap top computers, cell phones, dishwashers, and power lawn mowers) and for recreational activities that can serve as a

way to rest and recharge. Having a higher income should also be associated with less worry about having enough money to pay for necessary expenses, a potential source of stress at home that may contribute to emotional exhaustion.

H6a,b,c: When occupation and industry are controlled, a higher household income level will be associated with lower levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Age Means More Life Experiences, An Important Resource

Being older means having more experience in a wide variety of situation, which may help workers both at home and on the job, as well as in balancing the demands of both realms. As the common adage implies, with age comes wisdom, a powerful personal resource.

Previous research has shown that, even with gender and the presence of young children controlled for, being older is associated with less conflict, both from work to family and from family to work (Grzywacz, Almeida, and McDonald, 2002; Grandey and Cropanzano, 1999). Being older is also associated with reduced burnout (Cordes and Dougherty, 1993; Maslach, 1982), likely because experience helps people to develop better coping skills (Lee and Ashforth, 1993), and older workers are likely to have more different types of life experiences and coping skills to draw on. Age has generally been included in research on burnout and work and family as well, often as a control variable. However, the COR model highlights the importance of age as a valuable potential resource rather than a miscellaneous source of variance in the outcome measures. Thus, while the inclusion of age as a predictor of work/family conflict and burnout is not new, here we draw attention to its role as a personal resource.

H7a,b,c: Being older will be associated with lower levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Work Demands and Resources

No study on emotional exhaustion or work/family conflict could provide an accurate estimate of the effects of other influences without considering work-related demands and resources. Job characteristics have been significant predictors of these stress-related outcomes in previous research, as COR theory, with its emphasis on demands and resources, would lead one to anticipate.

In their very conceptualizations, work-to-family conflict and emotional exhaustion both reflect the view that work can drain people of valuable resources, depleting their stores of time and energy and negatively affecting their ability to perform family roles (in the case of work-to-family conflict) and the level of emotional energy they bring to work (in the case of burnout). Family-to-work conflict may also be more of an issue when the expectations associated with a job are very high, leaving fewer resources for dealing with non-work roles. Some jobs clearly involve more demands than others. Two types of work demands previous research shows may be important have been included here: weekly work hours and having an irregular work schedule. Note that these are likely to be characteristics of the job, rather than the employing organization as a whole – managers are more likely to work long hours and shift work is more common at lower levels.

Among the resources workers can use to deal with these demands, autonomy and experience in the organization appear to be particularly useful. Jobs which are designed to provide workers with greater autonomy give them a sense of control and the ability to

make sure their work is done in a way that also takes into consideration nonwork demands. Longer tenure in an organization in general may mean stronger personal networks and a better understanding of the most effective ways to do one's job, as well as ways to acquire organizational resources and manage job-related demands.

In this section, research on how these work demands and resources may affect work/family conflict and emotional exhaustion is reviewed and related hypotheses are presented.

Long Work Hours and An Irregular Schedule: Sources of Stress

Sheer volume of work represents perhaps the most important of job demands facing today's employees. Another important demand is a requirement to be at work when most people are at home or involved in personal activities – in other words, the requirement to work an irregular shift. Research bears out the impact COR theory predicts work demands should have on the three stress-related outcome variables in this study, particularly long hours and an irregular schedule.

A heavy workload has been linked to burnout in many studies (e.g. Leiter and Durup, 1996; Bacharach, Bamberger and Conley, 1991). In fact, in their meta-analytic review, Lee and Ashforth (1996) found workload to be the strongest predictor of emotional exhaustion. A heavy workload, working long hours, staying late in the evenings, or having more work than one can comfortably handle has been consistently associated with more bidirectional conflict and work-to-family conflict (e.g. Staines, Pottick and Fudge, 1986; Cooke and Rousseau, 1984; Bacharach, Bamberger and Conley, 1991; Leiter and Durup, 1996; Frone, Yardley and Markel, 1997; Galinsky, Bond and Friedman, 1996: Judge *et al.*, 1994). Weaker relationships have been found for family-

to-work conflict (Leiter and Durup, 1996; Frone, Yardley and Markel, 1997). This is consistent with the large body of research that indicates that work-related demands and resources are more closely linked to work-to-family conflict, while family stressors and supports tend to have a stronger impact on family-to-work conflict (e.g. Frone, Yardley and Markel, 1997; Ayree, Fields, and Luk, 1999).

Many studies have measured workload with items that asked respondents to assess the demands of their jobs. Leiter and Durup (1996) for example, used a four-item measure that included an item asking, "How great is the amount of emotional strain your job puts on you?" However, because of the subjective nature of such questions and the similarity of their content to commonly used measures of work/family conflict and burnout, personality influences, current mood and common method variance may lead to overestimates of the relationships between these variables. Frone Yardley and Markel (1997), who used both hours worked and a subjective measure of overload that asked for agreement on three items such as, "I have too much work to do everything well," found stronger relationships to both work-to-family and family-to-work conflict for the subjective measure. To reduce concerns about common method variance, this study will rely on two very straightforward measures of work demands: total hours worked per week, and whether the respondent's job involves a regular daytime schedule or some other schedule. Working longer hours reduces the time available for family and other outside activities, while working irregular hours can also lead to work/family conflict (Pleck, Staines, and Lang, 1980) as a nonregular schedule makes it hard to have free time when family members, especially children, are at home. Longer hours have been associated with greater work-to-family conflict in several studies (e.g. Thompson *et al.*,

1999; Pleck, Staines and Lang, 1980) and even in a study where the degree of work-to-family conflict was rated by employees' wives, longer hours were associated with more conflict (Burke, Weir, and DuWors, 1980). Both long hours and irregular hours can also make it more difficult to find child or elder care assistance. In a study investigating what made workers in dual-career families feel they had been successful at work, family and balancing the two, irregular schedules were one of the most significant negative influences (Moen and Yu, 1999). They have also been associated with greater emotional exhaustion (Demerouti *et al.*, 2001). While the effects are expected to be greater for work-to-family conflict and emotional exhaustion than family-to-work conflict, all three are likely to be increased by longer hours and irregular schedules.

H8a,b,c: Greater work demands (longer hours and an irregular schedule) will be associated with higher levels of work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c].

Autonomy Allows Workers to Take Control of Problems

Autonomy on the job has been identified as an important resource that empowers workers to develop solutions for resolving conflicting demands. While the negative effects of job demands appear to be stronger than the positive effects of work resources, in a number of studies having greater autonomy has been associated with less work/family conflict (e.g. Greenhaus *et al.*, 1989; Burke, 1993; Galinsky, Bond and Friedman, 1996) and burnout (Burke, 1993; Demerouti *et al.*, 2001; Lee and Ashforth, 1993; Iverson, Olekalns, and Erwin, 1998). Lambert (1990) offers some reasons why, suggesting that autonomy helps workers to balance work and family responsibilities by making it possible for them to schedule work tasks around family activities. She also

suggests that autonomy makes it easier to take time off when needed and possibly even bring children to work if necessary. As she suggests, autonomy may contribute to greater flexibility. Autonomy also increases workers' ability to directly confront sources of stress and resolve problems and may increase a worker's sense of control (Lee and Ashforth, 1993), both over work itself and the overlaps between work and family. A sense of control over work and family issues was strongly associated with lower work-to-family conflict in a study of health care professionals (Thomas and Ganster, 1995). A level of autonomy consistent with or greater than the level desired was associated with less anxiety, depression, irritation and fewer stress-related health symptoms in a sample of university employees (Edwards and Rothbard, 1999).

In their meta-analytical review of burnout predictors and outcomes, Lee and Ashforth (1996) found only a weak relationship between autonomy and emotional exhaustion, a mean weighted correlation of -.13, with zero in the confidence interval for the relationship after correction for attenuation due to error of measurement and sampling error. However, a meta-analysis simply involves averaging the results found in previous studies, and since most studies involved homogeous samples of service workers in similar jobs, it is quite possible that a low level of variance in autonomy within studies has affected the results. In a study of workers from a mix of very different professions – teachers, nurses, assembly line workers, and air traffic controllers – Demerouti *et al.* (2001) found that greater job control (measured with items similar to autonomy scales) was strongly related to emotional exhaustion ($r=-.26$). An alternate explanation for the weak results in the meta-analysis might be that excessive autonomy – having much less direction than one desires – results in negative outcomes (Edwards and Rothbard, 1999)

such as a feeling of being lost and lacking control, increasing rather than decreasing burnout. However, the literature so far does not allow such conclusions to be examined, at least in part because of the tendency to focus on homogenous samples.

Overall, it appears likely that, especially in broader samples, autonomy is associated with less work/family conflict and emotional exhaustion. Considerable support for this comes from a study of hospital workers at all levels, which found that through its influence on in-role stress autonomy had a significant effect on emotional exhaustion, even after controlling for the personality influences of positive and negative affectivity (Iverson, Olkalns, and Erwin, 1998).

Tenure Means Valuable Skills

Another potential resource for workers to draw on is experience in the same company. Knowing the ropes and better ways to do things can reduce work-related demands in the form of stresses and overtime. Experienced workers may also have better access to valuable resources (Grandey and Cropanzano, 1999) and may have developed better coping methods (Lee and Ashforth, 1993).

Research on the relationship between tenure and work/family conflict does not report consistent results; however, positive effects have been reported for men, who tend to have longer tenure, particularly in older studies. For example, longer tenure was associated with lower levels of work/family conflict in men studied by Judge *et al.* (1994) and Parasuraman *et al.* (1992). No relationship was found in several studies that included larger numbers of women (e.g. Thompson *et al.*, 1999; Allen, 2001), but neither included controls for occupation, which could have made a difference.

Although several small studies of teachers found no significant relationship between experience and burnout (Cordes and Dougherty, 1993), in other fields job experience and tenure have been found to affect the way that employees differ in their experience of burnout (Lee and Ashforth, 1983; Maslach, 1982). Authors of these two studies, both of which involved human service workers, expressed the opinion that more experienced workers may be better at dealing with difficulties and have better skills for coping with clients. In addition, they note that people who have find a particular position extremely stressful are likely to quit and so would not have long tenure.

H9a,b,c: Having more job-related resources (greater autonomy and more experience working at one's current organization) will be associated with lower levels of work-to-family conflict[a], family-to-work conflict[b] and emotional exhaustion[c].

A Family-Supportive Work Environment

Many organizations today are attempting to supplement the personal and work-related resources employees have available to manage the multiple demands associated with their jobs and families. As discussed earlier, they are doing this by increasing flexibility in when and where work can be done, offering "family-friendly" benefits, such as those that help employees find and pay for dependent care assistance, and by striving to create a climate where supervisors and cultural norms are supportive of employee efforts to balance work and family. Formal benefits and policies combine with informal expectations and norms in creating an organizational environment that can be more or less supportive; drawing on COR theory, a more supportive environment can be seen as important supplementary resource for workers dealing with demands in two domains.

Based on previous research, four ways in which organizations can help promote a more family-supportive environment have been selected as indicators of how supportive employing organizations are: increasing flexibility in work time and location, providing dependent care benefits, encouraging supervisor support with work and family issues, and promoting family-supportive cultural norms. The literature on these types of supports is described next.

Flexibility in Work Time Reduces Conflicts and Stress

Flexibility in when work is done is often viewed as a key resource for workers with families. Flexibility is seen as easing the difficulties that arise when workers face demands to complete their work, but at the same time need to support their family members, perhaps by driving an elderly parent to a medical exam or attending a child's school activity.

Despite widespread organizational commitment to flexibility, little research has been published in academic journals regarding its effectiveness (Kossek and Ozeki, 1998; Baltes *et al.*, 1999). The wide range of conditions and samples studied is one reason for a lack in consistency in results. In their meta-analytic review of the literature of flextime, Baltes and colleagues (1999) concluded that, overall, studies to date indicate that flextime is weakly associated with higher job satisfaction, and somewhat more strongly with lower absenteeism. Reported effect sizes appeared to be weaker for studies that focused on managers and professionals, those with less rigorous methods, and in cases where flextime had been in place for longer. They did not code for other sample characteristics, but the authors of two studies (Bohen and Viveros-Long, 1981; Shinn *et al.*, 1989) suggest that flexibility may have the most benefit for single workers and others with low

levels of family responsibility, contrary to the assumptions of work/life program planners. They suggest that flexibility may not help enough to reduce the heavy load working parents of young children carry. However, they caution that there could be other factors involved. The findings of their research are compatible with those of a large-scale study of working adults which found that flexible time and leave policies did not explain a significant proportion of variance in a bidirectional measure of work/family conflict after controlling for demographic, job, financial, and family characteristics, including recent absences from work due to child care demands, and child care breakdowns (Galinsky, Bond, and Friedman, 1996). One reason may be that the last two, in particular, are so closely associated with family-to-work conflict. Also supporting a negative view of the helpfulness of such policies, Dunham *et al.* (1987) found that workers who switched to a flextime schedule reported a statistically insignificant rise in interference with activities involving family and friends and access to needed goods and services. And in a study of dual-income families with preschoolers in Singapore, schedule inflexibility was not associated with work-spouse conflict among both mothers and fathers; the correlations reported for work-parent conflict were larger (.12 for men and .16 for women) but were not significant due to the relatively small size of each sample group.

However, other studies support a more positive view. Greenberger *et al.* (1989) found that supervisor flexibility in allowing workers to take time out for family matters was associated with lower role strain (a measure mixing work/family conflict with in-role conflict and overload) for married mothers, although not for single mothers or married fathers. Greenhaus *et al.* (1989) found that, even with autonomy controlled for, flexibility

was associated with reduced work-to-family conflict. Winnette, Neale, and Williams (1982) reported that parents of young children working for federal agencies used flextime to spend more quality time in the evenings with their families and reported less difficulty engaging in familial, recreational, educational, and chore-related activities in a diary-based study. In a study of workers in several organizations and a women's business association, Allen (2001) found that greater use of benefits providing flexibility (flextime, compressed work week, telecommuting, and part-time work) was associated with less work-to-family conflict, although greater availability was not. Thomas and Ganster (1995) found that more flexible schedules were moderately related to a sense of increased control in work/family balancing, but while flexibility was associated with lower work-to-family conflict the relationship was not significant, possibly because their study involved nurses, who have considerable flexibility in switching shifts. Overall research to the present, then, provides some support for optimistic views that flexibility in when work is done leads to lower work-to-family conflict, but findings are not conclusive.

No studies were located that directly measured the relationship of time-based flexibility to family-to-work conflict. However, it seems likely that by allowing workers to set their own hours, within limits, organizations may enable employees to take care of family business when they need to and make up for lost time on the job later, reducing family intrusions on work time as well as a sense of strain that may carry over to affect concentration on the job. This is not a minor issue; Williams and Alliger (1994) found that family concerns were much more likely to interrupt concentration and moods at work than visa versa, likely because workers often need to really focus on the job. Even single

workers living alone can benefit from a more flexible approach to work hours, which can make it easier for them to participate in social activities, schedule visits with health care providers, and attend events associated with family and other important people or interests in their lives (Grover and Crooker, 1995) without creating conflicts between their outside lives and work. Supporting that notion are findings on absences. Dalton and Mesch (1990) found that introducing flextime reduced absenteeism among utility company workers, and when regular hours were reintroduced, days of work missed again climbed. Flextime was associated with fewer absences in several other studies (e.g. Krausz and Friebach, 1983; Erickson, Nichols and Ritter, 2000), although one study comparing staggered, fixed starting and quitting times with flexible hours that could be changed daily found those under the more strict schedule were less likely to miss work (McGuire and Liro (1987).

The single study found that looked at an exhaustion-based burnout measure in conjunction with schedule flexibility, however, did find a significant association for mothers of preschoolers in dual-career households, but for fathers there was no relationship, perhaps reflecting the strong differences in family role expectations in the country where the study was conducted: Singapore (Ayree, 1993). Women who reported a high degree of difficulty in changing work hours and days experienced more burnout.

In addition to helping workers balance their work and nonwork lives, flexibility in work time can reduce another source of stress, commuting. Flextime can allow workers to adjust their travel time to avoid peak rush periods, reducing the amount of commute time and related stress, both of which can drain workers of energy. Also, if one doesn't feel compelled to arrive at the office by exactly 8:00 a.m., being caught in an accident- or

construction-related traffic jam is bound to be less upsetting (Pierce and Newstrom, 1982, 1983). By helping with work/nonwork conflicts, reducing concerns about commuting, and providing workers with a sense of control that may make it easier to tackle problems that are best resolved during work hours, flexibility is likely to reduce emotional exhaustion.

Flexibility in Work Location May Be Helpful

Flexibility in where work is done can represent an important resource when dealing with simultaneous demands related to job and family. For example, being able to work from home may allow an employee to finish an important project while also caring for a sick child. Despite rising interest, academic journals contain few reports of research on the effects of providing greater flexibility in where work is done.

Where working at home once meant sub-assembly and sewing piecework, in today's advanced US economy it is most likely to involve using computers and telecommunications tools. Most of the information that is available on teleworking or telecommuting, as it is often called, comes from studies that are descriptive, rely on self-report measures, and base their results a small number of employees (Hill, Miller, Weiner, and Culihan, 1998; Feldman and Gainey, 1997).

Studies that have looked at whether having the ability to work from home increases or decreases work-to-family conflict found that it did, and it didn't. Duxbury, Higgins, and Neufeld (2000) found that a small group of voluntary telecommuting pioneers reported less work-to-family conflict six months after starting to work one to three days a week from home, while their colleagues who remained under the same schedule didn't experience significant change. Some 38 percent noted that

telecommuting enabled them to spend more time with their families. In contrast, Hill *et al.* (1998) compared IBM workers who were required to operate under a "virtual office plan" that reduced office space while giving them electronic tools to work from anywhere with colleagues who remained in traditional work locations, finding no difference in work/family conflict between the two groups. The researchers also collected and coded comments; frequent themes included complaints that the boundary between work and family life had become blurred, making virtual employees feel as if they were always working, contrasted with positive comments about how the new program helped participants fulfill household responsibilities and strengthened family relationships. Mirchirandi (1998) extensively interviewed a small group of female telecommuters in a variety of jobs and organizations, also finding that doing work at home sometimes led workers to feel that their private sanctuaries had been invaded and caused conflicts with their family activities. Most reported actively working to create boundaries between the work they did for pay and work they did for their families. At the same time, however, they also found that housework was less of a struggle, since they could handle laundry and other tasks during breaks, and appreciated being able to participate in significant moments in the lives of their children. Similar benefits were reported by European women participating in three small studies reported by Bussing (1998). In a large sample of Canadians working for private employers, Higgins, Duxbury and Lee (1992) found that employees who reported greater flexibility in where and when work was done were better able to constructively balance their responsibilities at home and at work.

The few telework studies that have been published in academic journals have tended to focus on what draws people to telecommuting and on its relationship to

productivity, performance, and satisfaction with telecommuting. Gender does appear to have an impact. As noted by Hundley (2001) in his study comparing self-employed to organizationally employed workers, while men work for themselves to maximize earnings, women are attracted options that allow them to work at home and provide greater flexibility to facilitate caring for their homes and families. Workers with higher family responsibilities tend to gravitate to jobs that provide more autonomy and flexibility (Feldman and Gainey, 1997). Results indicate that women are more likely to choose to telecommute (Belanger, 1999), tend to be happier with their telecommuting experience (Raguram *et al.*, 2001; Belanger, 1999) and report higher productivity under telecommuting conditions than men (Hill *et al.*, 1998). However, telecommuters as a group are not necessarily more satisfied with their jobs than workers in traditional environments (Belanger, 1999). The little work that has been done in this field seems to indicate that having the option to work at home may lead to positive outcomes for both individuals and organizations, but this conclusion is by no means certain.

Research on family-to-work conflict is cautiously optimistic. Some 13% of volunteer telecommuters in a study of Canadian managers who worked at home one to three days a week (Duxbury, Higgins and Neufeld, 2001) commented that family interference with work was one of the major disadvantages of such an arrangement. However, a comparison of mean family-to-work conflict for the full sample just prior to and six moths after the introduction of telecommuting showed somewhat lower levels of conflict as measured by a five-item scale, while co-workers and co-workers experienced little change. The female telecommuters in Mirchirandi's (1998) study reported that the ability to work from home made it possible for them to continue working when problems

cropped up at home, such as a sick child, and it is easy to see how the option to telecommute could be helpful in reducing family-to-work conflict in such ways. On the other hand, however, telecommuters in a number of studies also reported that when they worked at home it was sometimes difficult to convince family members that they were busy and should not be interrupted (e.g. Mirchiradi, 1998; Hill *et al.*, 1998), which would be associated with increased family-to-work conflict.

Working from home also completely eliminates the stresses and time involved in commuting, which can be particularly difficult for workers with eldercare responsibilities or young families, unless they have a spouse or other family member close by who can respond to emergencies and participate in school activities. Many of the volunteer telecommuters in Duxbury, Higgins, and Neufeld's (2001) study were workers who lived far away from their places of work, and they particularly appreciated the benefits of greater flexibility in work location. More people selected this as a major advantage of working from home than any other option, with nearly half agreeing. Although working from home may make it more difficult to access social support from co-workers and supervisors, most telecommuters do not work from home everyday (Duxbury, Higgins and Neufeld, 2000; Mirchirandi, 1998), reducing concerns in that regard. Only 35 percent of the Canadian managers studied selected poor communication with co-workers as a negative result.

While burnout was not a variable in any of the studies located on telecommuting, it is expected that, because it may ameliorate conflicts between work and nonwork areas and significantly reduce stresses involved with commuting, greater flexibility in work location should be associated with less emotional exhaustion.

Dependent Care Assistance Contributes to a Sense of Support

Dependent care benefits represent one important type of resource organizations can offer their employees as way of helping them to manage conflicting demands on the job and home front.

As noted in the introduction, few employers offer direct assistance with dependent care by operating their own on-site care center or offering financial assistance with day care costs. However, many large companies offer access to information and referral services that help employees locate child and elder care providers, and about half give workers the option to set up dependent care spending accounts that allow them to pay for care with pre-tax dollars. Maternity leave, required by law, is quite common, but paternity leave is less so (Galinsky and Bond, 1998; Bond, Galinsky and Swanberg, 1998). Another major way employers can be of assistance is to find ways that workers can take time off to care for sick children without giving up pay or vacation time, such as by trading shifts or using some of their own sick days to care for dependents.

The availability and use of such dependent care support efforts are widely believed to help employees balance their work and family lives, and some research bears out that assertion. For example, Kossek and Nichols (1992) found that users of two moderately subsidized hospital child care centers reported fewer problems with care arrangements, had fewer care-related problems, and held more positive attitudes towards managing their child care responsibilities than employees of the same organization using other care options while on the waiting list. However, the one study on the effects of a corporate day care center to include a widely used measure of work/family conflict in its design found that, while use of a new facility that charged users the going market rate

was not associated with reduced work-to-family conflict, satisfaction with child care was (Goff, Mount and Jamison, 1990.) These results may have been affected by the nature of the sample. Almost twice as many nonuser as users responded to the relatively small study. Some 89% of users had spouses with full-time jobs, while only 40% of nonusers did; the user group was about half female, while men made up 69% of the nonuser group.

The number of formal family-supportive policies used was associated with less role strain and fewer strain-related health problems among single mothers in a study of parents of preschoolers (Greenberger *et al.*, 1989). However, among married mothers, while the number of policies used was related to fewer health symptoms, it was associated with greater role strain, possibly reflecting the fact that those taking advantage of the programs tended to have more bi-directional conflict and greater responsibilities. In a study comparing employees who used an eldercare referral service with those who didn't, Wagner and Hunt (1994) found that users reported more interference with work, but the authors note that this was likely because of higher demands that made them utilize the service in the first place rather than program ineffectiveness.

Studies that have looked at the availability of employer provided work/family policies with measures that incorporate dependent care support have found some evidence that they are helpful. Judge *et al.* (1994) found that the self-rated extensiveness of formal and informal work/life support available in their organizations was modestly associated with lower work-to-family conflict among male executives. This was the only study that specifically reported on the relationship between such benefits and family-to-work conflict; a small, statistically insignificant relationship was found, perhaps because to have achieved this level of success these executives probably had uniformly low levels

of such conflict (Kossek and Ozeki, 1998). However, a study analyzing the need and desire for a day care center at a university found that both male and female employees expressed an interest in such a service, and that potential users believed it would reduce tardiness and absence behavior (Mize and Freeman, 1989), both of which represent types of family-to-work conflict. Work/family benefit availability was negatively related to work-to-family conflict in a another study of managers and professionals (Thompson, Beauvais, and Lyness, (1999). Thomas and Ganster (1995), however, found no relationship between the availability of supportive policies, including child and elder care information and referral services and on-site day care, and work-to-family conflict or absence, one indicator of family-to-work conflict. They posited that this may have been because so few of their respondents had access to such services. Similarly, the availability and use of dependent care benefits were not significantly related to lower work-to-family conflict among employees from a technology firm, utilities firms, and a women's business association surveyed by Allen (2001), although greater flexibility and total benefits of both kinds used were. Although such benefits are provided with the intention of helping, then, research has not consistently shown that they reduce conflict.

No studies were located that dealt with the relationship between dependent care benefits and burnout. However, by easing difficulties associated with balancing work and family such benefits may reduce emotional exhaustion. Help in finding and paying for care for children and elders may ameliorate some of the emotional drain associated with burnout. It is also easy to conjecture that having children in a nearby corporate daycare center might afford working mothers an opportunity to spend break time visiting with

them, beneficial since, as noted earlier, children appear to serve as a resource that reduces burnout.

Because this study involves workers with widely varying work and family circumstances and how organizational efforts to provide a more family-supportive environment may affect them, policy availability rather than use will be studied. Simply creating and offering programs may have a beneficial effect on both work/family conflict and emotional exhaustion, even if they are not used, because just knowing that help is available if ever needed may reduce stress. For example, while working parents may seldom need a child-care information and referral service or take time off to care for sick children, knowing that such help is there can help eliminate worries about what to do if problems crop up. Previous research has shown that perceptions of support availability (not just actual support received) may act as a buffer between stressful events and psychological distress because stressful situations appear less threatening when one believes there is a support system available if needed (Lee and Ashforth, 1993).

Supportive Supervisors Can Promote More Positive Outcomes

Supervisor support has been one of the most researched work resources. COR theory holds that social support can be helpful for workers seeking to deal with multiple demands and conflicts, and working under a supportive supervisor appears to have a strong effect on stress-related outcomes, reducing negative consequences. A large number of studies of work/family conflict and burnout have found that supportive supervisors can make a difference in the attitudes and experiences of employees (e.g. Iverson, Olekalns, and Erwin, 1998; Leiter and Durup, 1996; Demerouti *et al.*, 2001; Galinsky, Bond and Friedman, 1996). Support from supervisors is often combined with

social support from other sources, including family, friends, and co-workers in the burnout literature. Lee and Ashforth (1996) report a mean weighted correlation with emotional exhaustion of -.26 for social support in 6 studies and -.31 for supervisor support in 13 studies. Supervisor support with work issues had a stronger relationship than all other resources except community bonds and met expectations; support from co-workers and family resources, in contrast, had weighted average correlations of -.18 and -.16. A recent study supports the notion that these relationships do not reflect simply personality differences. Demerouti *et al.* (2001) report a significant relationship between self-reported emotional exhaustion and researcher-rated supervisor support. While a few studies have failed to find relationships (e.g. Greenglass and Burke, 1989, for male educators; Ray and Miller, 1994, female health care workers) overall, supervisor support appears to be a resource that may buffer employees from some of the suffering associated with strong demands.

In studies that focus on the work/family interface, two types of measures have been used: those that capture simply support with work issues, like the scales most common in burnout research, and measures that ask about how supportive supervisors are about family-related concerns. In the literature, there is a strong expectation that both will be associated with less work/family conflict and emotional exhaustion, but stronger relationships to work/family conflict have been found for scales that include or focus on family-related support. Using general work-related measures of supervisor support, Frone, Yardley and Markel (1997) found a small but statistically significant reduction in work-to-family conflict, but not family-to-work conflict. Leiter and Durup (1996),

however, found work-related support from supervisors to be significantly correlated with lower levels of both, although the relationships were modest.

Most studies in this area have focused on family-related supervisor support or combined items measuring that with more general support. Kossek and Nichol (1992) found a moderate positive relationship between supervisor support with family conflicts and employee attitudes toward managing work and child care responsibilities. Galinsky *et al.* (1996) reported that supportive supervisors reduced work-family conflict in a large sample of randomly selected US workers. However, Ray and Miller (1994) reported no relationship between supportive supervisors and bidirectional work/family conflict. Shinn and colleagues (1989) found a modest ($r = .11$) between supervisors' support with family issues and job satisfaction, and an even smaller correlation with family distress. Using the same scale of supervisor support, Thomas and Ganster (1995) found that having supervisors who were understanding was associated with less work-to-family conflict among mainly female health care workers with children. Supervisors willing to listen to and help with family-related problems were also strongly associated with less bidirectional work/family conflict and pre-treatment absenteeism among production facility workers studied by Goff *et al.* (1990). In a study of managers with graduate degrees, Thompson *et al.* (1999) found that managerial support was associated with greater commitment, but the correlation with work-to-family conflict, while fairly large, was not statistically significant, likely because the sample used was relatively small. Studying a group of employees from a variety of organizations, Allen (2001) found that family-related supervisor support was associated with greater use of flexibility benefits and lower work-to-family conflict.

While there are exceptions in the literature, then, research seems to support the notion that supervisor support is a resource that may reduce work/family conflict and emotional exhaustion. The current study will focus on the effects of supervisor support with family issues, rather than overall or work-related support. There are three reasons for this. First, as is illustrated from the studies discussed above, support with family issues is likely to have the strongest effect on work/family conflict. Second, family-related support can also be viewed as a direct contributor to a family-supportive organizational environment, where the effects of supervisory support with work issues on the environment would be more indirect. Third, most of the previous research on emotional exhaustion has concentrated on the effects of supervisory support with work issues, finding evidence of a fairly strong relationship, but has not looked at other types of supervisor support. By examining the effects of supervisor supportiveness when family issues crop up, a relatively new area, the study will make a stronger contribution to the literature.

Family-Supportive Cultural Norms May Reduce Concerns

Supervisor support is not the only informal resource that an organizational environment can offer to help support workers coping with work and nonwork demands. Creating an organizational culture where people are open and understanding about work-family issues can have a direct positive effect on work/family conflicts. Such a culture can, for example, make parents or eldercare givers feel comfortable about calling to check on family members during work hours, which may actually allow them to concentrate better. It can also have an indirect effect by helping employees to feel better about using the organization's formal work/life policies. Formal policies that allow for

flextime or work at home are not likely to be used if they are not supported by the organizational culture and those directly above an employee who may want to use them (Galinsky, Bond, and Friedman, 1996; Kossek, Barber and Winters, 1999). Especially important are perceptions that employees who don't always put their work before their families will suffer in terms of career opportunities. Family-related concerns don't disappear simply because employers penalize workers for taking care of family responsibilities, whether than means taking time off for personal reasons, or using work time to take care of family needs. Thompson, Beauvais and Lyness (1999) identified negative career consequences associated with taking advantage of work/family programs or putting family before work as an important component of an organization's work/family culture. In their sample of managers, they found it was associated with higher levels of work-to-family conflict and an interest in quitting. Allen (2001) found that global perceptions of how family-supportive an employer is were strongly associated with reduced work-to-family conflict, higher job satisfaction, and less interest in quitting with demographic and family characteristics controlled. Galinsky *et al.* (1996) also reported that a supportive culture was associated with lower levels of conflict.

Although there are some gaps and inconsistencies, then, previous studies have found indications that both the supportiveness of the overall work environment and individual elements of that support may have positive effects. Particular indicators of a supportive environment – such as flexibility in work timing – may have different effects than, for example, supportive cultural norms. The two may work together to increase the overall sense of support, or an organization may rely on one to replace the effects of the other. This implies that examining the effects of the overall environment is just as

important as looking at the effects of these environment indicators separately. Therefore, both will be examined in this study.

H10a,b,c: Working in a more family-supportive environment (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) will be associated with lower levels of work-to-family conflict[a], family-to-work conflict[b] and emotional exhaustion[c].

Potential Moderators: Income Level and Single Parent Status

The next set of hypotheses deals with the question of whether workers with lower resources benefit more from a family-supportive organizational environment. In previous research, the COR model and similar approaches have been used to guide research aimed at identifying stressors that can increase the chance of negative stress-related outcomes, like work/family conflict and burnout, as well as supports that can help workers to deal with challenges. Considerable support has been found for the direct effects hypothesized in this study, as discussed in the previous sections. However, while COR theory has often used to help develop studies that focus on direct effects, it implies that combinations of demand and resource levels may also make a strong contribution towards stress-related outcomes. The best outcomes would be expected for people with few demands and many resources, the worst for those with many demands and few resources.

It is possible to consider overall demands and resources, but there are two reasons why it may not make sense to do so. First, while researchers can collect information on a range of resources and demands, they may miss some important to the individual's

situation. Even a carefully organized study will be limited in its ability to measure overall demands and resources. Second, such information is not likely to be available all to policymakers or employers who may want to use information from research to help their efforts to reduce employee stress. Therefore, to provide the most practical value it makes most sense to focus on specific demands and resources that are easy to identify and likely to have strong effects on the outcomes of interest.

The main focus of this study is to examine the effects of organizational efforts to be supportive of workers combining responsibilities at work and at home. Therefore, the study will examine the combination of working in a family-supportive work environment with resource/demand levels. As noted earlier, many combinations could be tested, but two personal demand and resource indicators have been identified as particularly likely to affect workers' need for a supportive work environment: single parent status and income level. Both groups are easily identifiable. While they cannot make discriminatory decisions based on such information, most employers are aware of whether their employees have children, whether they are married, and they know how much they earn at their current job. Results of this research, then, can be applied in practical situations if effects are found.

As noted earlier, workers in high-income families can afford high-quality help on the home front. If they happen to be employed by an organization that has a less family-supportive environment, they can often pay for alternative support in the form of more flexible or better child care and assistance with household tasks. Dependent care benefits, in particular, may be fairly easy for upper-income workers to replace, since they don't have a strong need for financial assistance with child care and are likely to be

interested in just a few top-notch dependent care assistance options rather than information on a wide range. Workers from lower-income families, on the other hand, are less able to pay for help and may find that organizational support – whether formal, like financial assistance with child care costs and access to services providing information on child care and elder care options, or informal, in the form of supportive cultures and supervisors – represents the main resource they have in managing the boundaries between work and family.

While potentially valuable, there is little research on how social class or income levels may affect the relationships between work and family characteristics and between the work-family interface and other outcomes (Voydanoff, 2002) and the potential effects of income or class as a moderator have been largely ignored by burnout researchers as well. One study that examined the moderating effects of class did so by comparing the relationships between stressors and involvement at home and at work with work-to-family and family-to-work conflict among blue- and white-collar workers. Although their model fit equally well for the two groups, some of the relationships were different. While job involvement was strongly associated with work-to-family conflict among white-collar workers, it was not related for blue-collar workers. Work-to-family conflict lead to family distress among blue-collar workers, but not white-collar workers (Frone *et al.*, 1992). The first finding may well be due to differences in the nature of work, as the researchers surmised, but the greater relationship between conflict and distress at home found among blue collar workers may be because they have fewer resources to buffer negative effects.

Some support for this view can also be drawn from a study of parents of preschoolers, reported in two different papers. For single mothers whose household income was considerably lower than that of married parents, the number of benefits used was associated with lower role strain and fewer stress-related health symptoms. Among married women, benefit use was associated with greater role strain, and among married men, it was associated with more stress-related health problems (Greenberger *et al.*, 1989). In a companion study, single mothers were more interested in changing jobs to get better benefits, and the benefit most desired was financial assistance with day care costs (Goldberg *et al.*, 1988).

Because they have so many alternative resources to draw on, employees with higher household incomes are less likely to experience strong positive effects from organizational efforts to create a supportive work environment. Executives in Judge *et al.*'s (1994) study, in fact, had nearly equal levels of work/family conflict in both directions whether they had a stay-at-home spouse or working partner, probably at least partly because it was easy for them to pay for alternative assistance to meet demands at home. An important caveat, however, is that organizational assistance not come with such a heavy price tag that only upper-income employees can afford to use it. This was illustrated by Lambert's (1995) study, which found that non-emergency family-oriented benefits that cost workers money were more likely to be used by higher income employees. Except for on-site daycare, which is often only partially subsidized by employers, all of the benefits selected for inclusion in this study do not involve substantial costs for workers.

It is predicted that the positive effects of having a family-supportive organizational environment will be strongest for employees from low-income households, less pronounced for employees from middle-income households, and weakest for employees from high-income households.

H11a,b,c: The positive effects of a family-supportive environment (more dependent care benefits, greater flexibility in work timing and location, greater supervisor support, and more family-supportive cultural norms) on work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c] will be strongest for employees from low-income households and weakest for employees from high-income households.

The growing number of single parents in the US represents a group with a high level of personal demands and no resource in the form of a helpful spouse. COR theory would predict that they are prime candidates for experiencing work-to-family conflict, family-to-work conflict, and emotional exhaustion, unless they have access to alternative resources that can help them make up for those they are missing.

Dependent care benefits, aside from eldercare assistance, are largely aimed at working parents and should be most helpful to those most actively involved in raising children. While flexibility in work time and location, supportive supervisors and a culture that is understanding about non-work interests may be beneficial for all workers, single parents are more likely have particularly high family demands, and may therefore experience more positive effects from assistance. For example, in a study of working parents with children under 12, Kossek (1990) found that single parents reported more care problems and care-related absences as well as less positive attitudes about their ability to balance work and child care than married parents.

Previous research in the area of dependent care benefits has looked at whether one's current use or likelihood of using them is associated with more positive job attitudes, with mixed results. Grover and Crooker (1995) and Roehling *et al.,* (2001) both found that their availability was associated with greater commitment and loyalty even among employees likely to have little use for such policies, although Roehling *et al.,* (2001) did note that women with school age children seemed particularly loyal in organizations with more dependent care support. A family-supportive work environment is likely to signal to workers that their employer cares about them, with positive results for employees of all types. However, the effects should be strongest among those who need such support the most: single parents.

H12a,b,c: The positive effects of a family-supportive (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) on work-to-family conflict[a], family-to-work conflict[b], and emotional exhaustion[c] will be stronger for single parents.

Work/Family Conflict as a Mediator

As previously noted, considerable research has found work-to-family conflict to be closely associated with emotional exhaustion, particularly among women (e.g. Leiter and Durup, 1996; Bacharach *et al.,* 1991; Etzion, 1988; Netemeyer *et al.,* 1996) and although the relationship is weaker, family-to-work conflict also appears to be correlated with emotional exhaustion (Netemeyer *et al.,* 1996; Leiter and Durup, 1996). Where the direction of effects is considered, researchers have generally conceptualized conflict between work and family as a precursor or predictor of burnout and have found evidence

to support this (e.g. Ayree, 1993; Greenglass and Burke, 1988). Dealing with conflicts between work and family can use up valuable resources and leave workers with less energy for work, contributing to the extreme levels of fatigue associated with emotional exhaustion. The single longitudinal study to look at this relationship found evidence of strong effects across time for work-to-family conflict and emotional exhaustion. Health care professional experiencing a high degree of work-to-family conflict were more likely to report higher levels of emotional exhaustion three months later. The effects appeared to be reciprocal; high levels of emotional exhaustion at time one were associated with greater work-to-family conflict after a three-month lag. Emotional exhaustion at the time of the first survey did not predict later levels of family-to-work conflict, nor was family-to-work conflict at time one a strong contributor to variance explained in emotional exhaustion at time two, although the two variables were moderately correlated within each time frame (Leiter and Durup, 1996). The strong links found between work-to-family conflict and emotional exhaustion are not surprising; both constructs involve work-related depletion of resources and insufficient reserves of energy. However, emotional exhaustion, as commonly measured, refers to an extreme state of fatigue that reduces the energy one brings to work. While work-to-family conflict may also involve a lack of energy, the focus is not on exhaustion experienced in the work domain, but on how one's participation in the family is affected by work demands. Correlations between the two variables reported in previous research support the view that the two are separate, but related, constructs; they range from –.03 for a group of female physicians in Israel (Izraeli, 1988) to .60 for a group of male American police officers (Burke *et al.,* 1979). A

recent meta-analysis estimated the mean weighted correlation for all published studies at .42 (Allen *et al.*, 2000).

Given the strong relationship between work/family conflict and emotional exhaustion, reducing one should logically lead to a reduction in the other. A family-supportive organizational environment should logically have its strongest impact on emotional exhaustion by reducing conflict between work and family. Although a family-supportive work environment may have some direct effect on emotional exhaustion by contributing to an overall sense of support, logically the policies, programs, and attitudes included in this concept are expected to be much more closely related to work/family conflict, which they were essentially developed to reduce.

There is very little previous research that considers work/family conflict as a mediator of the effects of organizational work/family policies and practices (Kossek and Ozeki, 1998). Thomas and Ganster, however, did find some support for their hypothesis that the work-to-family conflict and a sense of control of the work/family boundary mediated the relationship between work/family supports and various attitudinal and health-related outcomes. Mediation models were found to fit for the effects of flexible schedules and supervisor support on job satisfaction, depression, and stress-related health symptoms, but not for dependent care-related policies, which had little impact. Ayree (1993) found that, for women, work-parent and work-spouse conflict partially mediated the effects of work role and family stressors on burnout in a small sample of dual-career couples with preschoolers, but no significant mediation effects were found for schedule flexibility. There were no significant mediating effects for the fathers in the study.

To summarize, although previous empirical evidence is limited, logic suggests that a supportive work environment will impact emotional exhaustion by reducing conflict between work and family.

H13: Work-to-family conflict and family-to-work conflict will mediate the effects of a family-supportive environment (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) on emotional exhaustion.

CHAPTER 4: RESEARCH METHODS

Sample Background

The data to be analyzed come from the 1997 National Study of the Changing Workforce. For the study, commissioned by the Families and Work Institute with financial support from a group of large employers, Louis Harris and Associates surveyed a randomly selected sample of 3,552 U.S. working adults aged 18 to 64 by telephone during a three-month period in the spring and early summer of 1997. The estimated response rate was 52.9 percent of eligible households contacted.

Data Collection Procedures

Using a computer, 19,057 calls were made to a stratified unclustered random probability sample generated by random-digit-dial methods. A regional stratification variable was used to ensure that the sample distribution across regions would be proportional to the population. Eligibility to participate in the study was limited to working adults over 18 in the civilian labor force, living in the continental U.S. in a non-institutional residence (i.e. a household with a telephone). Of the numbers dialed, 8,149 were found to be non-residential or non-working numbers and 2,338 were determined to belong to households without a member who met these requirements. Eligibility could not be determined in 4,831 cases; 3,739 households were determined to have eligible members, and telephone interviews were completed for 3,552 of these. Since this analysis focuses on the effects of organizational supports provided by employers, it is inappropriate to include self-employed individuals. Therefore, the sample to be analyzed will consist of the 2,877 surveyed workers employed by others.

Interviewers followed a computerized protocol to ask respondents about various aspects of their lives at home and on the job, and coded the responses to all questions except for occupation, which was coded by the US Bureau of the Census using criteria developed for the 1990 Census.

Measures

Since this dissertation relies on pre-existing data, measures were constructed from questions that were asked of respondents. The survey author, the Families and Work Institute, does not list the sources for items; however, where possible, an effort has been made to determine how similar these measures are to others used in the literature. A complete list of measures, including all items and scales, can be found in Appendix A.

To develop scales, the survey instrument was examined for items related to the constructs of interest. Where multiple-item measures were possible and appropriate preliminary scales were created and factor analyses conducted. Tables reporting the factor analysis results summarized here are included in Appendix B. Because the large number of items used would make a single factor analysis difficult to interpret, two principal components factor analyses were conducted, one for the four resource scales (autonomy, flexibility, supervisor support, and cultural norms) and one for the three scales used to measure the dependent variables (work-to-family conflict, family-to-work conflict, and emotional exhaustion). Each set contained the items most likely to be interrelated due to the similarity of what was being measured; because the constructs were expected to be interrelated, an equimax rotation was used to make the solutions more interpretable. Four factors with eigenvalues over 1.0 were found in the first factor analysis. After dropping two items expected to measure flexibility due to ambiguous

factor loadings, the remaining items clearly loaded on four scales representing autonomy, flexibility, supervisor support with family issues, and supportive cultural norms. All factor loadings were above .50 and the four factors jointly accounted for 58.21 percent of the total variance. In the second analysis, as expected, three factors with eigenvalues over 1.0 emerged, representing work-to-family conflict, family-to-work conflict, and emotional exhaustion. After dropping one item from the work-to-family conflict scale that had ambiguous factor loadings, all items loaded clearly on a single scale and the three factors accounted for 66.15 percent of the total variance, supporting the contention that the three constructs are distinct. Following the factor analyses, alphas were calculated for each multi-item scale; all were above .70.

The final scales and other measures used are described in the next section.

Control Variables

Three important variables were identified that are not among the primary interests of this study but could affect results: occupation, industry, and race. Occupation and industry appear likely to be particularly important as work context has been found in previous research to affect burnout (Cordes and Dougherty, 1993) and work/family conflict (Frone *et al.*, 1993). While research provides evidence that burnout, particularly emotional exhaustion, may be experienced in a wide range of jobs, studies that have included workers in a variety of jobs have found occupation to have significant effects (e.g. Ayree, 1993). Possible implications of race are less clear; however, several studies have reported differences in the degree of burnout experienced by workers of different races (Lanaku and Scandur, 1996; Salyers and Bond, 2001). Other research supports the idea that race may combine with other resources to influence how stress is

experienced (Broman *et al.*, 1995). Research also indicates that there may be differences in familial roles, attitudes, values, and expectations among different racial groups (Broman, 1993; Orbuch and Custer, 1995). Given this, race, industry, and occupation will be included in the analysis as control variables.

Race. A single measure that directly asked respondents about their racial background was used to assess race. Although considerable effort was made to include respondents from a wide range of racial and ethnic backgrounds, the vast majority of study participants were either white or African American, and other racial groups (e.g. Asian, American Indian) were represented by such small groups that it would be difficult to conduct useful analyses. Race is not a major focus of the current study and there is no previous research that indicates differences associated with belonging to any of the racial/ethnic groups that were represented by a small number of individuals. Therefore, responses were coded into three categories, white, black, and other (including mixed) and appropriate dummy variables created for each.

Industry. Earlier research on burnout focused on workers in the service industry, based on the notion that working closely with people was a particularly strong drain on personal resources. According to earlier conceptualizations of burnout, similar effects were not expected for workers whose tasks focused on production-oriented tasks that involved working more with things than people. While more recent burnout research (e.g. Demerouti et al., 2001) appear to indicate that this phenomenon may be found in many different types of jobs, the key differentiation, theoretically, has been between production-oriented jobs that presumably involve less people work and jobs in the service industry, which by definition involve serving people. Therefore, industry was measured

by a single-item variable that classified workers as employed in either the service (coded 0) or goods-producing (coded 1) industry. Coding was done by the US Bureau of the Census based on information provided by the respondent.

Occupation. Even more important than the type of industry an employee works in is the kind of job he or she does. The respondents' occupation was measured using a single, straightforward item that asked participants what their occupation is, or what type of work they do. The responses were classified into seven categories of work: executive, administrative, and managerial; professional; technical; sales; administrative support; service; and production, operation, or repair. Coding was done by the US Bureau of the Census based on information provided by the respondent. For this analysis, a dummy variable was created to represent each occupational category, and scored (1) where applicable and (0) in all other cases.

Personal Demands and Resources

Sex. At the end of the interview, the interviewer determined the respondent's sex based on questions and responses. Men were coded as (1) and women as (2).

Elder/disabled care. Time spent caring for elders and disabled adults was measured by asking respondents whether they currently provide special attention or care for a disabled adult or someone 65 years or older. Those who said they did were asked much time per week is spent providing assistance in person (such as performing household work or providing transportation) and in other ways (such as arranging for care and handling finances). Time spent in all categories was converted to hours and summed for each respondent who provided this information; those who said they did not currently provide any such care were assigned a 0 for this variable.

Number of children 0-12, 13-18. The number of children the respondent had in each age group was determined by combining the results to a series of questions. Participants were asked if they had a child who was living with the respondent at least half of the year or for whom the respondent had guardianship for the full year (such as a child at boarding school). If the answer was yes, and the respondent was asked if any of these children were under 18. If so, the respondent was asked to give the age of each child who fit these qualifications. Children were divided into two age groups, 1-12 and 13-18, and responses were summed to determine the number of children in each age group.

While it is possible and potentially meaningful to compare the experiences of parents of children in a wide range of smaller age groups (e.g. infants, toddlers, preschoolers, upper and lower elementary students, driving and non-driving teenagers) such an approach would result in small numbers of study participants with children in each age group, particularly during efforts to examine each income group. Initial analyses indicated that this was the case. Regression equations were run with children in one, two, or several age groups. Although the strongest effects in these tests were found for the total number of children, theoretically it makes more sense to examine two groups of children, young ones requiring extensive care and older one who are more capable. Therefore, for this analysis two categories were selected to represent child-related demands, one for the number of children under 13 and one for the number of children in their teens. Division was made at this point because children under 13 – whether infants or elementary students – generally require constant supervision; when they are not in school, parents must either be at home with them or make arrangements with babysitters,

day care centers, family members, or others to ensure that they are properly supervised. Teenagers also require parental support, but are generally considered more capable of caring for themselves and even acting as caregivers for younger children. Many are very busy with their own jobs and activities and they can often even handle their own transportation. As such, they are considerably more independent and may place different types of demands on parents, making it more logical to consider them separately rather that combine them with younger children.

Partner. Whether the respondent was living with partner was assessed by asking respondents whether they were married, whether they were living with their spouse, and whether they were currently living with someone as a couple. Those who were living with their spouse or living with someone as a couple were coded as (1), all others were coded as (0).

Familial care. For parents, whether most or all needed care for the youngest child was provided by a family member was again assessed through answers to a series of straightforward questions about whether some or all needed child care outside school hours was provided by the respondent's partner. Respondents without a partner who provided the majority of care were also asked what the main source of child care they relied on was – a day care center, older sibling, other relative, etc. Responses were combined and recoded so that respondents who had a family member that provided most or all needed care for their youngest child were coded as (1). All others, including those who did not have children, were coded as (0).

Household income level. Household income for 1996 (the year prior to the study) was also assessed by directly asking respondents to estimate their household income, and

by questions that asked them to estimate the amount, within $10,000 ranges, for the ten percent who could not provide a more accurate figure. It was deemed more appropriate to turn to a reliable external source for income classifications than to divide the respondents in the data set into three equal groups for two reasons. First, survey response rates are likely higher for middle-class families than members of the working poor (who are less likely to own telephones) or wealthy individuals (who can pay to have their calls screened or answered for them). Second, because income is fairly normally distributed, more respondents fall into the middle than at the extremes, so dividing the sample into thirds would have the effect of including individuals who are still very close the mean income level in the upper and lower income groups.

An alternative approach would be to define the groups based on anticipated costs – e.g., the high-income group should earn enough to hire a housekeeper and/or full-time nanny. However, it was determined that, due to differences in prices across the US, it would be unreasonably complex to estimate the cost of high- and low-end assistance with child care and household chores.

Therefore, income level was derived by using 1996 household income to place the respondents into three categories created based on US Census data for the year. Those whose household income fell into the lower 40% of households (incomes below $27,760) were classed as lower income, those with incomes in the next 40% ($27,761-$68,015) were classified middle income, and those whose incomes placed them in the top 20% of households (above $68,015) were classified as higher income. Approximately one-quarter of the sample fell into the lower-income group, one-half into the middle-income, and one-quarter into the higher-income group. The cutoffs were viewed as generally

appropriate as, below $28,000, the cost of day care for a single child represents a considerable proportion of household income. At the middle-income level, such expenses, while high, are still manageable. Families earning above $68,000 should be able to absorb such costs without much sacrifice.

Age. Respondents were asked to give the month and year of their birth; this information was used to calculate their precise age in years at the time of the survey.

Work-Related Demands and Resources

Work hours. The total number of hours worked a week was measured by asking respondents how many hours a week they usually do work, both paid and unpaid, at all jobs. Results were summed by the computer and participants were asked to confirm that the figures provided were accurate.

Irregular schedule. Respondents were given a range of work schedule choices (e.g. regular daytime, split shift, etc.) and asked to choose the one that most accurately fit their own. While there was a wide range of non-regular schedule options given, there is no theoretical reason to expect strong differences in the study outcomes between them. However, working a regular daytime shift is likely to be associated with less work/family conflict because it is generally most congruent with the schedules of children and other family members, fitting with the most common hours for day care, school, work, and other activities. Therefore, responses were recoded so that a regular daytime schedule was coded as (0) and other (irregular) arrangements were coded as (1).

Autonomy. Work autonomy was measured with the average score on a three-item scale used in the 1977 Quality of Employment Survey (Quinn and Staines, 1979) and subsequent research. A sample item from the autonomy scale reads: "I have a lot of say

about what happens on my job." Respondents were asked if they strongly agreed (1) agreed (2), disagreed (3) or strongly disagreed (4). Responses were reversed and recoded so that a higher score on the 1-4 likert scale indicates greater autonomy. Coefficient alpha for the scale was .70.

Tenure. Tenure was measured by a single item that asked respondents how long they had been working for their current employer. All responses were converted to years.

Organizational Work/Family Environment

Time flexibility. Flexibility in the timing of work was measured using three items to create a scale that addresses the degree to which the respondent can adjust working time, including control over scheduling work hours and the degree of flexibility in starting and finishing times. A sample item reads: "Overall, how much control would you say you have in scheduling your work hours – complete control, a lot, some, very little, or none?" Items were reverse coded as necessary to ensure that a higher scores indicated greater flexibility, and responses were averaged to create a scale ranging from 0 (low flexibility) to 4 (high flexibility). Alpha for the scale was .72.

Location flexibility. The degree to which employees had flexibility in where they did their work was measured by combining responses to three items that asked how many regularly scheduled hours employees worked from home and, for those who answered none, whether they thought it might be possible to do their work from home and, for those who answered yes, whether they would be allowed to do so if they asked. Those who currently worked at home or who would be allowed to do so were coded 1, those who didn't and thought they would or could not, were coded 0, so that a higher score indicates greater flexibility.

Dependent care benefits. Eight formal dependent care assistance policies were selected for inclusion in the study based on the questions asked of respondents. They are: maternity leave, paternity leave, ability to take time off work to care for a sick child without losing pay or vacation days, child care information and referral services, eldercare information and referral services, pre-tax dependent care spending accounts, on- or near-site daycare, and direct financial assistance with child care. Each is measured by a single item asking the respondent whether his or her employer offers the benefit. An example: "Does your employer have a program or service that helps employees find child care if they need it, or not?" Responses to the eight items were coded 1 (yes, available) or 0 (not available) and summed to create a single index of benefit availability that ranged from 0 (no benefits available) to 8 (all of these benefits available). This approach is similar to those used in other studies in this area (e.g. Grover and Crooker, 1995; Thompson *et al.*, 1998; Allen, 2001).

Supervisor support was measured using the average of responses to five items indicating, on a scale of 1-4, how supportive the main person the respondent reports to is in terms of work/family issues (e.g. "My supervisor is understanding when I talk about personal or family issues that affect my work"). A higher score implies greater agreement that one's supervisor is supportive. The scale, which had an alpha of .84, is similar to one used by Thomas and Ganster (1995) to measure supervisor support.

Family-supportive cultural norms are measured with a five-item scale (alpha .76) where a higher score implies greater agreement that one's organization is sympathetic and does not penalize employees who put families first. A sample item: "At my place of

employment, employees who put their family or personal needs ahead of their jobs are not looked on favorably (reverse scored)." Responses range from 1-4.

Total work environment. Because understanding how much the overall environment experienced by a worker affects the outcome variables may be more important than simply examining the indicators individually, a summary variable combining all five measures of the work environment was created. To ensure that the four aspects of a supportive environment included in this study – flexibility, benefit availability, supervisor support, and cultural norms – were all given equal weight, the question on location flexibility was averaged with those of the timing flexibility scale and the mean of the five items was calculated, resulting in a scale range maximum of four. The benefits index was divided by two, making the maximum possible value four. No changes were made to the supervisor support or cultural norm scales, which both had four as the maximum possible value. The four measures were then summed to create an estimate of overall organizational support, which ranged from 1-16.

Dependent Variables

Work-to-family conflict was measured using the mean response to four items to create a scale (alpha .81) with a range of 1-5. A higher score reflects more experience with conflicts over the past three months. A sample item: "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? Would you say very often, often, sometimes, rarely, or never?"

Family-to-work conflict was measured using a similar five-item scale (alpha .85), with a higher score indicating more frequent experience with conflict in the preceding three months. "How often has your family or personal life kept you from doing as good a

job at work as you could?" is one item included. Both work/family conflict scales contain items similar in content to those in other scales commonly used to measure work/family conflict and spillover (e.g. Koppelman, Greehaus and Connolly, Gutek, Searle and Klepa, 1991).

Emotional exhaustion was measured using four items from the emotional exhaustion component of the Maslach Burnout Inventory (Maslach and Jackson, 1981), the scale most commonly used in this field. A sample item: "How often during the past three months have you felt used up at the end of the workday?" Alpha for the abbreviated 4-item scale was .87, which is comparable to reliability estimates reported in other studies for the full 8-item scale (Lee and Ashforth (1986) report a weighted mean reliability of .86 for 47 studies).

Data Analysis

The main goals of this study were to estimate the effects of different demands and resources on the three outcomes – work-to-family conflict, family-to-work conflict, and emotional exhaustion – and to examine in greater detail any differences in the impact of a supportive work environment for individuals with fewer personal resources, namely, single parents and those from lower income households. The emphasis was on the effects of the organizational environment indicators within the context of other personal and work-related resources and demands rather than the overall fit of the model as a whole for each demographic group. Therefore, the effects of the independent variables on the set of dependent variables as outlined previously in the hypotheses section were estimated using hierarchical multiple regression. For each equation, the dependent variable (work-to-family conflict, family-to-work conflict, and emotional exhaustion)

was regressed on the full set of predictors. In all cases, the first three steps were identical. The control variables (dummies representing race, industry and occupation) were entered at the first step. Because it had the most variety and least clear implications, the "other" racial group was used as the omitted category for race. "Service" was used as the omitted category for occupation because many of the occupations that have been studied in the burnout and work/family literature fall within it.

At the second step, variables representing personal demands and resources were entered. At the third step, job-related demands and resources were entered. Variables representing organizational efforts to create a supportive work environment – flexibility in work time and location, dependent care benefits available, supervisor support, and cultural norms – were entered at the fourth step. Separate regression equations were conducted to examine the effects of the overall environment and the indicators separately. Steps 1-3 remained the same, but in the first regression equation for each dependent variable (labeled equation a Tables 2-4), the total environment summary variable was entered at step four. In the second regression equation for each dependent variable, the individual environment indicators were entered together at step four (labeled equation b in Tables 2 and 3, which report the results for work-to-family and family-to-work conflict regressions, and equation c in Table 4, which reports the results for emotional exhaustion.).

Two dummy variables were also included at step four in all regression equations to control for the effects of missing data. There were a number of missing responses for some of the dependent care assistance scale items. The question about being able to miss work to care for a sick child without losing pay or vacation time was only asked of

parents with children under 18, resulting in missing data for all nonparents on this issue. Many respondents appeared to be unclear about paternity leave, also, as that item was missing for 519 respondents. However, these represent important independent variables for the study, and many of these people reported information on other dependent care benefits. In order to retain them in the analysis, missing data was replaced with the mean for the sample for that benefit and the results were combined for the index. The effects of replacing the missing data on the question regarding time off to care for sick children are already controlled for because having children under 18 is part of the regression equation. However, to control for any common source of variance in non-response to other items, I created a dummy variable that coded those noncontingently missing responses in the index as 1 and those without missing data as 0. This dummy was included in the regression analysis at the same step as the dependent care index to control for any bias that might be associated with not providing answers. Such a procedure is recommended by Cohen and Cohen (1983) as a way to keep individuals who did not provide information on all included variables in the analysis without affecting estimates of relationships. As noted by Cohen and Cohen (1983), such an approach also makes it possible to examine the likelihood that individuals missing data on a particular scale may be different in some systematic way and to identify the effects.

Similarly, a large number of study participants were not asked about supervisor supportiveness because they could not identify a single individual who they reported to as a supervisor. Again, missing data for this scale was replaced by the mean and a dummy variable created. Those who did not have a supervisor and thus did not respond to these questions were coded as a 1 and all others as a 0. In all other cases where data was

missing, listwise deletion was used. This approach is similar to the one adopted by Roehling *et al.* (2001) in their analysis of data from the 1992 NSCW and again follows the recommendations of Cohen and Cohen (1983). It allows us to include as many individuals as possible in the analysis and examine the effects of not having a supervisor.

The moderated relationships predicted involving workers from low-income households and single parents were tested by entering the interactions predicted by the hypotheses (income level x environment, and single parent x environment) into the regression equations at step 5. In the first regression equation for each dependent variable (labeled equation a in Tables 2,3, and 4, where results are reported), interactions between the total environment summary measure and the two moderators – income and single parent status – were entered at this fifth and final step. In the second regression equation for each dependent variable (labeled equation b in Tables 2 and 3, where the work-to-family and family-to-work regressions are reported), interactions were tested separately for each of the five indicators – flexibility in work time, flexibility in work location, dependent care benefits, supervisor support with family issues, and cultural norms.

In addition, the effects of income level were regarded as most important to increasing understanding in the field, so these were also illustrated by running separate regression equations for each of the three income groups where significant interaction effects were found. For each income group, the effects of the total environment summary variable and the individual impact of each environment indicator were again examined by estimating two separate regression equations, again, labeled a (total environment summary variable) and b (five individual environment indicators) in the results tables.

In the case of emotional exhaustion, hypothesis 13 predicts that work-to-family conflict and family-to-work conflict may mediate the relationship between organizational efforts to create a supportive work environment and the dependent variable. This was examined in an additional pair of regression equations for that dependent variable. In the first (labeled equation b in Table 4, where the results for emotional exhaustion were reported), the total environment variable was entered at step four and the two conflict variables were entered at step five. In the second, (labeled equation c in Table 4) the individual environment indicators were entered at step four and the two conflict variables were again entered at step five.

Criteria established by James and Brett (1984) were used to determine if mediation effects exist. They specify that, first, the independent variable must be significantly related to the mediator variable. Second, the mediator variable must be significantly related to the dependent variable. Third, when the influence of the mediator variable is held constant, the effect of the independent variable on the dependent variable should be nonsignificant. To test for the first two criteria, partial correlations for organizational work/life supports controlling for the influence of other predictors were examined. Because several significant relationships were found, emotional exhaustion was again regressed on the set of predictors, this time with the conflict and spillover variables included in the equation in a fifth and final step. According to James and Brett (1984) the degree to which work-to-family and family-to-work conflict mediate the effects of job characteristics is estimated by assessing the degree of change in the beta-weights after these additional variables are included. If they become non-significant, a full mediation model would be supported. Significant change can be interpreted as

partial mediation, and no real change is an indication that the effects are felt directly and not mediated by conflict between work and family.

CHAPTER 5: RESULTS

Outline of the Chapter

The results of the study are summarized in Tables 1-5. The means, standard deviations, and intercorrelations between the main study variables are reported in Table 1. This chapter will begin with an overview of the sample and descriptive statistics for the main variables, followed by an examination of the hypotheses and results. Hypotheses 1-10 dealt with the direct effects of the personal and organizational demand and resource measures on the dependent variables: work-to-family conflict, family-to-work conflict, and emotional exhaustion. They were tested by examining the simple Pearson correlations and the standardized regression coefficients for the full sample. Hypotheses 10-13 dealt with mediating and moderating effects. The interactions were examined in two ways, first, by including them in the regression equations for the full sample, and second, by running separate regressions for the three income levels where significant interactions were found. Tables 2, 3, and 4 show the results of the hierarchical regression analyses for the three dependent variables, both for the full sample and for the lower, middle, and high income groups separately. A summary of the hypotheses and study findings can be found near the end of this chapter in Table 5. Although the discussion of the results of the other hypotheses will focus on the regression analyses for the full sample, where interesting differences in these relationships were found between the income groups, they will also be noted.

Table 1: Means, Standard Deviations and Intercorrelations

	Mean	S.D.	1	2	3	4	5	6
1. Manager	.16	.37						
2. Professional	.18	.39	-.20**					
3. Technical	.05	.22	-.10**	-.11**				
4. Sales	.11	.31	-.15**	-.16**	-.08**			
5. Admin.	.16	.36	-.17**	-.20**	-.10**	-.15**		
6. Service	.11	.31	-.15**	-.16**	-.08	-.12**	-.15**	
7. Prod/op/repair	.24	.43	-.25**	-.27**	-.13**	-.19**	-.24**	-.20**
8. Industry[1]	1.78	.42	.00	.12**	.04*	.14**	.13**	.18**
9. White	.80	.41	.05*	.07**	.00	.01	-.02	-.08**
10. Black	.12	.32	-.04*	-.06**	.01	-.02	.01	.09**
11. Other race	.09	.28	-.02	-.03	-.01	.02	.02	.01
12. Sex	1.52	.50	-.02	.07**	.03	.02	.26**	.06**
13. Eld/oth care[2]	1.75	6.52	-.05**	-.01	.00	-.04*	.01	.07**
14. # kids < 13	.58	.91	-.01	-.02	-.01	-.01	-.02	-.01
15. # kids 13-18	.25	.57	.00	.00	.00	.00	-.05*	.00
16. Partner	.61	.49	.05**	.02	-.02	-.04*	-.02	-.06**
17. Family care[3]	.23	.42	-.03	-.02	-.06**	.02	-.05*	.03
18. Age	40.18	11.9	.06**	.03	-.03	-.04*	.04*	-.04*
19. Income level	2.0	.71	.19**	.17**	.02	-.01	-.04*	-.19**
20.Work hrs/wk	45.97	13.6	.13**	.06**	-.02	-.05*	-.14**	-.13**
21. Irreg. sched.	.28	.45	-.10**	-.10**	-.04*	.11**	-.10**	.17**
22. Autonomy	3.03	.74	.18**	.08**	-.04*	.01	-.06**	-.07**
23. Tenure	7.54	8.15	.08**	.03	.02	-.09**	-.01	-.08**
24. Flex time	1.55	1.38	.22**	.07**	.01	.08**	-.07**	-.05**
25. Flex place	.25	.43	.15**	.15**	.02	.06**	-.08**	-.07**
26. Dep. care[4]	3.22	1.48	.09**	.10**	.06**	-.10**	.03	-.06**
27. Sup. support	3.34	.66	.05*	.03	-.03	.03	.04	-.03
28. Cult. norms	2.96	.73	.11**	.07**	.03	.02	.02	-.08**
29. Tot. env.[5]	9.33	2.22	.21**	.13**	.03	.03	-.02	-.09**
30. WFC[6]	2.92	1.04	.04*	.05*	.01	-.02	-.02	-.06**
31. FWC[7]	1.93	.70	.02	.09**	-.03	-.03	-.02	-.03
32. EE[8]	2.97	1.04	.00	.03	-.01	-.02	-.01	-.01

Pearson zero-order correlations between major study variables. 1. Goods-producing =1, service =2.
2. Hours per week caring for elders and disabled adults (Continued on the next page)

Table 1: Means, Standard Deviations and Intercorrelations (Continued)

	7	8	9	10	11	12	13	14	15
1. Manager									
2. Professional									
3. Technical									
4. Sales									
5. Admin.									
6. Service									
7. Prod/op/rep									
8. Industry	-.47**								
9. White	-.03	-.02							
10. Black	.03	.03	-.72**						
11. Other race	.01	-.01	-.61**	-.11**					
12. Sex	-.34**	.23**	-.03	.07**	-.03				
13. Eld/oth care	.02	.01	-.05**	.07**	.00	.06**			
14. # kids < 13	.06**	-.05*	-.06**	.04*	.05*	-.06**	-.07**		
15. # kids 13-18	.02	.00	-.03	.06**	-.02	.03	.03	.01	
16. Partner	.03	-.07**	.09**	-.10**	-.02	-.10**	-.02	-.25**	.12**
17. Family care	.07	-.07**	-.06**	.03	.06**	-.12**	-.06**	.67**	.06**
18. Age	-.04*	-.01	.10**	-.03	-.10**	.07**	.08**	-.24**	.09**
19. Income	-.15**	-.01	.13**	-.13**	-.03	-.11**	-.04*	.02	.05*
20.Work hrs/wk	.10**	-.11**	-.02	.02	.00	-.26**	-.01	.06**	-.01
21. Irreg. sched.	.07**	.02	-.03	.02	.02	-.07**	.02	.00	-.03
22. Autonomy	-.11**	.01	.08**	-.12**	.02	-.09**	-.03	.00	.00
23. Tenure	.03	-.07**	.05**	.00	-.07**	-.05**	.01	-.10**	.02
24. Flex time	-.22**	.07**	.06**	-.07**	-.01	-.07**	-.03	-.03	-.01
25. Flex place	-.19**	.09**	.01	-.01	.00	-.03	-.01	.04*	.02
26. Dep. care	-.11**	.09**	-.05*	.04*	.02	-.02	-.02	-.01	-.01
27. Sup. support	-.09**	.06**	.06**	-.05*	-.02	.03	-.01	-.03	.02
28. Cult. norms	-.14**	.03	.13**	-.08**	-.09**	.06**	-.05*	.01	.00
29. Tot. env.	-.25**	.11**	.07**	-.06**	-.04	-.01	-.04*	-.01	.00
30. WFC	-.01	.00	.00	-.01	.02	.04	.02	.13**	.07**
31. FWC	-.05**	.00	-.02	-.01	.04	.03	.04	.11**	.04*
32. EE	-.01	.01	-.02	.02	.01	.07**	.01	.04*	.00

3. Most child care provided by a family member 4. Number of dependent care benefits 5. Total environment 6. WFC = work-to-family conflict 7. FWC = family-to-work conflict 8. EE = emotional exhaustion. Due to listwise deletion for missing data, Ns range from 2,553 to 2,877. * significant at the .05 level. ** significant at the .01 level.

Table 1: Means, Standard Deviations and Intercorrelations (Continued)

	16	17	18	19	20	21	22	23
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner								
17. Family care	.27**							
18. Age	.14**	-.18**						
19. Income level	.37**	.01	.11**					
20.Work hrs/wk	.04	.03	-.04	.18**				
21. Irreg. sched.	-.10**	.04	-.14**	-.10**	.02			
22. Autonomy	.08**	.02	.07**	.15**	.08**	-.05**	(.70)	
23. Tenure	.13**	-.08**	.48**	.23**	.09**	-.10**	.06**	
24. Flex time	.04*	-.01	-.01	.21**	.05*	.02	.38**	.03
25. Flex place	.05*	.04	-.04**	.16**	.12**	-.01	.21**	.00
26. Dep. care	.02	-.02	-.01	.16**	.09**	-.03	.16**	.12**
27. Sup. support	.05*	-.02	.06**	.03	-.04*	-.06**	.31**	.00
28. Cult. norms	.04*	.01	.02	.13**	-.04*	-.08**	.27**	-.01
29. Tot. env.	.06**	-.01	.01	.23**	.04	-.04	.45**	.03
30. WFC	.06**	.09**	-.10**	.07**	.24**	.07**	-.14**	-.04*
31. FWC	.01	.06**	-.06**	.05**	.07**	.00	-.02	.01
32. EE	-.04	.02	-.12**	.02	.19**	.02	-.23**	-.04*

Table 1: Means, Standard Deviations and Intercorrelations (Continued)

	24	25	26	27	28	29	30	31	32
1. Manager									
2. Professional									
3. Technical									
4. Sales									
5. Admin.									
6. Service									
7. Prod/op/rep									
8. Industry									
9. White									
10. Black									
11. Other race									
12. Sex									
13. Eld/oth care									
14. # kids < 13									
15. # kids 13-18									
16. Partner									
17. Family care									
18. Age									
19. Income									
20.Work hrs/wk									
21. Irreg. sched.									
22. Autonomy									
23. Tenure									
24. Flex time	(.72)								
25. Flex place	.30**								
26. Dep. care	.19**	.11**							
27. Sup. support	.19**	.08**	.20**	(.89)					
28. Cult. norms	.25**	.09**	.18**	.43**	(.76)				
29. Tot. env.	.72**	.42**	.56**	.60**	.65**				
30. WFC	-.09**	.05*	-.10**	-.23**	-.26**	-.23**	(.81)		
31. FWC	.00	.12**	.01	-.11**	-.18**	-.08**	.42**	(.85)	
32. EE	-.14**	.02	-.04*	-.31**	-.28**	-.29**	.59**	.35**	(.87)

Table 2: Results of Multiple Regression Analysis – Work-to-Family Conflict

Predictors	Full Sample						
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 5a**	**Step 4b**	**Step 5b**
Managerial/executive	.09**	.09	.09**	.13**	.12**	.12**	.12**
Professional	.09**	.08*	.08**	.11**	.11**	.10**	.10**
Technical	.06*	.05	.05*	.07**	.07**	.06**	.07**
Sales	.04	.04	.04	.05*	.05*	.05	.05
Administrative	.05	.04	.06*	.07**	.08**	.08**	.08**
Production/operator/repair	.07	.08*	.04	.02	.02	.04	.04
Industry	.00	.00	.00	.01	.02	.01	.01
White	-.01	.00	.00	.01	.02	.03	.03
Black	-.01	.00	-.04	-.03	.01	-.02	-.02
Step 2 Pers. Dem. & Res.							
Sex		.07**	.11**	.10**	.10**	.12**	.12**
Elder/disabled care		.03	.02	.02	.02	.01	.01
# kids <13		.11**	.09**	.08**	.08**	.08**	.08**
# kids 13-18		.06**	.07**	.06**	.06**	.06**	.06**
Partner		.02	.05*	.05*	.05*	.05*	.05*
Family child care		-.01	.00	.00	.00	.00	.00
Age		-.08**	-.05*	-.06**	-.07**	-.06*	-.06**
Income level		.05*	.03	.06**	-.14	.05*	-.08**
Step 3 Work Dem. & Res.							
Work hours			.26**	.25**	.25**	.24**	.24**
Irregular schedule			.09**	.10**	.09**	.09**	.08**
Autonomy			-.17**	-.07**	-.07**	-.07**	-.07**
Tenure			-.02	-.02	-.02	-.02	-.03
Step 4 Eq. a Tot. Env.							
Total environment				-.26**	-.40**		
No supervisor				-.01	-.01		
Missing dependent care				.00	.00		
Step 5 Eq. a Interaction							
Environment x income					.27*		
Step 4 Eq. b Indicators							
Flex time						-.05*	-.05*
Flex place						.04*	.04*
Dependent care benefits						-.07**	-.24**
Supervisor support						-.10**	-.10**
Cultural norms						-.20**	-.20**
No supervisor						-.02	-.02
Missing dependent care						-.02	.00
Step 5 Eq. b Interaction							
Dependent care x income							.23**
Model Summary							
N	2,796	2,611	2,571	2,453	2,453	2,453	2,453
R	.08	.19	.36	.42	.43	.45	.46
R^2	.01	.04	.13	.18	.18	.20	.21
Adj R^2	.00	.03	.12	.17	.17	.20	.20
Change R^2	.01	.03**	.09**	.05**	.00**	.08**	.00**

Notes: Standardized regression coefficients shown. Two equations were estimated; steps 1-3 were identical in both. Service and other race were the omitted categories for occupation and race. In equation a, the effects of the total environment variable and its interaction with income level were estimated at steps 4 and 5. In equation b, the effects of each environment indicator were examined separately at step 4. At step 5, the interaction of each with income was tested separately; the only significant interaction found is reported here in the step 5b column. * significant at .05 level ** significant at .01 level

Table 2: Results of Multiple Regression Analysis – Work-to-Family Conflict (Continued)

Predictors		Lower	Income	Sample	
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 4b**
Managerial/executive	.01	.00	.03	.05	.04
Professional	.00	.01	.03	.07	.06
Technical	.07	.06	.08	.10**	.10**
Sales	.02	.03	.02	.04	.03
Administrative	.02	.03	.03	.04	.05
Production/operator/repair	.09	.07	.04	.05	.08
Industry	.01	.00	.00	.02	.03
White	.02	.06	.03	.06	.06
Black	-.01	.00	-.04	-.01	-.01
Step 2 Personal Demands & Resources					
Sex		-.01	.01	.03	.05
Elder/disabled care		.01	.01	.00	-.01
# kids <13		.04	.03	.01	.01
# kids 13-18		.09*	.07	.05	.04
Partner		.03	.04	.04	.03
Family child care		.05	.08	.09	.08
Age		-.11**	-.08	-.10*	-.09*
Step 3 Work Demands & Resources					
Work hours			.20**	.18**	.18**
Irregular schedule			.14**	.13**	.12**
Autonomy			-.22**	-.10**	-.12**
Tenure			.05	.05	.06
Step 4 Equation a Total Environment					
Total environment				-.29**	
No supervisor				-.02	
Missing dependent care				.01	
Step 4 Equation b Environment Indicators					
Flex time					-.02
Flex place					.02
Dependent care benefits					-.16**
Supervisor support					-.13**
Cultural norms					-.16**
No supervisor					-.02
Missing dependent care					.01
Model Summary					
N	708	698	687	643	643
R	.10	.20	.37	.45	.47
R^2	.01	.04	.14	.20	.22
Adj R^2	-.00	.01	.11	.17	.19
Change R^2	.01	.03**	.10**	.06**	.09**

Notes: Figures are standardized regression coefficients. Two regression equations were estimated; steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In equation a, the effects of the total environment measure were estimated at step 4 and are reported in column 4a. In equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b. * significant at .05 level ** significant at .01 level

Table 2: Results of Multiple Regression Analysis – Work-to-Family Conflict (Continued)

Predictors		Middle	Income	Sample	
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 4b**
Managerial/executive	.06	.08	.09*	.12**	.10*
Professional	.04	.05	.07	.09	.08
Technical	.04	.04	.05	.06	.05
Sales	.07	.08	.07	.07	.06
Administrative	.06	.05	.09*	.10	.09
Production/operator/repair	.04	.07	.06	.03	.04
Industry	-.01	.00	.00	.01	.00
White	.00	.00	.00	.01	.02
Black	.03	.02	-.03	-.01	.02
Step 2 Personal Demands & Resources					
Sex		.10**	.16**	.15**	.16**
Elder/disabled care		.04	.03	.03	.03
# kids <13		.15**	.12**	.11**	.12**
# kids 13-18		.09**	.10**	.11**	.10**
Partner		.01	.04	.05	.05
Family child care		-.05	-.02	-.03	-.02
Age		-.06*	-.03	-.04	-.04
Step 3 Work Demands & Resources					
Work hours			.28**	.27**	.26**
Irregular schedule			.09**	.09*	.08**
Autonomy			-.16**	-.07*	-.07**
Tenure			-.05	-.06*	-.07**
Step 4 Equation a Total Environment					
Total environment				-.24**	
No supervisor				.02	
Missing dependent care				-.03	
Step 4 Equation b Environment Indicators					
Flex time					-.05
Flex place					.04
Dependent care benefits					-.06*
Supervisor support					-.07**
Cultural norms					-.22**
No supervisor					.01
Missing dependent care					-.03
Model Summary					
N	1,299	1,288	1,268	1,212	1,212
R	.07	.21	.38	.44	.47
R^2	.00	.04	.15	.20	.22
Adj R^2	.00	.03	.13	.18	.21
Change R^2	.00	.04**	.11**	.05**	.08**

Notes: Figures are standardized regression coefficients. Two equations were estimated; steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In equation a, the effects of the total environment measure were estimated at step 4 and are reported in column 4a. In equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b. * significant at .05 level ** significant at .01 level

Table 2: Results of Multiple Regression Analysis – Work-to-Family Conflict (Continued)

Predictors		Upper	Income	Sample	
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 4b**
Managerial/executive	.19*	.23**	.15	.21*	.10*
Professional	.20*	.24**	.17	.19*	.08
Technical	.06	.07	.05	.08	.05
Sales	-.01	.01	.00	.02	.06
Administrative	.06	.07	.06	.07	.09*
Production/operator/repair	.07	.10	.00	-.04	.04
Industry	.03	.01	.03	.03	.00
White	-.06	-.03	-.02	-.02	.02
Black	-.05	-.05	-.05	-.06	-.02
Step 2 Personal Demands & Resources					
Sex		.07	.11*	.09*	.10*
Elder/disabled care		.05	.03	.03	.02
# kids <13		.08	.09	.09*	.08
# kids 13-18		.00	.01	.00	.00
Partner		.00	.01	.00	.01
Family child care		.03	.00	.01	-.01
Age		-.10*	-.09	-.09	-.08
Step 3 Work Demands & Resources					
Work hours			.28**	.31**	.28**
Irregular schedule			.01	.05	.04
Autonomy			-.11**	.00	.01
Tenure			-.01	.01	.00
Step 4 Equation a Total Environment					
Total environment				-.27**	
No supervisor				-.07	
Missing dependent care				.04	
Step 4 Equation b Environment Indicators					
Flex time					-.09*
Flex place					.04
Dependent care benefits					-.02
Supervisor support					-.17**
Cultural norms					-.17**
No supervisor					-.07
Missing dependent care					.05
Model Summary					
N	629	625	616	598	598
R	.17	.25	.37	.44	.47
R^2	.03	.06	.13	.19	.22
Adj R^2	.02	.04	.10	.16	.19
Change R^2	.03*	.03**	.07**	.06**	.09**

Notes: Figures are standardized regression coefficients. Two equations were estimated; steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In equation a, the effects of the total environment measure were estimated at step 4 and are reported in column 4a. In equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b. * significant at .05 level ** significant at .01 level

Table 3: Results of Multiple Regression Analysis – Family-to-Work Conflict

Predictors	Full Sample				
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 5a**
Managerial/executive	.03	.03	.04	.05	.05
Professional	.09**	.09**	.10**	.11**	.12**
Technical	-.02	-.02	-.02	-.01	-.01
Sales	.02	.02	.02	.04	.04
Administrative	.01	.01	.02	.02	.03
Production/operator/repair	-.03	-.03	-.04	-.04	-.04
Industry	-.02	-.02	-.02	-.01	-.01
White	-.04	-.03	-.03	-.02	-.02
Black	-.03	-.03	-.04	-.04	-.04
Step 2 Personal Demands & Resources					
Sex		.01	.02	.02	.02
Elder/disabled care		.06**	.06**	.06**	.06**
# kids <13		.13**	.12**	.12**	.12**
# kids 13-18		.05*	.05**	.05*	.05**
Partner		-.04	-.03	-.03	.03
Family child care		-.02	-.01	-.01	-.01
Age		-.03	-.05*	-.05*	-.06*
Income level		.03	.02	.04	-.22**
Step 3 Work Demands & Resources					
Work hours			.05*	.05*	.04*
Irregular schedule			.03	.03	.03
Autonomy			-.04*	.00	.00
Tenure			.05*	.05*	.05*
Step 4 Equation a Total Environment					
Total environment				-.12**	-.29**
No supervisor				.04*	.04*
Missing dependent care				-.01	-.01
Step 5 Equation a Interaction					
Environment x income					.35**
Model Summary					
N	2,816	2,627	2,588	2,464	2,464
R	.11	.18	.20	.22	.23
R^2	.01	.03	.04	.05	.05
Adj R^2	.01	.03	.03	.04	.04
Change R^2	.01**	.02**	.01**	.01**	.00**

Notes: Figures are standardized regression coefficients. Two regression equations were estimated. Steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In regression equation a, the effects of the combined total environment measure and its interaction with income level were estimated at steps 4 and 5. In regression equation b, the effects of each individual environment indicator were examined separately at step 4. At step 5, the interaction of each with income was tested separately; when entered individually, two were significant, and the results are reported in columns 5b1 and 5b2. When both interactions were entered together, neither beta weight was significant, although the step as a whole was. * significant at .05 level ** significant at .01 level

Table 3: Results of Multiple Regression Analysis – Family-to-Work Conflict (Continued)

Predictors	Full Sample		(Continued)
Step 1 Controls	Step 4b	Step 5b1	Step 5b2
Managerial/executive	.04	.04	.04
Professional	.10**	.10**	.11**
Technical	-.02	-.02	-.01
Sales	.03	.03	.03
Administrative	.03	.03	.03
Production/operator/repair	-.02	-.02	-.02
Industry	-.03	-.02	-.02
White	-.01	-.01	-.01
Black	-.03	-.03	-.03
Step 2 Personal Demands & Resources			
Sex	.04	.04	.04
Elder/disabled care	.05**	.05**	.05**
# kids <13	.12**	.12**	.12**
# kids 13-18	.05*	.05*	.05*
Partner	-.03	-.03	-.04
Family child care	-.01	-.01	-.01
Age	-.04	-.04	-.05*
Income level	.03	-.19	-.13
Step 3 Work Demands and Resources			
Work hours	.03	.03	.03
Irregular schedule	.02	.02	.02
Autonomy	-.01	-.01	-.01
Tenure	.05*	.05*	.05
Step 4 Equation b Environment Indicators			
Flex time	.01	.01	.01
Flex place	.12**	.12**	.12**
Dependent care benefits	-.02	-.02	-.02
Supervisor support	-.03	-.15**	-.04
Cultural norms	-.20**	-.20**	-.30**
No supervisor	.04	.04	.04
Missing dependent care	-.01	-.01	-.01
Step 5 Equation b Interaction 1			
Supervisor support x income		.26*	
Step 5 Equation b Interaction 2			
Cultural norms x income			.21*
Model Summary			
N	2,464	2,464	2,464
R	.30	.31	.31
R^2	.09	.09	.09
Adj R^2	.08	.08	.08
Change R^2	.05**	.00*	.00*

Notes: Two regression equations were estimated. Steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In regression equation a, the effects of the combined total environment measure and its interaction with income level were estimated at steps 4 and 5. In regression equation b, the effects of each individual environment indicator were examined separately at step 4. At step 5, the interaction of each with income was tested separately; when entered individually, two were significant, and the results are reported in columns 5b1 and 5b2. When both interactions were entered together, neither beta weight was significant, although the step as a whole was. * significant at .05 level ** significant at .01 level

Table 3: Results of Multiple Regression Analysis – Family-to-Work Conflict (Continued)

Predictors		Lower	Income	Sample	
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 4b**
Managerial/executive	.00	.00	.02	.03	.03
Professional	.01	.01	.02	.05	.04
Technical	-.03	-.03	-.02	-.01	.00
Sales	-.04	-.03	-.03	-.02	-.02
Administrative	-.02	-.01	.00	.01	.02
Production/operator/repair	-.05	-.05	-.05	-.05	-.01
Industry	-.05	-.06	-.05	-.04	-.04
White	.02	.05	.04	.06	.06
Black	.02	.02	.00	.02	.03
Step 2 Personal					
Demands & Resources					
Sex		.00	.00	.01	.04
Elder/disabled care		.09*	.09*	.08	.07
# kids <13		-.01	.00	-.01	-.01
# kids 13-18		.08*	.08	.07	.06
Partner		.02	.02	.02	.01
Family child care		.07	.07	.08	.08
Age		-.07*	-.09*	-.10	-.09*
Step 3 Work					
Demands & Resources					
Work hours			.03	.02	.02
Irregular schedule			.09*	.08	.07
Autonomy			-.09*	-.03	-.05
Tenure			.10*	.10*	.11**
Step 4 Equation a					
Total Environment					
Total environment				-.15**	
No supervisor				.02	
Missing dependent care				-.01	
Step 4 Equation b Environment					
Indicators					
Flex time					.07
Flex place					.06
Dependent care					-.07
Supervisor support					-.07
Cultural norms					-.19**
No supervisor					.02
Missing dependent care					-.01
Model Summary					
N	719	707	696	648	648
R	.06	.16	.22	.26	.32
R^2	.00	.03	.05	.07	.10
Adj R^2	-.01	.00	.02	.03	.06
Change R^2	.00	.02*	.02**	.02**	.05**

Notes: Figures are standardized regression coefficients. Two regression equations were estimated. Steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In regression equation a, the effects of the combined total environment measure were estimated at step 4 and are reported in column 4a. In regression equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b.
* significant at .05 level ** significant at .01 level

Table 3: Results of Multiple Regression Analysis – Family-to-Work Conflict (Continued)

Predictors		Middle	Income	Sample	
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4a**	**Step 4b**
Managerial/executive	.04	.05	.03	.04	.03
Professional	.15**	.16**	.15**	.16**	.14**
Technical	.01	.01	.00	.01	-.01
Sales	.08	.09*	.08	.08*	.07
Administrative	.07	.07	.07	.07	.06
Production/operator/repair	.03	.03	.02	.01	.01
Industry	-.01	-.01	-.01	.00	-.02
White	-.02	-.02	-.01	-.02	.01
Black	-.01	-.02	-.02	.03	-.03
Step 2 Personal Demands & Resources					
Sex		.01	.03	.03	.04
Elder/disabled care		.06*	.06*	.06*	.05
# kids <13		.17**	.16**	.16**	.16**
# kids 13-18		.03	.04	.05	.04
Partner		-.06*	-.06	-.05	-.05
Family child care		-.08*	-.07	-.07	-.06
Age		-.01	-.02	-.02	-.01
Step 3 Work Demands & Resources					
Work hours			.07*	.06*	.05
Irregular schedule			-.01	-.01	-.02
Autonomy			.00	.04	.03
Tenure			.01	.01	.01
Step 4 Equation a Total Environment					
Total environment				-.12**	
No supervisor				.06	
Missing dependent care				-.03	
Step 4 Equation b Environment Indicators					
Flex time					-.01
Flex place					.12**
Dependent care					.00
Supervisor support					-.03
Cultural norms					-.22**
No supervisor					.04
Missing dependent care					-.03
Model Summary					
N	1,305	1,294	1,274	1,216	1,216
R	.13	.20	.21	.24	.33
R^2	.02	.04	.04	.06	.11
Adj R^2	.01	.03	.03	.04	.09
Change R^2	.02*	.02**	.00	.06**	.06**

Notes: Figures are standardized regression coefficients. Two regression equations were estimated. Steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In regression equation a, the effects of the combined total environment measure were estimated at step 4 and are reported in column 4a. In regression equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b.
* significant at .05 level ** significant at .01 level

Table 3: Results of Multiple Regression Analysis – Family-to-Work Conflict (Continued)

Predictors Step 1 Controls	Step 1	Upper Step 2	Income Step 3	Sample Step 4a	Step 4b
Managerial/executive	.03	.06	.06	.08	.08
Professional	.06	.08	.08	.09	.09
Technical	-.05	-.05	-.05	-.05	-.04
Sales	-.02	-.01	-.01	.00	-.01
Administrative	-.08	-.06	-.05	-.04	-.01
Production/operator/repair	-.12	-.10	-.12	-.13	-.11
Industry	.00	-.01	-.01	-.02	-.03
White	-.14**	-.14**	-.13	-.13*	-.11*
Black	-.11*	-.13*	-.13	-.13*	-.12*
Step 2 Personal Demands & Resources					
Sex		.05	.06	.05	.06
Elder/disabled care		.03	.03	.03	.02
# kids <13		.20**	.20**	.20**	.19**
# kids 13-18		.07	.08*	.07	.07
Partner		-.05	-.05	-.05	-.05
Family child care		.05	.04	.04	.03
Age		-.04	-.08	.08	-.09
Step 3 Work Demands & Resources					
Work hours			.04	.05	.02
Irregular schedule			.03	.04	.04
Autonomy			-.04	-.02	-.02
Tenure			.08	.10*	.10*
Step 4 Equation a Total Environment					
Total environment				-.08	
No supervisor				.02	
Missing dependent care				.06	
Step 4 Equation b Environment Indicators					
Flex time					-.05
Flex place					.16**
Dependent care					-.03
Supervisor support					-.01
Cultural norms					-.12**
No supervisor					.03
Missing dependent care					.06
Model Summary					
N	630	626	618	600	600
R	.20	.32	.33	.34	.39
R^2	.04	.10	.11	.12	.15
Adj R^2	.03	.08	.08	.08	.11
Change R^2	.04**	.06**	.01	.01	.04**

Notes: Figures are standardized regression coefficients. Two regression equations were estimated. Steps 1-3 were identical in both. Service and other racial background were the omitted categories for occupation and race. In regression equation a, the effects of the combined total environment measure were estimated at step 4 and are reported in column 4a. In regression equation b, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4b.
* significant at .05 level ** significant at .01 level

Table 4: Results of Multiple Regression Analysis – Emotional Exhaustion

Predictors	Full Sample					
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4ab**	**Step 5a**	**Step 5b**
Managerial/executive	.04	.04	.04	.08**	.03	.02
Professional	.05	.04	.03	.07*	.04	.00
Technical	.02	.02	.01	.03	.02	.00
Sales	.01	.00	.00	.02	.00	-.01
Administrative	.01	.00	.00	.02	.01	-.02
Production/operator/repair	.05	.07*	.02	.00	.04	.00
Industry	.02	.01	.02	.03	.02	.02
White	.01	.02	.02	.03	.01	.03
Black	.03	.03	-.01	.00	.02	.02
Step 2 Personal Demands & Resources						
Sex		.09**	11**	.11**	.11**	.06**
Elder/disabled care		.01	.01	.00	.00	-.02
# kids <13		.01	-.01	-.02	-.02	-.07**
# kids 13-18		.01	.01	.00	.00	-.04*
Partner		- .02	-.01	-.01	-.01	-.02
Family child care		.00	.01	.02	.02	.02
Age		-.12**	-.10**	-.11**	-.12**	-.08**
Income level		.05*	.03	.07**	-.08	.03
Step 3 Work Demands & Resources						
Work hours			.22**	.22**	.22**	.09**
Irregular schedule			.01	.02	.01	-.03*
Autonomy			-.24**	-.13**	-.14**	-.10**
Tenure			.01	.01	.01	.01
Step 4 Equations a & b Total Environment						
Total environment				-.28**	-.38**	-.14**
No supervisor				-.03	-.03	-.03
Missing dependent care				.00	.01	.00
Step 5 Equation a Interaction						
Environment x income					.20	
Step 5 Equation b Conflict Variable Mediation Test						
Work-to-family conflict						.47**
Family-to-work conflict						.14**
Model Summary						
N	2,814	2,627	2,587	2,464	2,453	2,453
R	.04	.15	.35	.42	.42	.65
R^2	.00	.02	.12	.18	.18	.42
Adj R^2	-.00	.02	.11	.17	.17	.42
Change R^2	.00	.02**	.10**	.06**	.00	.25**

Notes: Figures are standardized regression coefficients. Three equations were estimated. Steps 1-3 were identical in all; step 4 was the same for equations a and b. Service and other racial background were the omitted categories for occupation and race. In equation a, the effects of the total environment measure and its interaction with income were estimated at steps 4 and 5 and are reported in columns 4ab and 5a. In equation b, the total environment measure was also entered at step 4. Possible mediation of the total environment effect by the work/family conflict variables was tested by entering them at step 5; results are reported in column 5b. Regression equation c is reported and explained on the page that follows. * significant at .05 level ** significant at .01 level

Table 4: Results of Multiple Regression Analysis – Emotional Exhaustion

Predictors			Full Sample		
Step 1 Controls	**Step 1**	**Step 2**	**Step 3**	**Step 4c**	**Step 5c**
Managerial/executive	.04	.04	.04	.06	.00
Professional	.05	.04	.03	.05	-.01
Technical	.02	.02	.01	.02	-.01
Sales	.01	.00	.00	.01	-.01
Administrative	.01	.00	.00	.02	-.02
Production/operator/repair	.05	.07	.02	.02	.01
Industry	.02	.01	.02	.02	.02
White	.01	.02	.02	.04	.03
Black	.03	.03	-.01	.00	.02
Step 2 Personal Demands & Resources					
Sex		.09**	.11**	.12	.07**
Elder/disabled care		.01	.01	-.01	-.02
# kids <13		.01	-.01	-.01	-.07**
# kids 13-18		.01	.01	.00	-.03*
Partner		-.02	.01	.00	-.02
Family child care		.00	.01	.01	.02
Age		-.12**	-.10**	-.10**	-.07**
Income level		.05*	.03	.05*	.02
Step 3 Work Demands & Resources					
Work hours			.22**	.20**	.09**
Irregular schedule			.01	.00	-.04**
Autonomy			-.24**	-.13**	-.10**
Tenure			.01	.00	.01
Step 4 Equation c Environment Indicators					
Flex time				-.05*	-.03
Flex place				.05**	.02
Dependent care				-.05**	-.01
Supervisor support				-.18**	-.13**
Cultural norms				-.18**	-.06**
No supervisor				-.03	-.03
Missing dependent care				.01	.01
Step 5 Equation c Conflict Variable Mediation Test					
Work-to-family conflict					.46**
Family-to-work conflict					.13**
Model Summary					
N	2,814	2,627	2,587	2,464	2,453
R	.05	.15	.35	.46	.66
R^2	.00	.02	.12	.21	.44
Adj R^2	.00	.02	.11	.21	.43
Change R^2	.00**	.02**	.10**	.09**	.22**

Notes: Figures are standardized regression coefficients. Three regression equations were estimated. Steps 1-3 were identical in all but are repeated here for ease of comparison. Service and other racial background were the omitted categories for occupation and race. Regression equations a and b are reported and explained on the preceding page. In equation c, the effects of each individual environment indicator were examined separately at step 4 and are reported in column 4c. Possible mediation of the environment indicator effects by the work/family conflict variables was tested by entering them at step 5, with results reported in column 5c. Potential interactions of each indicator with income were tested but none were significant, so they are not reported here. * significant at .05 level ** significant at .01 level

Sample Characteristics and Descriptive Statistics for Major Variables

Demographics

While there are some small differences, comparisons of the current sample and government statistics for US workers reveal that the workers who participated in the study are fairly representative of the US workforce.

The demographics of the sample used largely reflect those of the U.S. as a whole; 79.2 percent were Caucasians, 11.4 percent African Americans, and 8.5 percent other races (including mixed). Minority representation in the sample is slightly high, as an estimated 82.7 percent of the US population is white, 12.7 percent African American and 4.5 percent falls into other categories (US Bureau of the Census, 1998). In terms of occupation, 15.7 percent of the sample were classified as executives, administrators, or managers and 18.0 percent as professionals. Sales was the occupation for 10.4 percent of participants, technical work for 5.0 percent, administrative support for 15.4 percent, and service for 10.7 percent. Some 23.9 percent were classified as involved with production, operating equipment, or conducting repairs. Government estimates for the population of US employees are similar; an estimated 15.3 percent of US workers are in managerial, executive, and administrative positions; 16.1 percent professional specialties, 3.6 percent in technical and related support positions, 10.0 percent in sales, 14.5 in administrative support jobs, 11.1 percent in service jobs, and 27.8 percent employed in production and repair work (US Census Bureau, 2000).

Just under a quarter of the workers in the sample were classified as working in a goods-producing firm, while 76.6 percent worked in the service industry, again similar to Census estimates for the US as a whole; government figures for 1997 show 20.4 percent

of US employees in goods-producing industries and 79.7 percent in the service sector (US Census Bureau, 2000).

Personal Demands and Resources

As can be seen in Table 1 on the previous page, females made up 51.6 percent of the current sample and males 48.4 percent, similar to Census estimates of 51.1 and 48.9 percent for that year (US Census Bureau, 2000). About 85% of participants lived with family members. A little over two-thirds of were married or living with a partner, and nearly half had at least one child living at home at the time of the survey. In just under a quarter of households represented, most or all care required for children was provided by a partner or other family member. Of the respondents, some 456 or 15.8 percent were currently providing assistance to an elderly or disabled adult. Time spent ranged from 15 minutes to 99 hours per week; the mean for the entire sample was 1.75 hours per week, and the mean for the affected group was 11.06 hours.

Because the study was limited to working adults, the mean age was slightly higher, at 40.2, than the mean for the US, 36.1. Just over half of the respondents belonged to the baby boom generation (born 1933-1951), 15% were from the pre-war generation and approximately one-third younger workers were part of "Generation X".

In terms of household income, the study group was somewhat better off than US households in general, probably because only working adults were surveyed, which meant that households with no working adults were not included. The median income for the all US households in 1996 was $35,492; the mean was slightly higher, at $47,123. For the current sample, the median and mean were $42,000 and $54,517, respectively.

The sample is large and quite representative, with response rates that compare

quite favorably for social research. However, as noted earlier, because of its reliance on telephone interviews the study may have somewhat lower response rates for workers at the lowest and highest ends of the financial spectrum than those in the middle. The survey involved phoning participants, finding them at home and persuading them to participate. The poorest Americans, whether working or not, are less likely to have telephones, which represent an additional expense. The richest Americans are less likely to answer the telephone themselves or to come to the telephone and spend the time required for an interview if informed of the request by an employee.

Work Demands and Resources

The respondents worked an average of 45.97 hours per week. Reported weekly work hours ranged from 4 to 144, with a median of 45 hours and a mode of 40. This is slightly higher than the US government's estimate of mean work week for non-agricultural US employees in 1997, 39.4 hours (US Census Bureau, 2000). Nearly three-quarters of respondents reported having a regular daytime schedule. Average tenure at their current organization was 7.54 years, but there was considerable variance in this; estimates ranged from less than a year to 46 years. Those who had been with their current employer less than one year made up 14.4 percent of the sample, while approximately 10 percent had been employed for 20 years or more. The median reported tenure was 4 years. This is again similar to figures reported by the US government; the median reported for US employees was 4.0 years, with 24.8 percent of workers 20 and over employed at their current organization for less than one year and 9.5 percent employed for over 20 years (US Census Bureau, 2000).

Overall, the workers in the study reported having a fairly high degree of autonomy; the sample mean was 3.03 on a four-point scale.

Organizational Work/Family Environment

The mean on the composite scale measuring the degree of flexibility in work time was 1.55 on a scale of 0-4, representing a low to moderate degree of flexibility. This reflects the fact that while 43.8 percent reported having flexibility in their starting and quitting times, only 24.7 percent were able to make changes in when they started and finished work on a daily basis. Respondents also reported only a moderate degree of control over the scheduling of their work hours, with a mean of 1.9 out of a possible four points. Just over a quarter of the sample reported that they currently worked some of their regular hours from home or would likely be able to do so.

Respondents reported having access to a mean of 3.22 out of 8 potential dependent care benefits. Of those who provided information, 94 percent reported that their organizations offered maternity leave and 79.8 percent said that paternity leave was available. Information and referral services for child and elder care were offered by the employers of 24.9 percent and 19.7 percent of respondents, respectively. On- or near-site daycare was offered by the employers of 11.3 percent of the workers sampled, and 13.6 percent reported that their employers contributed a portion of child care expenses for qualifying workers. Some 29.2 percent of respondents said that dependent care spending accounts were available at their workplaces, and 49.1 percent of working parents said that they were able to take time off to care for a sick child without losing pay or vacation days.

Overall, supervisors were seen as quite supportive of workers' efforts to balance their jobs and their families; the mean on the supervisor support scale was 3.34 on a scale with 4.0 as the highest possible value. Organizational norms, while still fairly supportive, were not quite as understanding. The mean on the cultural norms scale was 2.96 out of a possible 4, indicating that, in general, workers considered their organizations to be supportive and believed they did not penalize the careers of workers who used flexibility benefits or put their families first on occasion.

Reflecting these results, the summary index of the overall environment which was equally comprised of flexibility, benefit availability, supervisor support, and cultural norms had a mean of 9.33 for the sample out of a possible 16.

Results of Regression Analysis and Evaluation of Hypotheses

Control Variables

Although they were not central to the interest of this paper, individual results are reported for the three sets of dummy variables created to represent the controls: race, industry, and occupation. As discussed previously, the "other racial background" group was selected as the omitted variable for race, and "service" was the omitted category form occupation; beta weights thus reflect the difference between the groups presented and these contrast groups. As can be seen in Tables 2 and 3, together these three sets of categorical control variables explained one percent of the variance in work-to-family conflict (adjusted R^2 .00) and family-to-work (adjusted R^2 .01) conflict, and even less of the variance in emotional exhaustion, as reported in Table 4. The minimal amount of variance explained by these variables supports the notion that work/family conflict and burnout can be found across all types of jobs and among workers of all races.

Personal Demands and Resources

Personal demands and resources, entered into the regression equations at step 2, together explained an additional 3 percent of work-to-family conflict, as can be seen by examining the change reported in R^2 in Table 2. An additional 2 percent of the variance in family-to-work conflict was explained by these factors, as is illustrated in Table 3, and, as can be seen from Table 4, this step also added 2 percent to the variance explained in emotional exhaustion.

Gender

H1 predicted that gender would be associated with all three of the dependent variables, with women more likely to experience higher levels of conflict and exhaustion. This was generally supported for work-to-family conflict and emotional exhaustion, but not family-to-work conflict. Although the Pearson correlation between gender and work-to-family conflict was not significant at the .05 level (see Table 1), the relationship was significant when occupation, industry and race were controlled. As can be seen from Table 2, being female was a statistically significant predictor in the regression equations for work-to-family conflict at all steps, except in the low-income group. Being female was also associated with experiencing a higher degree of emotional exhaustion, with a Pearson correlation of .07 (significant at the .00 level), and a beta weight that remained statistically significant at the .05 level or better in the regression equation for the full sample (see Table 4). It appears that experiencing conflict between domains is more important than gender. Contrary to expectations, the weakest results were found for family-to-work conflict. The Pearson correlation between the two was not significant, and gender was not statistically significant in the regression results reported in Table 3.

Time caring for elderly and disabled adults

H2 predicted that more hours spent caring for elders and disabled adults would be associated with more work-to-family conflict, family-to-work conflict, and emotional exhaustion. However, only in the case of family-to-work conflict was this hypothesis supported. The Pearson correlation between the two (.04; see Table 1) was small but statistically significant at the .05 level, and as a predictor in the regression equation for the full sample reported in Table 3 it remained significant at the .00 level through all steps. The beta coefficient for time on such care was not significant in the regression equation for workers from higher-income households, perhaps reflecting their ability to purchase care. It was also not significant in the regression equations for the lower and middle-income workers once the work environment indicators were included.

As can be seen from Tables 2 and 5, spending more time on caring for elders and adults was not associated with experiencing more work-to-family conflict or emotional exhaustion, perhaps because family variables tend to be more closely associated with family-to-work conflict (Frone, Yardley and Markel, 1997). Also, while these demands no doubt have a strong impact on the lives of those who are experiencing them, only about 15 percent of the sample was affected, and most of them spent less than 10 hours a week on care.

Children

H3 dealt with the effects of children. Having more and younger children was expected to be associated with more negative outcomes; however, this was supported only for work-to-family and family-to-work conflict. As can be seen from the correlation coefficients in Table 1, having more children under 13 had a moderately strong

correlation with both more work-to-family (.13, sig. at .00 level) and more family-to-work (.11, sig. .00) conflict. Having younger children was also weakly associated with greater emotional exhaustion (r=.04, sig. 05). For the number of children 13-18, who would not require constant supervision but still represent a source of demands, the correlations were .06 (sig. .01) for work-to-family conflict, .04 (sig. .05) for family-to-work conflict, and .00 for emotional exhaustion. The patterns in the regression equations were similar. As can be seen in Tables 2 and 3, having more children, especially young children, contributed to explained variance in both work-to-family and family-to-work conflict in the regression equations for the full sample, although the beta weights were not consistently statistically significant in the lower and higher income groups, which had smaller samples. In the regression equation for emotional exhaustion reported in Table 4, the beta coefficients for having children were generally small and insignificant, at least until the work/family conflict variables were entered at step five in the equations used to examine potential mediating effects. In those equations, having children, especially young children, was associated with a small but significant decrease in emotional exhaustion. Beta coefficients were -.07 (sig. .01) for the number of 0-12-year-olds and 0.04 (sig. .05) for the number of teenagers in the regression equation examining mediation of the effects of the total environment summary variable. Results in the equation that included the five environment indicators separately as well as the two conflict variables were similar. Children, then, may contribute to reduced emotional exhaustion – once the conflict associated with them is controlled for.

Partner

H4 predicted that living with a partner, whether married or not, would be associated with less work-to-family conflict, family-to-work conflict and emotional exhaustion. Evidence of a relationship was only found in the case of work-to-family conflict. In terms of the Pearson correlations reported in Table 1, the only statistically significant relationship found was for work-to-family conflict (.05, sig. at .01 level) and not in the predicted direction – the correlation indicates that having a partner was actually associated with more work-to-family conflict. In the regression equations for work-to-family conflict reported in Table 2, the standardized beta coefficient for having a partner was also positive and significant when job characteristics were included in the regression equation for the full sample (-.05, sig. at .05). However, the beta coefficient for having a partner was not significant in the separate samples for each income level. This is at least partially due to sample size, as patterns similar to the one found for the full sample could be seen for the lower and middle income groups. For workers in these groups, once job characteristics were controlled for, the beta weights for having a partner increased in size; however, they were not significant in due smaller sample sizes. Having a partner appeared to have little impact on upper-income workers, perhaps because they could pay for alternative assistance. Having a partner was generally not a significant predictor in the equations for family-to-work conflict and emotional exhaustion.

Family member provides child care

Being able to rely on a family member to handle most needed child care for the youngest child (presumed to be an indicator for care arrangements for all children) was

predicted to be associated with less conflict and emotional exhaustion in H5. This hypothesis was not supported.

About one-fifth of the sample had such child care arrangements, and family care was correlated with both work-to-family and family-to-work conflict, but not as expected. As can be seen in Table 1, the positive correlations of .08 and .06 (both sig. at .00 level) indicate that having someone in the family care for the children was actually associated with more conflict. This may reflect the fact that the person involved is often the spouse and/or represents a strong set of demands of his or her own. In the regression equations reported in Tables 2, 3, and 4, where having a partner was included at the same step, the standardized beta coefficients were not significant, lending some support to this interpretation.

Household Income Level

H6 predicted that a higher household income would serve as a resource, reducing conflict and emotional exhaustion, particularly when industry and occupation were controlled for. There was little support for this hypothesis.

As expected, a higher income (often associated with a more demanding job) was actually positively correlated with both work-to-family (.06) and family-to-work (.05) conflict (both sig. at .00 level) when the Pearson correlations reported in Table 1 were examined. However, contrary to prediction, the beta coefficients for household income level in the regression equations for work-to-family conflict and emotional exhaustion reported in Tables 2 and 4 were significant and positive even when occupation and industry were controlled for. Even when the job characteristics considered as work demands and resources were included at step 3, the beta coefficients for income level

were positive and statistically significant at the .01 level for work-to-family conflict and emotional exhaustion. It seems likely the variables used to measure job demands did not fully capture the differences. When the interaction effects were included at step 5, in all three full-sample regression equations the beta coefficients for income level became larger, highly significant, and negative. With the interactions between income and organizational environment resources partialed out, a higher income level was associated with less conflict and emotional exhaustion, but in general there was little support for H6, likely because the other variables included in the equation did not adequately capture and control for job characteristics.

Age

H7, the final hypothesis regarding personal demands and resources, predicted that older workers would experience less conflict and burnout, at least partly because they would have developed better coping skills through life experience. This hypothesis was generally supported by the data.

As can be seen in Table 1, the Pearson correlations were all negative and significant at the .00 level, (-.10 for work-to-family conflict, -.06 for family-to-work conflict, -.12 for emotional exhaustion). The beta coefficients for age were consistently significant in the three regression equations for the full sample reported in Tables 2, 3, and 4. Similar patterns were observed in the separate equations by income group, although the effects were not always significant, in many cases due at least partly to the smaller sample size. The standardized beta weights for age were not significant for middle- and upper-income workers in the work-to-family equations once the work demands and resources and environment variables were included in the regression (see

Table 2). In the family-to-work equations reported in Table 3, the coefficients for age were also generally not significant for the middle- and upper-income workers. In the regression equations for emotional exhaustion reported in Table 4, the beta coefficients for age were strong and highly significant for the upper and lower income groups, but not for middle income earners.

Work Demands and Resources

The four variables selected to represent work demands and resources and entered at the third step of the regression equations explained an additional 9 percent of the variance in work-to-family conflict, as illustrated in Table 2. The change in R^2 associated with this step in the regression equation for family-to-work conflict was only 1.0 percent, as is shown in Table 3. Work demands and resources added the most to the explanation of emotional exhaustion; as can be seen in Table 4 R^2 increased by 10 percent.

H8 dealt with work demands, predicting that longer hours and an irregular schedule would be associated with more negative outcomes. This was generally supported for work hours but not for having an irregular schedule. H9 predicted that having greater autonomy and longer tenure or experience in the same line of work would be associated with lower levels of conflict and emotional exhaustion. This was supported for autonomy in the case of work-to-family conflict and emotional exhaustion, and for tenure in the case of family-to-work conflict.

Work hours

As can be seen in Table 1, the Pearson correlations for total work hours were strong and significant at the .00 level: .24 for work-to-family conflict, .07 for family-to-work conflict, and .19 for emotional exhaustion. In the full-sample and income group

regression equations for work-to-family conflict reported in Table 2, hours worked was the strongest predictor, except for the summary measure of how supportive the work environment is. Work hours was also a powerful predictor in the regression equations for emotional exhaustion, as can be seen in Table 4. While the beta coefficient for work hours was also significant at the .05 level in the full-sample regression equation for family-to-work conflict (Table 3), it did not have as much impact and was not always significant in the equations for the three income groups, congruent with previous findings that work stressors have their strongest impact on work-to-family conflict (e.g. Frone, Yardley and Markel, 1997).

Irregular schedule

As can be seen from the correlation matrix reported in Table 1, having an irregular schedule was associated only with work-to-family conflict, (.07, sig. at the .01 level), and its standardized beta in the full-sample regression equation for that variable reported in Table 2 was also significant at the .01 level, although it was not as powerful a predictor as hours worked. Similar patterns were observed in the separate regression equations for the lower and middle income groups, but not for the high income group, which is less likely to have such arrangements. The beta coefficients for having an irregular schedule were not significant in the equations for family-to-work conflict and emotional exhaustion reported in Tables 3 and 4.

Autonomy

Examining the Pearson correlations reported in Table 1, autonomy had a significant negative relationship with work-to-family conflict (-.14, sig. at .01 level) as well as emotional exhaustion (-.23, sig. at .01). No relationship was found for family-to-

work conflict. In the regression equations for work-to-family conflict (Table 2) and emotional exhaustion (Table 4), the beta coefficients for autonomy were generally strong and significant, although they shrank when flexibility was added at step 4 in the separate equations for each income group, implying that some of the benefits of autonomy are associated with the flexibility it makes possible.

Tenure

As can be seen in Table 1, tenure was correlated only with emotional exhaustion (-.04, sig. at .05). In the regression equations, it did not have a statistically significant impact on work-to-family conflict, as can be seen in Table 2. Tenure added the most to explaining family-to-work conflict, and was a significant predictor in the equations shown in Table 3 for the full sample and lower income groups, but still contributed very little to variance explained. As can be seen in Table 4, the beta coefficient for tenure was small and insignificant in the regression equations predicting emotional exhaustion. Overall, then, experience at the employing organization contributed little to understanding variance in the three outcomes.

Family-Supportive Organizational Environment

Hypothesis 10 predicted that a family-supportive work environment would be linked to lower levels of conflict and emotional exhaustion, and this was supported by the results.

In the full sample, the effects for the summary environmental variable were quite strong. The Pearson correlations, reported in Table 1, were negative, and all were significant at the .01 level. The relationship between a supportive environment and work-to-family conflict was -.23, with a correlation of -.08 for family-to-work conflict,

and -.29 for emotional exhaustion. In the full-sample regression equations, this step made the second largest contribution to explained variance in family-to-work conflict, just behind personal demands and resources, as can be seen in Table 3 (step 4a). It was also just slightly behind work demands and resources in explaining work-to-family conflict (see Table 2 step 4a) and emotional exhaustion (see Table 4 step 4a). A supportive environment added 5 percent to variance explained in work-to-family conflict, 1 percent in the case of family-to-work conflict, and 6 percent for emotional exhaustion.

The effects of the individual environment indicators were also fairly strong in the full sample. Looking at the simple correlations, flexibility in work time was associated with lower levels of work-to-family conflict (-.09, sig. at .01) and emotional exhaustion (-.14, sig. at .01), but not family-to-work conflict. A similar pattern emerged for access to dependent care benefits, which had a -.10 (sig.at .01) correlation with work-to-family conflict and a -.04 (sig. at .05) correlation with emotional exhaustion. Supervisors who were supportive when family issues arise and supportive cultural norms were all significantly and negatively related to all three outcome variables; correlations ranged from -.11 for supervisor support and family-to-work conflict to -.31 for supportive cultural norms and emotional exhaustion (see table 1). However, the results for flexibility in work location were quite different from what was expected. The ability to work from home was actually associated with more work-to-family conflict (r=.05, sig. at .05) and even greater levels of family-to-work conflict (r=.12, sig. at .01). There was no relationship between flexibility in work location and emotional exhaustion.

The patterns found in the regression equations for the full sample were similar; after controlling for demographics, personal demands and resources, and work demands

and resources, flexibility in work time, greater access to dependent care benefits, family-supportive supervisors and supportive cultural norms were all associated with less work-to-family conflict and emotional exhaustion, with the strongest effects found for cultural norms that don't penalize workers for putting family before their jobs when necessary (see results reported in Table 2 step 4b and Table 4, step 4c). In the case of family-to-work conflict, only supportive cultural norms had a statistically significant beta weight.

Overall, when the supportive environment indicators were added separately at the fourth step of the regression equations, they explained an additional 8 percent of the variance in work-to-family conflict, an additional 5 percent of the variance in family-to-work conflict, and 9 percent of the variance in emotional exhaustion. The change in R^2, then, was greater when the five indicators were entered separately than when the total environment summary variable was used.

Interaction Effects

H11 suggested that a supportive work environment would have the most positive impact for those with lower financial resources, namely those from lower-income households, while H12 predicted that and single parents would benefit more from a supportive environment than others. There was a fair amount of support for H11, which dealt with income, but not for H12.

Income level and work environment

The environment x income level interactions were significant and the change in variance explained by this step, while very small, was statistically significant at a .01 level in the full-sample work-to-family conflict regression equation reported in Table 2 (see equation a), as well as the family-to-work conflict regression equation reported in

Table 3 (equation a). In the case of emotional exhaustion, the interaction effect was significant at the .06 level, just missing the standard cutoff (see Table 5 equation a). Thus, some support was found for the idea that a family-supportive environment has the most positive effects for those who need it most due to lower resources, although this was less supported in the case of burnout. In separate regression equations for each income level (see Tables 2 and 3, equation a), the standardized beta coefficients for the summary total environment variable were consistently larger for the lower-income group than for higher and middle income workers.

The interactions between income level and the five supportive environment indicators were also examined in separate equations for each dependent variable. Those which were significant at the .05 level or better are reported in the results tables. Only the interaction between income level and dependent care benefit availability had a significant standardized beta coefficient in the work-to-family conflict regressions (see Table 2 equation b). In the case of family-to-work conflict, the interactions between income level and both supervisor support and cultural norms were significant when entered separately at step 5, and those results are reported in Table 3 (equations b1 and b2). When both interactions were entered together at the fifth step, neither interaction was significant, but the step as a whole did add to variance explained at a statistically significant level. Similar to the findings for the overall environment, the strongest interaction effect observed for emotional exhaustion, the interaction between income level and supervisor support, was significant at the .06 level, just missing the standard .05 cutoff. Therefore, it is not presented in the results.

In the case of work-to-family and family-to-work conflict, differences between workers at the three income levels are examined more closely in additional regression equations included in Tables 2 and 3. Because none of the interactions were significant in the case of emotional exhaustion, separate tables for each income group are not presented. The significant interactions have been graphically illustrated by plotting the regression lines for each income group; these are shown in Figures 3-7, included in Appendix B. In each case, the effects of organizational support are most dramatic for lower income workers.

As can be seen from these figures and from the low additional amount of variance explained by the interactions (which ranged from 0 to 1 percent), the interactions, although statistically significant, are not particularly dramatic. Part of this may have to do with the fact that the middle income group is the most strongly represented here, partially because middle class workers are more numerous and partly because, as noted earlier, they are easier to contact by telephone than either very low- or high-income employees. Another potential reason the results are not so strong may be the cutoff points chosen for each income group. While they were logically selected using a reliable external data source and appear reasonable, it may well be that the classifications are not optimal. The higher income group in particular may be inappropriate; while workers with an income over $68,000 likely can easily afford quality day care as well as bimonthly lawn and cleaning help, likely an income of $100,000 or more is required to truly be capable of hiring full-time help to handle most tasks on the home front. Full-time help that almost completely relieves workers of such demands would have the strongest effects. The figures in Appendix B provide some support for this interpretation,

as the regression lines for the middle and upper income group are quite similar to each other, with more of a difference being seen for the lower income group in most cases.

Single parent status and work environment

The environment x single parent interactions were not significant when entered into the regression equations for work-to-family conflict, family-to-work conflict, and emotional exhaustion. Interactions involving the five environment indicators were also not significant. They were dropped from the model and are not presented in the accompanying tables.

Mediating Effects for Full Sample

Hypothesis 13 predicted that work-to-family and family-to-work conflict would mediate the effects of a family-supportive work environment on emotional exhaustion. That is, a supportive environment would reduce emotional exhaustion by decreasing the amount of work/family conflict experienced. This hypothesis was examined in two regression equations relying on the full sample, one that looked the effects of the total environment composite variable and one that included all of the five environment indicators. Both provided evidence of partial mediation. In first regression equation, the beta coefficient for the total environment summary variable was strong and highly significant at -.28 when entered at step 4 (see Table 4 equation a). When work-to-family and family-to-work conflict were entered into the equation at step 5, the total environment variable coefficient remained significant at the .01 level but shrank considerably to -.14. In the second equation (see Table 4 equation c), All of the indicators were negative and statistically significant when entered at step 4, except for flexibility in work location, which was positive and significant. Beta coefficients ranged

in size from -.05 (flexibility in work time) to -.18 (supervisor support and cultural norms). After the work/family conflict variables were entered at step 5, only the supervisor support and cultural norms coefficients remained significant, and these had shrunk to -.13 and -.06, respectively, showing indications of partial mediation. Greater evidence of mediation was seen in the case of the flexibility variables and the number of dependent care benefits available, which were no longer significant once work/family conflict was included in the equation. The work/family conflict step added over 20 percent more to variance explained in emotional exhaustion, raising the adjusted R^2 to .43 where the indicators were all entered separately. The beta coefficient for work-to-family conflict, at .46 in that equation, was nearly three times the .13 estimated for family-to-work conflict, indicating that work-to-family conflict was is more closely related to burnout.

Overall Variance Explained

In the full-sample regression analyses, the variables included, controls, personal demands and resources, work demands and resources, supportiveness of the work environment, and the interaction between the work environment indicators and income level, explained 18 percent of the variance in work-to-family conflict (adjusted R square = .20), as shown in Table 2 (equation b). As can be seen in Table 3 (equation b), they explained just 9 percent of the variance in family-to-work conflict (adjusted R square = .08), but 21 percent of the variance in emotional exhaustion (adjusted R square = .21), as reported in Table 4 (equation c). The best results for emotional exhaustion were achieved by including the work/family conflict variables in the regression equation that examined

the effects of the environment indicators separately (see Table 4 equation c). This model explained 44 percent of the variance in emotional exhaustion (adjusted R square = .43).

The model was much stronger, apparently, in predicting work-to-family conflict and emotional exhaustion, perhaps because both of these clearly have their roots in the work domain. The present model appears to have done a fairly good job of capturing work demands and resources. However, the amount of variance explained for family-to-work conflict was much lower. Since this type of conflict has its roots in the nonwork realm, presumably important personal demands were not well measured or may not have been included. Measures that include how supportive a spouse is or how many hours are devoted to home and child care tasks might have contributed to stronger predictions. Another reason the amount of variance explained for family-to-work conflict is lower than in previous research is the reliance on straightforward indicators of demands and resources rather than scales that involve an attitudinal component. Studies that have included measures of inrole conflict (e.g. conflict within the family) or ambiguity of family roles have been able to explain more variance in this outcome.

A summary of the hypotheses included in the study and findings related to them is included in a table that begins on the next page.

Table 5: Summary of Hypotheses and Results

		Supported for WFC	Supported for FWC	Supported for EE
H1	Being female will be associated with higher levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	Yes	No	Yes
H2	Spending more time caring for elders and disabled adults will be associated with higher levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	No	Yes	No
H3	Having more children, particularly young children, will be associated with higher levels of work-to-family conflict and family-to-work conflict and emotional exhaustion.	Yes	Yes	No
H4	Living with a partner will be associated with lower levels of work-to-family conflict, family-to-work conflict and emotional exhaustion.	No	No	No
H5	Having most or all needed child care provided by a family member will be associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	No	No	No
H6	When occupation and industry are controlled, a higher household income level will be associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	No	No	No
H7	Being older will be associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	Yes	Yes	Yes
H8	Greater work demands (longer hours and an irregular schedule) will be associated with higher levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	Yes	Hours yes, schedule no	Hours yes, schedule no
H9	Having more job-related resources (greater autonomy and more experience working at one's current organization) will be associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	Autonomy yes, tenure no	Tenure yes, autonomy no	Autonomy yes, tenure no

Table 5 (continued)

		Supported for WFC	Supported for FWC	Supported for EE
H10	Working in a more family-supportive environment (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) will be associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion.	Yes	Yes	Yes
H11	The positive effects of a family-supportive environment (more dependent care benefits, greater flexibility in work timing and location, greater supervisor support, and more family-supportive cultural norms) on work-to-family conflict, family-to-work conflict, and emotional exhaustion will be strongest for employees from low-income households and weakest for employees from high-income households.	Yes	Yes	No
H12	The positive effects of a family-supportive work environment (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) on work-to-family conflict, family-to-work conflict, and emotional exhaustion will be stronger for single parents.	No	No	No
H13	Work-to-family conflict and family-to-work conflict will mediate the effects of a family-supportive environment (one with greater flexibility in the timing and location of work, more access to dependent care assistance, supportive supervisors, and cultural norms that don't penalize workers for putting family first) on emotional exhaustion.			Partially

Why Income Matters

The finding that workers at lower income levels may benefit more from working in a family-supportive environment is one of the major contributions of this study, and further analyses were conducted to examine why income matters. Not much is known about how the effectiveness of different ways employers can support their workers in balancing their roles in the two domains may differ based on income level. Yet there are strong practical implications for employers; this analysis implies that stress will be more greatly reduced by efforts to create a family-supportive work environment among lower-income workers. It is important to understand why and in what ways these workers differ from colleagues with greater disposable income. The separate regression analyses and correlations reported here for workers in three different income groups provide some information.

How Workers Differ

As can be seen by the correlations reported in Table 1 and the means reported in Tables B2-4, found in appendix B, lower income workers are somewhat more likely to be younger and female, to spend more time caring for elders and disabled adults, and to have teenage children. They are considerably more likely (r=.37) to be single. Lower income workers are more likely to work under irregular schedules, have less autonomy, and shorter tenure, but they work fewer hours. Higher incomes are associated with more workplace support, including flexibility in work time and location, dependent care benefits, and cultural norms, although less difference was found in the degree to which supervisors were supportive about family issues. Workers at higher income levels tend to experience more conflict between work and family, presumably because they tend to

have more demanding jobs. There is not much difference in the level of emotional exhaustion experienced, but the mean for the middle income group is the highest, followed by the upper and lower income groups.

Differences in Environment Indicator and Outcome Relationships

Flexibility in work time and location was considerably less common among lower-income workers than their more moneyed counterparts. However, the correlation between time-related flexibility and work-to-family conflict was strongest for lower-income workers (r=-.13; see Table B2 located in appendix B), and about equal for middle and higher income workers (r=-.10; see Tables B3 and B4). The correlation between time flexibility and emotional exhaustion, however, was strongest for higher income workers (-.17; see Table B4), followed by lower (r=-.14; see Table B2) and middle income employees (r=.12; see Table B3). Although it might be expected to reduce instances where family demands forced one to be late or leave early, formal time-based flexibility had no relationship to family-to-work conflict in any group. Flexibility in work location was associated only with family-to-work conflict, and only among middle (r=.14 see Table B2) and upper income (r=.16 see table B3) workers; as in the full-sample correlations, greater flexibility was related to experiencing more conflict.

Differences were also found in the relationships between access to dependent care benefits and the outcome measures. Among lower income workers, having more benefits was strongly and significantly associated with experiencing less work-to-family conflict (r=-.20), family-to-work conflict (r=-.11) and emotional exhaustion (r=-.15), as can be seen in Table B2. For middle income workers, the relationship was not significant in the case of family-to-work conflict, and was weaker (r=-.12) for both work-to-family conflict

and emotional exhaustion. None of the much smaller correlations were significant among the higher income group. Benefits appear to be one area where those with greater monetary resources may have more alternatives than lower income workers, for whom such benefits represent a powerful form of assistance in reducing conflict and stress.

As can be seen in Table B2, informal support in the form of understanding and helpful supervisors was strongly associated with less work-to-family conflict (r=-.29) and emotional exhaustion (r=-.37) for lower income workers, and more modestly linked to less family-to-work conflict (r=-.18). For middle income workers (see Table B3), the pattern was similar but the correlations were smaller; r=-.21 for work-to-family conflict, r=-.29 for emotional exhaustion, and r=-.08 for family-to-work conflict. The correlation between supervisor support and family-to-work conflict was the same for the upper income group (see Table B4), but was only significant at the .05 level due to the smaller sample size. Supportive supervisors were again strongly associated with less work-to-family conflict (r=-.25) and emotional exhaustion (r=-.29).

Supportive cultural norms were strongly associated with less emotional exhaustion at all three income levels, with the closest relationship found among higher income workers (r=-.33; see Table B4), followed by lower income workers (r=-.29; see Table B2) and middle income workers (r=-.27; see Table B3). It appears that cultural norms that don't penalize employees for failing to put work first at all times are associated most strongly with less burnout among the high income workers who likely care deeply about promotion opportunities. Such norms, however, are also linked to less stress among lower-income workers. All three income groups report similarly strong relationships between supportive cultural norms and work-to-family conflict (r= -.26 or

-.27; see Tables B2-4). The strength of the relationship between supportive norms and family-to-work conflict depends on income level; as COR theory would predict, the correlation is strongest for lower income workers (r= -.22; see Table B2), followed by middle income workers (r= -.19; see Table B3) and upper income workers (r= -.17; see Table B4).

Reflecting the relationships discussed above, the total environment summary variable is most strongly associated with reduced emotional exhaustion, perhaps because the overall environment has direct effects on emotional exhaustion as well as indirect effects via work/family conflict. The correlation, again, is strongest among lower income workers (r= -.34; see Table B2), with the relationship found among middle income workers (r= -.28; see Table B3) and higher income workers (r= -.29; see Table B4) slightly weaker. The overall environment was also strongly linked to reduced work-to-family conflict in all three samples. For the lower income sample, the relationship was -.33 (see Table B2), while the correlation was a slightly smaller -.24 in the middle income sample (see Table B3) and -.19 in the upper income sample (see Table B4).

Regression Results By Income Level

The correlation patterns discussed in the previous section are also apparent in the separate work-to-family and family-to-work regression analyses conducted for each income group to further examine the significant interaction results found for income. In these analyses, the effects of the control variables, as well as personal and work-related demands and resources are controlled for and examined.

Income and Work-to-Family Conflict

In the separate regression equations for work-to-family conflict reported in Table 2, every step except the controls adds significantly to variance explained for all three income groups. The largest change in R^2 was associated with work demands and resources for the lower and middle income groups, followed closely by the work environment indicators. For the higher income group, the environment indicators added the most to variance explained. In the lower income group, three of the five indicators – the dependent care benefit index, supervisor support and cultural norms that don't penalize workers for putting family first – had beta coefficients significant at the .01 level, all of similar size. The same environment indicators had statistically significant beta coefficients in the middle income group, although the estimated effect size for cultural norms was much higher than for supervisor support and the benefits index. For workers in the high income group, the beta estimates for dependent care benefits were not significant, although the beta associated with flexibility in work time was, perhaps because there was greater variance as more people would be likely to have a high degree of flexibility.

In all three income groups, the total environment summary variable added significantly to variance explained (see Table 3 equation a), but not as much as including the environment indicators separately (see Table 3 equation b). The largest beta coefficient was found in the lower income group (-.29), followed by the higher income group (-.27) and the middle income group (-.24). This is partially consistent with expectations, although the smallest coefficient would have been expected to be associated with the high income group. Although it is not completely clear from the analyses, one

plausible explanation is that those in the lower income group experience less emotional exhaustion due to less extensive job hours and demands. The middle income group may face a higher level of demands without access to the more extensive resources available to higher income workers.

In general, however, the overall results are consistent with the prediction that these benefits are most valuable to workers with fewer financial resources, who are less likely to be able to pay for assistance or alternatives on their own. Overall, the model did a slightly better job of explaining work-to-family conflict in the middle-income group, where adjusted R^2 was .21, than for the upper and lower income groups, where it was .19. However, R^2 was the same for all three groups; the differences reflect sample size.

Income and Family-to-Work Conflict

In the equations for family-to-work conflict by income level reported in Table 3, the control variables again explained only a small amount of variance – 0 percent in the low income group, 2 percent in the middle income group, and 4 percent in the high income group. This is likely because income is so closely associated with occupation. The steps representing personal demands and resources, work demands and resources, and the family supportiveness of the work environment all added significantly to the relatively small amount of variance explained in the lower income group. In the middle and high income groups, personal demands and resources and work environment added significantly, but work demands and resources did not. In the lower and middle-income groups, the largest amount of change in R^2 was associated with adding the environment indicators separately at step 4, and this was second only to personal demands and resources in explaining variance in family-to-work conflict for the higher income group.

As was the case with the full-sample analyses, the regression equation that examined the effects of the composite environment variable (labeled equation a in Table 3) explained less variance than the equation that included each of the five indicators (labeled equation b) in all samples. The conflict-reducing effects of the total environment on family-to-work problems were strongest for the low income workers, with a beta coefficient of -.15 (sig. at .01), and still visible for the middle income group, which had a beta coefficient of -.12 (sig. at .01). However, the beta coefficient for the higher income group (-.08) was considerably smaller and not statistically significant.

Looking at the individual beta coefficients for the environment indicators, only cultural norms was significant for workers from lower income households. At the middle and higher income levels, only non-penalizing cultural norms and flexibility in work location were significant. Contrary to predictions, being able to work from home appeared to be associated with more conflict, rather than less. This result is likely influenced by the fact that many of those who indicated they had this benefit were actually using it. They may have sought such an option because they already had high levels of conflict, or it may be that working at home makes conflicts more likely and more salient.

The results for cultural norms could be interpreted to mean that a more forgiving culture actually reduces family intrusions on work. As noted earlier, allowing workers to call and confirm that their children or parents are o.k. can make it easier for them to relax and concentrate. An equally compelling interpretation, however, is that workers in organizations that expect work to always come first and penalize workers for using family-related benefits, like flextime, are more sensitive when their families affect their

work, and thus report a higher degree of family-to-work conflict. The current study does not allow us to determine which of the two explanations is more accurate; probably both are somewhat true.

Overall, the model was most successful in explaining variance in family-to-work conflict among workers from upper-income families, with an adjusted R^2 of .11, than among middle income workers, with an adjusted R^2 of .09, or lower-income employees, with an adjusted R^2 of .06.

Higher Income Associated with Smaller Environment Impact

While there are some discrepancies, overall, these analyses underline the fact that there are differences in how a family-supportive work environment affect workers at different income levels. As the conservation of resources theory would predict, they are differences in terms of degree, not direction. Working in a more supportive environment is associated with less work/family conflict and emotional exhaustion for all workers. But dependent care benefits, particularly, appear most valuable to workers from lower income households, who are less able to afford alternative assistance. Informal support in the form of nonpunative cultural norms and understanding supervisors is beneficial for all workers with less difference due to income levels.

Summary of Results

While not all of the variables included in the study had statistically significant effects, when examined as sets, personal demands and resources, work-related demands and resources, and a family-supportive work environment all added significantly to variance explained in the three outcome variables for the full sample analyses.

In the case of work-to-family conflict, being a woman, being younger, and having more children (especially children under 13) were associated with greater conflict. Long work hours and an irregular schedule were also associated with more work-to-family conflict, while greater work autonomy and a supportive work environment were associated with less. There was support for the notion that a working in a supportive environment had a greater effect on workers from lower-income households.

A supportive environment also appeared to have a stronger impact on family-to-work conflict for lower- and middle-income workers than those from higher income households, although it was associated with less conflict for workers in all three groups . Greater family-to-work conflict was associated with spending more time caring for elderly and disabled adults, having children, especially young children, being younger, and working longer hours.

The variable with the strongest association with emotional exhaustion was work-to-family conflict. Family-to-work conflict, longer work hours, and being female were also associated with greater emotional exhaustion; autonomy on the job and a family-supportive work environment were associated with less. A supportive work environment had a relatively association with emotional exhaustion, and was connected with less burnout. The effects of the supportive environment indicators on emotional exhaustion appeared to be partially mediated by work-to-family and family-to-work conflict.

CHAPTER 6: DISCUSSION

Contributions of the Study

The purpose of this study was to examine the effects of a family-supportive work environment on emotional exhaustion and conflict between work and family in the context of other relevant demands and resources in both domains, work and home. Consistent with the notion, drawn from COR theory, that a family-supportive work environment can be viewed as an important resource for reducing stress, working in a more supportive environment was associated with less work-to-family conflict, as well as lower levels of family-to-work conflict and emotional exhaustion. This was particularly true for workers from lower income households.

The results found for work-to-family conflict are congruent with the findings of earlier studies that involved more homogenous samples of workers (e.g. Allen, 2000; Thompson *et al.*, 1999). The only previous study to examine the relationship between indicators of a family-supportive environment and family-to-work conflict was based on a sample of male executives and found no connection between the two (Judge *et al.*, 1994). However, male executives represent a unique group of workers that likely has uniformly low levels of family-to-work conflict, as excessive family interference would probably have derailed their careers (Kossek and Ozeki, 1998). They also have greater financial resources to draw on and are in a better position to purchase assistance in dealing with home and family responsibilities that might cause family-to-work conflict. Thus, the findings in the current study, which included a wider variety of workers, can be viewed as more applicable to understanding the overall effects of a family-supportive environment. While previous work had found that supportive supervisors were

associated with less emotional exhaustion (Lee and Ashforth, 1996), this was the first study to look at how it might be related to other aspects of a family-supportive organizational environment.

There was no evidence that working in a family-supportive environment had a stronger impact on conflict and emotional exhaustion among single parents. However, congruent with implications drawn from social exchange and COR theory, there was evidence that lower-income workers, who may have the greatest need for organizational support due to economic limitations on their ability to pay for alternative assistance, may derive more benefit from working in a family-supportive environment. The relationships between dependent care benefits and the outcomes were strongest for workers from lower-income and middle households. They were associated with reduced work-to-family conflict for these groups and with emotional exhaustion for lower-income workers only; no significant relationship to family-to-work conflict was found.

Some of the strong effects found for benefits and other supportive environment indicators may be related to the fact that organizations with family-supportive environments are also likely supportive in other respects – and workers are also likely to experience less stress when they have access to better working conditions and more comprehensive traditional benefits, like paid vacation and retirement plans. Those in the lower echelons of America's workforce are not as well treated in these respects, so the effects of broad-based organizational would be particularly strong for them.

Workers of all income levels experienced more positive outcomes when they had supervisors supportive of their efforts to do well in both work and family roles, and a culture that did not penalize them for occasionally putting family needs before work,

findings that are compatible with previous studies (Roehling *et al.*, 2001; Allen, 2000; Thompson *et al.*, 1999).

The weak results found for flexibility in work timing compound the confusion created by contradictory findings in previous research. Time-based flexibility was significant only in the work-to-family conflict regression equation for higher-income workers, perhaps reflecting the formal nature of the flexibility measure and the fact that flextime policies are more likely to cover workers in better-paying jobs. Supervisors who allow workers to handle nonwork problems during work hours, a form of informal flexibility, may have more impact than formal flextime programs. Flexibility in work location, a type of support that has attracted considerable attention in recent years but has been little studied, was actually associated with more family-to-work conflict in the middle- and upper-income groups more likely to utilize this benefit, and contributed little to understanding work-to-family conflict or burnout. As noted earlier, many of those who reported access to this benefit were actually using it. The finding that working from home may be associated with greater family-to-work conflict is understandable in the light of the qualitative studies discussed in Chapter 3. However, more research is needed to evaluate this conclusion.

Overall, a supportive environment was one of the strongest contributors to variance explained for workers of all income levels for all three outcomes. Part – but not all – of the impact of such an environment on emotional exhaustion was mediated by work/family conflict, particularly work-to-family conflict. While more complete mediation was expected, this finding is consistent with the results of previous research, supporting other studies that have concluded that a family-friendly environment may act

as a signal of overall support for workers (Grover and Crooker, 1995; Allen, 2000) and may reduce stress even if benefits are not used (Lee and Ashforth, 1993) or if they are more extensive than a worker's family situation would require (Edwards and Rothbard, 1999).

While the major focus of the study was to examine the effects of organizational support for workers balancing home and job responsibilities, it also examined relationships between the outcome variables and other important personal and work demands and resources. Although findings regarding the relationship between gender and both work-to-family conflict and emotional exhaustion have been mixed, sex emerged as a significant influence on both. Contrary to expectations, however, it did not have strong effects on family-to-work conflict, possibly because workers of both genders consciously attempt to learn the accepted limits within their organizations, and either stay within them or find more compatible workplaces. In this study, as in others, reported levels of work-to-family conflict are higher than those of family-to-work conflict, indicating that workers may be more protective of the boundary between work and family when job performance is at stake (Bond, Galinsky and Swanberg, 1998).

Consistent with previous research and COR theory, having more children, especially young children, was associated with more work/family conflict in both directions. Little research that reported on the relationship between children and burnout could be located; the single study that reported a statistically significant relationship had found that parents who served the public at a government agency experienced less emotional exhaustion than nonparents, indicating that they might serve primarily as a resource rather than a source of demands (Maslach and Jackson, 1985), contrary to

thinking in work/family research. There are important differences between that study and this one; the sample used here is broader and more variables are included in the analysis. In the current study, no relationship was found until work/family conflict was controlled – at which point the number of children appeared to have a weak association with lower burnout. This is consistent with the view that children may be considered both a source of demands and a resource. The same may hold for partners, which contributed little to explaining variance in all three outcomes. While some other studies have found partners to serve primarily as a resource, the strongest effects are, perhaps naturally, reported for those that include measures of how supportive the spouse is.

The findings of the current study highlight the importance of considering age and income level, which have often been ignored in previous research or treated as controls. The greater knowledge and experience associated with being older represents a strong resource, as is indicated by the significant effects found for all three outcomes.

As anticipated, longer work hours exerted a strong influence on both conflict and burnout. Autonomy also appeared important, at least in understanding work-to-family conflict and burnout, consistent with previous research (Frone *et al.*, 1998; Lee and Ashforth, 1996). Consistent with previous research driven by role theory, these work-related influences added less to the explanation of family-to-work conflict. Researchers seeking to explain this phenomenon need to focus on non-work factors.

Irregular schedules, which previous research has associated with increased burnout (Demerouti *et al.*, 2001), here had their only effect on work-to-family conflict. As anticipated, a need to be on the job during the hours that most people are home with their families was associated with greater conflict, likely because it reduced the overall

amount of time that could be spent together. Contrary to the findings of some other studies, longer tenure had only a weak effect, and only on family-to-work conflict. The implication is that greater experience may enable workers to better manage the demands of their private lives without impacting their work, but does not necessarily mean they won't let their work interrupt family activities.

The demands and resources included in the model did a better job of predicting levels of work-to-family conflict and emotional exhaustion than family-to-work conflict. Likely this reflects the fact that work-related demands and resources, including a family-supportive organizational environment, are most closely related to these outcomes, while family-to-work conflict is more closely associated with demands and resources off the job. Although eight measures of personal demands and resources were included in this study, they explained very little variance in family-to-work conflict, perhaps because they were not specific enough. Future research of family-to-work conflict in particular needs to include detailed information on a very broad range of personal demands and resources.

Overall, the results of the study highlight the importance of including both work and personal factors when studying work/family conflict and burnout. Although the major emphasis was on filling the gaps in knowledge about the effects of a supportive work environment on these outcomes, the findings show the value of linking the perspectives that underlie research in all of these areas, a major contribution of this study.

Implications for Future Research

The study has two important implications for future research on burnout. First, occupation and industry explained relatively little variance in emotional exhaustion, implying that this part of the burnout syndrome, at least, is applicable to workers in wide

range of jobs, rather than affecting mainly the human services workers previous research has focused on. The current study validates previous findings in more homogenous groups that strong work demands contribute most to understanding emotional exhaustion (Lee and Ashforth, 1996). Similar to studies of human service workers, autonomy was found to be a valuable resource, but to have less impact than work demands (Lee and Ashforth, 1996). More research is needed, however, to evaluate whether all of the relationships supported by COR theory and the extensive amounts of previous research also hold for all workers.

Second, the study indicates that family composition may be less important in studying burnout than the way than the boundary between work and family and how well it is managed. Conflict between the two domains and a supportive work environment, which appears to help workers in boundary management, both had significant effects, while marital status and the number of children did not. The implication is that family may have both positive and negative effects, but when conflicts arise between work and family the overall impact is strongly negative. Despite the lack of significant results for having a partner or children, then, nonwork influences may still be important. Conflict that flows from work to family is more destructive than conflict from family to work.

For researchers in the area of work and family, one of the most important implications that this study has is that the nature of the sample matters, particularly where income is concerned. With a few notable exceptions, previous research in the area of work and family has often focused on fairly well educated groups of upper-middle-class workers, such as university employees (e.g. Edwards and Rothbard, 1999, Grandey and Cropanzano, 1999) or graduates (e.g. Thompson *et al.*, 1999). This is understandable, as

such workers are easy for researchers to survey and tend to have experiences similar to their own. However, as Frone *et al.* (1992) found in their examination of the differences between blue- and white-collar workers, it is likely that income and social class may be associated with differences in the work/family interface. Thinking regarding important demands and resources in current research often reflects a middle-class perspective. This study finds support for the notion that the strength of effects of a supportive work environment may not be the same for everyone. It is likely true that the effects of other influences that have been viewed as important may differ by income group as well. For example, spouse work hours have been posited as a "demand" that may lead to greater conflict between work and family, and support found among upper-middle-class dual-income couples (e.g. Ayree, 1993). However, for low-income workers, having a spouse who works longer hours may mean the money to pay for decent day care, and thus reduce conflict. Spouse work hours are unlikely to have a strong impact on high-income workers, because it is easy for them to purchase assistance with household tasks. Indeed, spouse work status had little impact on the level work/family conflict experienced by the executives in Judge *et al.*'s (1994) study. Future research should definitely note the implications associated with choosing a sample that is largely similar in income levels, and more research that compares differences in the work/family interface between income groups is needed. Studies that involve broad samples of workers can contribute much to our understanding of how generalizeable the findings of previous research are.

Overall, the implication is that research should consider a broad array of factors, and may want to draw extensively on other literatures to identify potential influences. Researchers in the area of HR practices and policies, particularly, may benefit from

examining a wide range of theoretical perspectives, as work in this area has tended to be more driven by practical considerations.

Implications for Practice

In today's weakening economy, companies are re-examining the benefits and programs they offer, including those aimed at supporting families. Programs that cannot show their worth are unlikely to be kept. The current study provides some evidence that such policies are effective. In finding that a family-supportive work environment is associated with lower levels of work-to-family conflict, family-to-work conflict, and emotional exhaustion, this study confirms that organizational efforts to be more "family friendly" have effects beyond positive work attitudes. Supportive environments appear to actually reduce conflict and burnout, increasing their potential value for employers, since these outcomes have been associated with negative consequences for employers, including reduced job satisfaction, commitment, and performance (Kossek and Ozeki, 1998; Lee and Ashforth, 1996).

Workers with the highest levels of work and family demands experienced the most conflict and burnout. The study showed that demographic characteristics can be used as rough indicators of family demands. While it is illegal to discriminate against workers because of age, gender, marital status, or because they have several young children, most employers have at least some of this information in their personnel files. This information can be used to get some idea of the kinds of resources and demands their employee have at home. More extensive information is available on work demands through job descriptions. Concerned employers can reduce work demands and help those with high personal demands by supplementing personal resources with a family-supportive environment.

When looking at workers of all income levels, the most effective forms of support were not formal benefits. Supervisors who are supportive when workers experience family-related problems and cultural norms that do not penalize workers for putting family first had the strongest impact on work/family conflict and burnout. This highlights the importance of working to create a supportive culture in addition to introducing policies and benefits. This may be accomplished through supervisor training and a careful re-examination of the criteria commonly used for promotion decisions. Are workers encouraged to keep quiet about family problems, or helped to resolve them? Does turning down a transfer because of a spouse's career significantly reduce promotion opportunities? If so, companies are unlikely to reap benefits from other work/family programs, as workers will not use them (Thompson *et al.*, 1999). On the other hand, once supportive attitudes are entrenched in the company's supervisors and culture, they may provide a relatively low-cost source of competitive advantage, in that such support reduces burnout and family-to-work conflict and is associated with more positive work attitudes (Thompson *et al.*, 1999; Allen, 2000).

Formal flextime policies and the ability to select one's work schedule did not have strong effects. It is likely that having a supervisor who is accommodating when workers need to take time off during the work day for personal or family reasons, represents a more useful source of flexibility for workers, again underscoring the need for making sure that supervisors are supportive. Having the ability to work from home was did not have an impact on work-to-family conflict or burnout, but was associated with more family-to-work conflict. Employers, already leery about allowing workers without strong track records to participate in such programs, may want to continue examining the

effects of telecommuting and other work-from-home programs and should make an effort to set them up in a way that limits potential interruptions.

The effects of working in a family-supportive environment were stronger for workers most likely to need support: those from lower-income households. Lower-income workers particularly showed the highest benefits from greater access to formal dependent care assistance policies. Unfortunately, as the correlation between the benefits index and income level shows, they also reported the least extensive benefits. Given that they do appear to be associated with less negative outcomes, organizations that employ large numbers of low-paid workers in particular may seriously want to consider making a strong effort to create a supportive environment.

Study Limitations and Suggestions for Future Research

This study has both strengths and weaknesses that may affect its contribution to answering the questions outlined in the introduction. A major strength is the size and diversity of the sample used. In general, research in the area of work and family has relied upon small studies, with only a few based on nationally representative samples (Grzywaez, Almeida, and McDonald, 2002). Much of what is accepted as knowledge in this area comes from studies that have drawn smaller samples from homogenous groups with the same occupations, looked at workers in a single organization, or limited their analyses to special groups like parents of preschoolers, dual-career couples, male executives, or career women, making it more difficult to generalize from the results (Kossek and Ozeki, 1998). The large, national sample included in the NSCWF provides for more naturally occurring restriction in variable range, offers sufficient power to detect weaker relationships, and allows for generalization to all types of workers in North

America. In addition, the large number of issues that information was collected on makes it possible to study the relationships between many different factors in work and family life. The large number of study participants at varying income levels made it possible to investigate how effects differ for each group.

There are also some weaknesses associated with using the NSCWF data set, however. First, all of the information for all of the variables measured was collected at a single point in time from a single source. Cross-sectional analyses like this one can imply, but not prove, causal effects. They also may suffer from common method variance, which can inflate the relationships found. In this sense, the study does not improve upon previous work in the area, much of which has relied upon cross-sectional analyses of self-reported estimates provided in response to questions on a single survey. However, the content of the questions somewhat allays these concerns regarding this analysis. Many of the items dealt with straightforward issues like the existence or nonexistence of personnel policies, demographic characteristics and estimates of work hours and family finances, which are unlikely to be affected by attitudes or other biases. Indeed, as far as possible, demand and resource variables in this study were selected because they could be measured in ways that would not be affected by personality, mood, or a common response pattern.

While there is greater concern that common method variance or another factor, such as personality, may inflate the relationships between scales that have an attitudinal component (i.e. ratings of supervisor support, cultural norms, work-to-family and family-to-work conflict, and emotional exhaustion), it is difficult to think of good alternative sources for many of these variables. Information on supervisor support, cultural norms,

benefit availability and the degree of flexibility in work location and timing could be collected from other sources, such as co-workers employed in the same unit. There are tradeoffs, however, in adopting such an approach, because it would logically limit the number of cases studied due to costs and other constraints. Also, it may well be that employee perceptions of how supportive their work environment is are more important than the actual level of support provided. Somewhat allaying concerns about either approach, previous studies which have used multiple sources for some of this information (e.g. Thomas and Ganster (1995) for benefit availability and Demerouti *et al.* (2001) for supervisor support) have found a strong correspondence between individual and outside ratings.

In the case of the three dependent variables, alternate rating sources are even more limited. While it may be possible to get family members to evaluate the degree of work-to-family conflict (as Burke, Weir and DuWors, 1980 did) such an approach may result in unwanted effects, such as underestimates for workers who hide their difficulties and emotions better or perceptions of conflict that incorporate the degree to which family desires or expectations are fulfilled. Multiple raters may be useful, but an accurate measure of the degree of work/family conflict and emotional exhaustion probably requires asking the person involved, not just inferring it from another source. In defense of one-time general self ratings like those used in this study, there are indications that such ratings of work/family conflict do accurately represent changes in mood and energy levels experienced at different times and by moving between the two domains. Two studies that used multiple measures of different types, found strong correspondence between them (Williams and Alliger, 1994; Grzywacz *et al.*, 2002).

Based on this information, it appears likely that the advantages of using self-report measures from a single survey may make up for many of the drawbacks, particularly in a large study of this type. However, future research that does incorporate measures from different sources, such as family members, co-workers, and observers, is also needed to round out the literature.

Personality effects also represent a major concern for this and other studies, as well as an important area for future research. Research on emotional exhaustion has found it to be strongly related to the personality measure of negative affect and also significantly related to positive affect. These measures are intended to capture the tendency to view situations negatively and positively (Wright and Cropanzano, 1998; Iverson, Olekalns, and Erwin, 1998). Personality may be one reason for the close relationships found between the perceptual variables included in this study (supervisor support, cultural norms, work-to-family and family-to-work conflict, and emotional exhaustion), both because it affects the tendency to provide negative or positive analyses of the situation, and because it may affect how people respond to stress. As Iverson *et al.* (1998) noted, negative affectivity may lead people to interpret situations negatively and emphasize negative information, which would mean those with more negative outlooks may select negative responses to all items regardless of the actual situation, increasing relationships found. People who are more negative in general may also make less use of direct coping strategies (Iverson *et al.*, 1998), increasing the ill effects of stresses and reducing the effectiveness of support. Future research in this area, then, should definitely make an effort to incorporate these variables and estimate their influence on the relationships found here.

Conclusions

A single study such as this one cannot and should not be considered a means of providing a definitive answer to the questions posed. Rather, it should be viewed as contributing to our understanding in the context of a program of research employing a variety of methods. The goal of this dissertation is to help fill in gaps in our understanding of the effects of working in a family-supportive work environment by looking at how this is related to work-to-family conflict, and family-to-work conflict and burnout, within the context of other important influences at work and at home. The study found that more positive outcomes were associated with working in supportive environments. The results agree with previous findings that informal support, such as understanding supervisors and a culture that doesn't penalize workers for putting family first, are perhaps the most important elements of a supportive environment for the majority of workers (Allen, 2001; Thompson *et al.*, 1999; Thomas and Ganster, 1995). While childless workers and those from higher-income families may have less use for dependent care benefits, they appear to have benefits beyond reducing work/family conflict and are among the most effective resources for those who have lower financial resources. Employers who draw their workers from the ranks of lower-income families in particular may want to seriously consider working to create a family-supportive environment.

Why should employers care? Emotional exhaustion and work/family conflict have been closely associated with reduced job satisfaction (Kossek and Ozeki, 1998; Lee and Ashforth, 1996) lower organizational commitment (Wiley, 1987; Netemeyer *et al.*, 1996; Lee and Ashforth, 1996) and a greater intention to quit (Netemeyer *et al.*, 1996;

Lee and Ashforth, 1996). Family-supportive benefits and informal support, on the other hand, have been associated with higher job satisfaction (Allen, 2001), greater loyalty (Roehling *et al.*, 2001) increased organizational commitment (Grover and Crooker, 1995; Allen, 2001) and lower turnover intentions (Allen, 2001; Grover and Crooker, 1995; Thompson *et al.*, 1999) in addition to the effects found here. This study supports others in finding that family-friendly work environments have benefits for both workers and organizations.

APPENDIX A: SURVEY ITEMS AND SCALES

APPENDIX A: SURVEY ITEMS AND SCALES

Control Variables

Race

What is your race?

White..... 1
Black, African American..... 2
Other, including mixed..... 3

Occupation

What kind of work do you do in this job? That is, what is your occupation?

Executive/administrative/managerial..... 1
Professional..... 2
Technical..... 3
Sales..... 4
Administrative support..... 5
Service..... 6
Production/operator/repair..... 7

Industry

What kind of business or industry is this company or organization involved in? What do they make or do where you work? What is the main thing?

Goods Producing..... 1
Service..... 2

Personal Demands and Resources

Gender

(This was coded by the interviewer based on responses to questions.)

Elder/Disabled Care Time Demands

Do you currently provide special attention or care for someone 65 years old or older?

About how much time do you spend per week providing care or assistance in person – such as meal preparation, household work, physical care, transportation to medical services, etc.?

And about how much time do you spend per week doing other things – such as calling on the telephone to see whether everything's alright, arranging for services, handling finances, etc.?

Do you currently provide special assistance or care for a disabled non-elderly adult?

About how much time do you spend per week providing this special care or assistance?

(Responses were summed to estimate total hours spent per week)

Number of Children 0-12 and 13-18

Do you have any children who live with you for a least half the year – including natural, adopted, foster, or stepchildren for whom you are responsible, or not? How many?

Do you have any children who live with you for less than half the year, but for whom you are the legal guardian for the entire year – such as a child away at school or a disabled child in long-term care? How many?

Of these children, how old is your youngest child? How old is your next-youngest child?

(Responses used to compute the number of children in each age group.)

Partner

Are you presently married, living with someone as a couple, single and never married, divorced, widowed or separated? Do you live with your spouse, or not?

(Those who are married and living with their spouse or living with someone as a couple were coded as 1, having a partner, others were coded as 0, no partner)

Familial Child Care

What is the main child care arrangement you use for your youngest child while you are working at your job?

Age

In what month and year you were born?

Household Income Level

What was your family's total income from all sources before taxes in 1996? A rough guess will be fine.

(Household income estimates were used to place respondents into three categories: 1, low income ($27,760 or below, in the bottom 40% of US households for 1996 as

estimated by the UC Census Bureau) 2, middle income (between $27,761 and $68,015, or between the 40th and 80th percentiles for US households) and high income (above $68,015, or in the top 20% of US households).

Work Demands and Resources

Total Weekly Hours Worked

How many paid hours a week are you regularly scheduled to work? Don't include any paid or unpaid extra hours that you put in beyond your official work week.

On average, how many additional hours a week do you do any work related to this job – including both unpaid and paid overtime worked at any location?

On average, how many hours a week do you work at your other job (or jobs)?

(Total hours is the sum of responses to these 3 items; respondents were told the totals and asked "Does this seem about right for your typical week?")

Regular/Irregular Schedule

Which of the following best describes your work schedule at your main job – a regular daytime schedule, a regular evening shift, a regular night shift, a rotating shift – one that changes periodically from day to evening or night, a split shift consisting of two distinct periods each workday, or a flexible or variable schedule with no set hours?

(Responses recoded so that a regular daytime shift =0, all others =1)

Autonomy

I have the freedom to decide what I do on my job. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?

It is basically my own responsibility to decide how my job gets done.

I have a lot of say about what happens on my job.

Tenure

How long have you worked for this employer?

Family-Supportive Organizational Environment

Time Flexibility

Are you allowed to choose your own starting and quitting times within some range of hours, or not?

Are you allowed to change your starting and quitting times on a daily basis or must you stick to the times you choose?

Overall, how much control would you say you have in scheduling your work hours – complete control, a lot, some, very little, or none?

Location Flexibility

Including only regularly scheduled hours – not overtime or extra time worked – how many hours a week do you usually work at home? *(Recoded so that those who spend any time working at home coded as 1, others coded as 0.)*

Would you be allowed to spend part of your regular workweek working at home if you asked? Do not include extra hours that are either paid or unpaid. *(Recoded so that no = 0, maybe or yes =1, and combined with responses to previous question, recoded so 0=not available and 1= maybe, yes, or currently work at home =1.)*

Dependent Care Programs

Does your employer have a program or service that helps employees find child care if they need it, or not?

Does your employer have a program that helps employees get information about elder care or find services for elderly relatives if they need them, or not?

Does your employer operate or sponsor a child care center for the children of employees at or near your location, or not?

Does your employer provide employees with any direct financial assistance for child care – that is, vouchers, cash, or scholarships, or not?

Does your employer have a program that allows employees to put part of their income before taxes in an account that can be used to pay for child care or other dependent care? These programs are sometimes called "cafeteria plans" or "dependent care assistance plans."

Are women who work for your employer able to take time off work to recuperate from childbirth without endangering their jobs, or not?

Are men who work for your employer able to take time off work when they become fathers without endangering their jobs, or not?

Are you allowed to take a few days off to care for a sick child without losing pay, without using vacation days, and without having to make up some other reason for your absence, or not?

Supervisor Support

My supervisor accommodates me when I have family or personal business to take care of – for example, medical appointments, meeting with child's teacher, etc. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?

My supervisor is understanding when I talk about personal or family issues that affect my work.

I feel comfortable bringing up personal or family issues with my supervisor.

My supervisor really cares about the effects that work demands have on my personal and family life.

My supervisor is fair and doesn't show favoritism in responding to employees' personal or family needs.

Cultural Norms

At my place of employment, employees have to choose between advancing in their jobs or devoting attention to their family or personal lives. Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree?

At the place where you work, employees who ask for time off for family reasons or try to arrange different schedules or hours to meet their personal or family needs are less likely to get ahead in their jobs or careers.

At my place of employment, employees who put their family or personal needs ahead of their jobs are not looked on favorably.

If you have a problem managing your work and family responsibilities, the attitude at my place of employment is: "You made your bed, now lie in it!"

There is an unwritten rule at my place of employment that you can't take care of family needs on company time.

Dependent Variables

Work-to-Family Conflict

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?

In the past three months, how often have you not had the energy to do things with your family or other important people in your life because of your job?

In the past three months, how often have you not been able to get everything done at home each day because of your job?

In the past three months, how often have you not had enough time for yourself because of your job? Would you say very often, often, sometimes, rarely, or never?

Family-to-Work Conflict

How often has your family or personal life kept you from getting work done on time at your job?

How often has your family or personal life kept you from taking on extra work at your job?

How often has your family or personal life kept you from doing as good a job at work as you could?

How often has your family or personal life drained you of the energy you needed to do your job?

How often has your family or personal life kept you from concentrating on your job?

Emotional Exhaustion

How often during the past three months have you felt used up at the end of the workday? Would you say very often, often, sometimes, rarely, or never?

During the past three months, how often have you felt emotionally drained from your work?

How often during the past three months have you felt tired when you got up in the morning and had to face another day on the job?

How often during the past three months have you felt burned out or stressed by your work?

APPENDIX B: SUPPLEMENTARY TABLES

Table B1:
Results of Principal Components Factor Analyses: Work Resources and Environment

Item	Factor 1 Supervisor Support	Factor 2 Cultural Norms	Factor 3 Flexibility	Factor 4 Autonomy
My supervisor is understanding when I talk about personal or family issues that affect my work.	***.83***	.19	.03	.09
My supervisor really cares about the effects that work demands have on my personal and family life.	***.81***	.17	.08	.19
I feel comfortable bringing up personal or family issues with my supervisor.	***.80***	.13	.07	.09
My supervisor is fair and doesn't show favoritism in responding to employees' personal or family needs.	***.72***	.19	.05	.13
My supervisor accommodates me when I have family or personal business to take care of – for example, medical appointments, meeting with child's teacher, etc.	***.71***	.22	.09	.12
At my place of employment, employees who put their family or personal needs ahead of their jobs are not looked on favorably.	.14	***.76***	.06	.07
At my place of employment, employees have to choose between advancing in their jobs or devoting attention to their family or personal lives.	.13	***.75***	-.02	.05
If you have a problem managing your work and family responsibilities, the attitude at my place of employment is: "You made your bed, now lie in it!"	.26	***.70***	.01	.11
There is an unwritten rule at my place of employment that you can't take care of family needs on company time.	.11	***.63***	.19	.15
Please tell me how much you agree with the following statement: At the place where you work, employees who ask for time off for family reasons or try to arrange different schedules or hours to meet their personal or family needs are LESS likely to get ahead in their jobs or careers.	.18	***.58***	.09	.05

Table B1 (continued)

Item	Factor 1 Supervisor Support	Factor 2 Cultural Norms	Factor 3 Flexibility	Factor 4 Autonomy
Are you allowed to change your starting and quitting times on a daily basis or must you stick to the times you choose?	.03	.09	***.85***	.06
Are you allowed to choose your own starting and quitting times within some range of hours, or not?	.04	.12	***.84***	.08
Overall, how much control would you say you have in scheduling your work hours – complete control, a lot, some, very little, or none?	.12	.14	***.55***	.37
Do you (or could you arrange to) work some of your regularly scheduled work hours from home?	.04	-.03	***.51***	.13
I have the freedom to decide what I do on my job.	.16	.11	.21	***.75***
It is basically my own responsibility to decide how my job gets done.	-.02	.04	.03	***.75***
I have a lot of say about what happens on my job.	.21	.09	.20	***.73***
Eigenvalue (rotation results in parentheses)	5.02 (3.23)	2.14 (2.57)	1.56 (2.16)	1.19 (1.94)
Percentage of Total Variance Explained	29.51 (19.00)	12.56 (15.14)	9.20 (12.67)	6.94 (11.40)

Table B1 (Continued)
Results of Principal Components Factor Analyses: Outcome Variables

Item	Factor 1 Emotional Exhaustion	Factor 2 Family-to-Work Conflict	Factor 3 Work-to-Family Conflict
How often during the past three months have you felt burned out or stressed by your work?	***.83***	.15	.24
How often during the past three months have you felt emotionally drained from your work?	***.79***	.14	.28
How often during the past three months have you felt used up at the end of the workday?	***.79***	.12	.29
How often during the past three months have you felt tired when you got up in the morning and had to face another day on the job?	***.79***	.10	.20
How often has your family or personal life kept you from doing as good a job at work as you could?	.12	***.82***	.09
How often has your family or personal life kept you from getting work done on time at your job?	.03	***.76***	.15
How often has your family or personal life drained you of the energy you needed to do your job?	.23	***.70***	.12
How often has your family or personal life kept you from taking on extra work at your job?	.01	***.68***	.23
How often has your family or personal life kept you from concentrating on your job?	.21	***.67***	.11
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?	.20	.16	***.86***
In the past three months, how often have you not had enough time for yourself because of your job?	.22	.17	***.83***
In the past three months, how often have you NOT been able to get everything done at home each day because of your job?	.26	.16	***.71***
In the past three months, how often have you NOT had the energy to do things with your family or other important people in your life because of your job?	.42	.17	***.69***
Eigenvalue (rotation results in parentheses)	5.46 (3.00)	1.96 (2.82)	1.18 (2.78)
Percentage of total variance explained	42.02 (23.08)	15.08 (21.72)	9.05 (21.36)

Appendix Table B2: Intercorrelations for Lower-Income Group

	Mean	S.D.	1	2	3	4	5	6
1. Manager	.07	.26						
2. Professional	.09	.29	-.09*					
3. Technical	.04	.19	-.06	-.06				
4. Sales	.11	.31	-.10**	-.11**	-.07			
5. Admin.	.17	.38	-.13**	-.15**	-.09*	-.16**		
6. Service	.21	.40	-.14**	-.16**	-.10**	-.18**	-.23**	
7. Prod/op/repair	.31	.46	-.19**	-.22**	-.14**	-.24**	-.31**	-.34**
8. Industry[1]	.79	.41	.12**	.11**	.03	.17**	.15**	.25**
9. White	.71	.46	.04	.09*	.05	-.02	-.01	-.07
10. Black	.19	.39	-.04	-.04	-.06	.04	.00	.08*
11. Other race	.10	.31	-.01	-.08*	.00	-.03	.01	-.01
12. Sex	1.6	.49	.07	.07	.01	.10**	.24**	.05
13. Eld/oth care[2]	2.3	7.38	-.02	.07	.02	-.04	-.04	.05
14. # kids < 13	.51	.90	-.01	-.06	-.01	-.05	.03	-.04
15. # kids 13-18	.21	.53	.06	-.06	-.01	-.01	-.05	.02
16. Partner	.32	.47	-.06	-.11**	.00	-.07	-.12	.04
17. Familial care[3]	.21	.41	.02	-.05	-.07	-.05	-.02	.03
18. Age	38.73	13.51	.01	-.01	-.07	.02	.02	.02
19.Work hrs/wk	42.27	12.91	.03	.01	.03	-.09*	.03	-.13**
20. Irreg. sched.	.35	.48	-.09*	-.07	-.04	.15**	-.12**	.15**
21. Autonomy	2.87	.75	.11**	.07	.07	-.02	-.04	-.01
22. Tenure	4.75	6.36	.01	.00	-.03	-.07	.03	-.01
23. Flex time	1.23	1.23	.09*	.12**	.05	.05	-.05	.03
24. Flex place	.16	.37	.12**	.19**	.07	.03	-.02	-.06
25. Dep. care[4]	2.92	1.48	.06	.07*	.14**	-.08*	.07	-.06
26. Sup. support	3.30	.68	.04	.06	-.03	.05	.06	-.02
27. Cult. norms	2.81	.76	.06	.11**	.10**	.03	.02	-.11**
28. Tot. environ.[5]	8.67	2.07	.10**	.17**	.11**	.02	-.02	-.07
29. WFC[6]	2.82	1.06	-.01	-.02	.05	-.02	.01	-.05
30. FWC[7]	1.90	.76	.00	.00	-.01	-.03	.01	.01
31. EE[8]	2.93	1.12	.06	.06	.03	-.07	-.01	.00

Pearson zero-order correlations between major study variables. 1. Goods-producing =1, service =2. 2. Hours per week caring for elders and disabled adults 3. Most child care provided by a family member 4. Number of dependent care benefits 5. Total environment 6. WFC = work-to-family conflict 7. FWC = family-to-work conflict 8. EE = emotional exhaustion. Due to listwise deletion for missing data, Ns range from 670 to 734. * significant at the .05 level. ** significant at the .01 level.

Appendix Table B2: Intercorrelations for Lower-Income Group (Continued)

	7	8	9	10	11	12	13	14
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry	-.59**							
9. White	-.02	.02						
10. Black	-.03	.03	-.75**					
11. Other race	.07	-.06	-.53**	-.17**				
12. Sex	-.40**	.26**	-.04	.11**	-.08*			
13. Eld/oth care	-.03	.01	-.04	.06*	-.03	.05		
14. # kids < 13	.09	-.06	-.15**	.08*	.13**	.01	-.05	
15. # kids 13-18	.02	.03	-.08*	.08*	.02	.09*	.02	.07
16. Partner	.22**	-.16**	.09**	-.06	.10	-.24**	.00	.26**
17. Familial care	.07	-.05	-.02**	.09*	.11**	-.06	-.05	.69**
18. Age	-.02	-.02	-.15**	-.06	-.09*	.19**	.07	-.24**
19.Work hrs/wk	.11**	-.07	-.03	.03	.00	-.19**	-.01	.02
20. Irreg. sched.	-.03	.07*	-.01	-.02	.05	-.08*	-.02	-.04
21. Autonomy	-.08	.06	.01	-.10**	.11**	-.07	.02	-.04
22. Tenure	.04	-.10**	.07*	-.04	-.05	.05	.01	-.15**
23. Flex time	-.16**	.10**	.07	-.06	-.02	-.03	.04	-.07
24. Flex place	-.16**	.10**	-.01	.01	.00	.01	.00	.01
25. Dep. care	-.08*	.10**	.02	.02	-.05	.00	-.04	-.09
26. Sup. support	-.06	.11**	.02	-.01	-.03	.06	-.06	-.02
27. Cult. norms	-.12**	.05	.06	-.01	-.08*	.16**	-.04	.00
28. Tot. environ.	-.19**	.16**	.07	-.04	-.06	.06	-.04	-.06
29. WFC	.07	-.04	.03	-.03	.00	-.04	.00	.11**
30. FWC	.00	-.03	-.02	-.00	.00	.00	.07	.08*
31. EE	.00	-.01	.01	.00	-.01	.03	-.01	.03

Appendix Table B2: Intercorrelations for Lower-Income Group (Continued)

	15	16	17	18	19	20	21	22
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner	.07							
17. Familial care	.06	.31**						
18. Age	.07	.06	-.18**					
19.Work hrs/wk	.03	.02	-.03	-.14**				
20. Irreg. sched.	.00	-.03	-.01	-.13**	-.02			
21. Autonomy	-.01	.05	-.01	.04	.03	-.02		
22. Tenure	.00	.04	-.14**	.44**	-.02	-.08*	.05	
23. Flex time	.05	.04	-.03	.06	-.06	.02	.36**	.08
24. Flex place	.00	.01	.05	-.11**	.11**	.00	.13**	-.02
25. Dep. care	-.08*	-.07	-.10**	-.08*	.10**	- .05	.15**	.04
26. Sup. support	-.05	.01	-.01	.09*	-.11**	-.08*	.29**	.05
27. Cult. norms	-.05	-.09*	.02	.01	-.05	-.08*	.23**	.03
28. Tot. environ.	-.09*	-.06	-.03	-.05	-.03	-.07	.41**	-.01
29. WFC	.09*	.06	.11**	-.12**	.18**	.11**	-.19**	-.03
30. FWC	.08*	.03	.08*	-.07*	.03	.06	-.07	.02
31. EE	.06	-.07*	.02	-.14**	.17**	.02	-.23**	.02

Appendix Table B2: Intercorrelations for Lower-Income Group (Continued)

	23	24	25	26	27	28	29	30
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner								
17. Familial care								
18. Age								
19.Work hrs/wk								
20. Irreg. sched.								
21. Autonomy								
22. Tenure								
23. Flex time								
24. Flex place	.15**							
25. Dep. care	.14**	.07						
26. Sup. support	.17**	.06	.21**					
27. Cult. norms	.22**	.07	.17**	.40**				
28. Tot. environ.	.67**	.30**	.56**	.64**	.67**			
29. WFC	-.13**	.01	-.20**	-.29**	-.26**	-.33**		
30. FWC	.01	.04	-.11**	-.18**	-.22**	-.16**	.42**	
31. EE	-.14**	.04	-.15**	-.37**	-.29**	-.34**	.56**	.38**

Appendix Table B3: Intercorrelations for Middle-Income Group

	Mean	S.D.	1	2	3	4	5	6
1. Manager	.14	.35						
2. Professional	.18	.39	-.20**					
3. Technical	.06	.23	-.10**	-.12**				
4. Sales	.11	.31	-.14**	-.17**	-.08**			
5. Admin.	.16	.36	-.18**	-.21**	-.10**	-.15**		
6. Service	.08	.28	-.12**	-.14**	-.07**	-.11**	-.13**	
7. Prod/op/repair	.27	.44	-.25**	-.29**	-.15**	-.21**	-.26**	-.18**
8. Industry[1]	.77	.42	.02	.14**	.03	.15**	.15**	.16**
9. White	.83	.38	.02	.04	.01	.02	.01	.05
10. Black	.10	.30	-.02	-.04	.03	-.06*	.02	.04
11. Other race	.08	.27	.00	-.01	-.02	.04	.00	.02
12. Sex	1.49	.50	.03	.13**	.07**	.00	.25**	.02
13. Eld/oth care[2]	1.56	6.25	-.05	-.02	-.01	-.05	.01	.07*
14. # kids < 13	.65	.95	-.01	-.06*	-.01	-.01	-.03	.03
15. # kids 13-18	.25	.58	-.02	.02	-.02	.06*	-.06*	-.01
16. Partner	.64	.48	-.04	-.08**	-.03	-.01	.06*	-.01
17. Familial care[3]	.25	.43	-.03	-.03	-.06*	.05	-.07**	.03
18. Age	39.54	11.13	.00	-.02	-.01	-.04	.08**	-.07*
19.Work hrs/wk	46.65	13.35	.09**	.01	-.01	.01	-.18**	-.06*
20. Irreg. sched.	.27	.45	-.09**	-.11**	-.06*	.10**	-.10**	.18**
21. Autonomy	3.03	.74	.15**	.08**	-.06*	.02	-.04	-.06*
22. Tenure	7.75	7.98	.03	-.04	.03	-.11**	.03	-.08**
23. Flex time	1.47	1.46	.15**	.05	.02	.09**	.03	.03
24. Flex place	.24	.68	.10**	.15**	.05	.04	-.07*	-.04
25. Dep. care[4]	3.31	.73	.05	.10**	.01	-.11**	.07*	-.01
26. Sup. support	3.34	2.17	.05	.01	-.04	.04	.06*	.00
27. Cult. norms	2.97	1.03	.10**	.08**	.00	-.01	-.01	-.01
28. Tot. environ.[5]	9.26	.70	.15**	.12**	.01	.02	.01	-.03
29. WFC[6]	2.95	1.03	.02	-.01	.01	.03	.01	-.05
30. FWC[7]	1.92	.70	-.02	.11**	-.03	.03	.01	-.05
31. EE[8]	3.02	1.01	.01	.02	.00	.03	-.03	-.03

Pearson zero-order correlations between major study variables. 1. Goods-producing =1, service =2. 2. Hours per week caring for elders and disabled adults 3. Most child care provided by a family member 4. Number of dependent care benefits 5. Total environment 6. WFC = work-to-family conflict 7. FWC = family-to-work conflict 8. EE = emotional exhaustion. Due to listwise deletion for missing data, Ns range from 1,264 to 1,329. * significant at the .05 level. ** significant at the .01 level.

Appendix Table B3: Intercorrelations for Middle-Income Group (Continued)

	7	8	9	10	11	12	13	14
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry	-.48**							
9. White	.01	.04						
10. Black	.04	.04	-.72**					
11. Other race	-.02	.01	-.63**	-.10**				
12. Sex	-.40**	.22**	-.01	.04	-.03			
13. Eld/oth care	.04	-.01	-.06*	.06*	.02	.05		
14. # kids < 13	.07*	-.08**	-.03	.02	.02	-.08**	-.06*	
15. # kids 13-18	.02	.00	-.04	.05	.00	.03	.03	-.01
16. Partner	.07*	-.05	.10**	-.07*	-.06*	-.03	-.03	.28**
17. Familial care	.08**	-.10**	-.02	.01	.02	-.15**	-.06**	.66**
18. Age	.02	.01	.05	.02	-.09**	.06*	.10**	-.24**
19.Work hrs/wk	.11**	-.09**	-.07*	.07**	.02	-.26**	-.01	.07*
20. Irreg. sched.	.09**	-.01	-.02	.03	-.01	-.07**	.06*	.02
21. Autonomy	-.11**	.03	.07*	-.11**	.03	-.04	-.03	.01
22. Tenure	.10**	-.06*	-.01	.07*	-.06*	-.05	.02	-.10**
23. Flex time	-.19**	.09**	.03	.03	.01	.00	.04	.04
24. Flex place	-.18**	.10**	-.03	.05	-.00	.01	-.01	.02
25. Dep. care	-.10**	.13**	-.14**	.11**	.07**	.02	.00	-.04
26. Sup. support	-.10**	.06*	.06*	-.08**	.01	.04	.00	-.03
27. Cult. norms	-.13**	.04	.10**	-.07**	-.06*	.06*	-.04	.03
28. Tot. environ.	-.24**	.14**	.01	-.02	.01	.05	-.03	-.03
29. WFC	-.02	.00	-.03	.02	.01	.09**	.03	.12
30. FWC	-.06*	.01	-.01	-.01	.03	.04	.05	.08**
31. EE	.01	-.01	-.01	.03	-.02	.07*	.02	.01

Appendix Table B3: Intercorrelations for Middle-Income Group (Continued)

	15	16	17	18	19	20	21	22
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner	.11**							
17. Familial care	.07*	.32**						
18. Age	.09**	.07**	-.19**					
19.Work hrs/wk	-.02	-.10**	.03	-.03				
20. Irreg. sched.	-.04	-.04	.05	-.08**	.07*			
21. Autonomy	.00	-.01	.04	.04	.02	-.07*		
22. Tenure	.01	-.01	-.06*	.45**	.08**	-.06*	.03	
23. Flex time	-.03	-.05	.01	-.07*	.01	.02	.33**	-.10**
24. Flex place	.03	-.05	-.01	-.09**	.05	-.02	.19**	-.06*
25. Dep. care	.03	-.05	-.02	-.01	.02	-.04	.12**	.10*
26. Sup. support	.04	.04	-.03	.03	-.05	-.06*	.32**	-.05
27. Cult. norms	.02	.03	.02	-.04	-.07*	-.09**	.25**	-.06*
28. Tot. environ.	.02	-.03	-.01	-.05	-.02	-.06	.42**	-.06*
29. WFC	.09**	.03	.06*	-.08**	.25**	.09**	-.15**	-.06*
30. FWC	.02	-.05	.00	-.04	.07*	-.03	.01	.00
31. EE	.00	-.04	.00	-.07*	.20**	.03	-.25**	-.04

Appendix Table B3: Intercorrelations for Middle-Income Group (Continued)

	23	24	25	26	27	28	29	30
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin. support								
6. Service								
7. Prod/op/repair								
8. Industry[1]								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care[2]								
14. # kids < 13								
15. # kids 13-18								
16. Partner								
17. Familial care[3]								
18. Age								
19. Work hrs/wk								
20. Irreg. sched.								
21. Autonomy								
22. Tenure								
23. Flex time								
24. Flex place	.31**							
25. Dep. Care[4]	.13**	.08**						
26. Sup. support	.18**	.09**	.18**					
27. Cult. norms	.22**	.07*	.17**	.43**				
28. Tot. environ.[5]	.70**	.42**	.53**	.62**	.64**			
29. WFC[6]	-.10**	.03	-.12**	-.21**	-.27**	-.24**		
30. FWC[7]	.01	.14**	-.03	-.08**	-.19**	-.07*	.40**	
31. EE[8]	-.12**	.01	-.12**	-.29**	-.27**	-.28**	.61**	.32**

Appendix Table B4: Intercorrelations for Higher-Income Group

	Mean	S.D.	1	2	3	4	5	6
1. Manager	.27	.44						
2. Professional	.28	.45	-.37**					
3. Technical	.05	.22	-.14**	-.15**				
4. Sales	.10	.30	-.20**	-.21**	-.08*			
5. Admin. support	.13	.34	-.23**	-.24**	-.09*	-.13**		
6. Service	.05	.21	-.13**	-.14**	-.05	-.08	-.09*	
7. Prod/op/repair	.13	.33	-.23**	-.24**	-.09*	-.13**	-.15**	-.08*
8. Industry[1]	.78	.41	-.08*	.11**	.09*	.10	.09*	.10*
9. White	.85	.36	.01	.05	-.06*	.03	-.06	-.01
10. Black	.07	.26	.01	-.02	.05	-.08	.00	.03
11. Other race	.08	.28	-.03	-.05	.03	.03	.07	-.01
12. Sex	1.45	.50	-.05	.06	-.02	-.04	.29**	.01
13. Eld/oth care[2]	1.55	5.32	-.07	-.02	.01	-.04	.03	.15**
14. # kids < 13	.56	.86	-.01	.03	.02	.03	-.06	.00
15. # kids 13-18	.29	.61	.00	.01	.05	-.05	-.03	.02
16. Partner	.83	.37	.06	.03	-.01	-.10*	.00	.02
17. Familial care[3]	.21	.41	-.04	-.03	-.04	.05	-.03	.08*
18. Age	42.33	10.57	.12**	.09*	-.07	-.12**	-.02	-.04
19.Work hrs/wk	49.21	13.63	.15**	.03	-.11**	-.11**	-.20**	-.11**
20. Irreg. sched.	.22	.41	.10*	-.02	.00	.10	-.14**	.03
21. Autonomy	3.19	.71	.20**	-.02	-.13**	.06	-.07	-.07
22. Tenure	9.83	9.02	.08*	.04	.04	-.10*	-.11**	.00
23. Flex time	2.06	1.44	.28**	-.05	-.05	.09*	-.12**	-.03
24. Flex place	.36	.48	.16**	.03	-.06	.15**	-.15**	-.04
25. Dep. care[4]	3.57	1.53	.09*	.04	.07	-.08	-.05	-.04
26. Sup. support	3.36	.61	.03	.05	-.01	.01	.03	-.05
27. Cult. norms	3.07	.67	.09*	-.04	.01	.08*	.02	-.09*
28. Tot. environ.[5]	10.11	2.21	.23**	-.01	-.01	.08*	-.08	-.08
29. WFC[6]	3.01	1.0	.05	.11**	.01	-.11**	-.03	-.07
30. FWC[7]	2.00	.62	.06	.10**	-.05	-.01	-.06	.00
31. EE[8]	2.98	.97	-.04	.07	.00	-.07	.00	-.01

Pearson zero-order correlations between major study variables. 1. Goods-producing =1, service =2. 2. Hours per week caring for elders and disabled adults 3. Most child care provided by a family member 4. Number of dependent care benefits 5. Total environment 6. WFC = work-to-family conflict 7. FWC = family-to-work conflict 8. EE = emotional exhaustion. Due to listwise deletion for missing data, Ns range from 613 to 640. * significant at the .05 level. ** significant at the .01 level.

Appendix Table B4: Intercorrelations for Higher-Income Group (Continued)

	7	8	9	10	11	12	13	14
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry	-.34**							
9. White	-.01	-.03						
10. Black	.02	.03	-.65**					
11. Other race	-.01	.01	-.70**	-.08*				
12. Sex	-.26**	.23**	-.03	-.02	.05			
13. Eld/oth care	.03	.06	-.06	.08*	.01	.04		
14. # kids < 13	.00	.03	-.02	.05	-.02	-.07	-.10**	
15. # kids 13-18	.02	-.02	.01	.08	-.09*	.02	.02	-.04
16. Partner	-.03	-.02	.04	-.02	-.03	.08*	.01	.23**
17. Familial care	.06	-.02	-.04	.03	.02	-.11**	-.04	.66**
18. Age	-.09*	.01	.11**	-.02	-.12**	-.03	.07	-.22**
19.Work hrs/wk	.20**	-.17**	-.01	.03	-.01	-.27**	.06	.06
20. Irreg. sched.	.12**	.01	-.01	.01	.00	-.07	.00	.01
21. Autonomy	-.09*	-.05	.11**	-.06	-.09*	-.13**	-.05	.00
22. Tenure	.02	-.02	.03	.04	-.07	-.09*	.04	-.08*
23. Flex time	-.22**	.01	.03	-.05	.00	-.13**	-.04	.02
24. Flex place	-.18**	.06	.04	.04	-.01	-.06	.04	.06
25. Dep. care	-.07	.03	-.07	.05	.04	-.03	-.03	.11**
26. Sup. support	-.10*	.01	.07	-.01	-.07	-.01	-.03	-.01
27. Cult. norms	-.12**	-.04	.17**	-.11**	-.12**	.03	-.04	-.03
28. Tot. environ.	-.24**	.02	.08*	-.05	-.06	-.08	-.03	.06
29. WFC	-.04	.02	-.02	-.02	.04	.07	.03	.12**
30. FWC	-.12**	.02	-.06	-.02	.10*	.06	-.01	.22**
31. EE	.03	.04	-.08*	.04	.07	.15**	.05	.05

Appendix Table B4: Intercorrelations for Higher-Income Group (Continued)

	15	16	17	18	19	20	21	22
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner	.11**							
17. Familial care	.05	.21**						
18. Age	.10*	.27**	-.14**					
19.Work hrs/wk	-.04	.02	.10*	.01				
20. Irreg. sched.	-.04	-.11**	.04	-.19**	.04			
21. Autonomy	.00	.06	-.01	.10**	.10*	.01		
22. Tenure	.03	.16**	-.07	.50**	.04	-.09*	.01	
23. Flex time	.01	.01	.04	.02	.08	.08	.40**	-.04
24. Flex place	.00	.04	.08*	.06	.15**	.04	.24**	.00
25. Dep. care	-.03	.00	.06	-.01	.12**	.11**	.13**	.13*
26. Sup. support	.03	.06	-.05	.08	.01	.01	.30**	.01
27. Cult. norms	-.03	.04	-.02	.08	-.03	.02	.30**	.01
28. Tot. environ.	.00	.04	.04	.08	.10*	.09*	.46**	.05
29. WFC	.00	.04	.08*	-.10*	.25**	.00	-.10*	-.04
30. FWC	.04	.02	.16**	-.11**	.04	.02	-.05	.00
31. EE	-.08*	-.01	.03	-.18**	.19**	.00	-.23**	-.10*

Appendix Table B4: Intercorrelations for Higher-Income Group (Continued)

	23	24	25	26	27	28	29	30
1. Manager								
2. Professional								
3. Technical								
4. Sales								
5. Admin.								
6. Service								
7. Prod/op/repair								
8. Industry								
9. White								
10. Black								
11. Other race								
12. Sex								
13. Eld/oth care								
14. # kids < 13								
15. # kids 13-18								
16. Partner								
17. Familial care								
18. Age								
19.Work hrs/wk								
20. Irreg. sched.								
21. Autonomy								
22. Tenure								
23. Flex time								
24. Flex place	.29**							
25. Dep. care	.20**	.09*						
26. Sup. support	.19**	.10*	.21**					
27. Cult. norms	.25**	.08*	.18**	.45**				
28. Tot. environ.	.74**	.44**	.56**	.59**	.63**			
29. WFC	-.10**	.04	-.01	-.25**	-.26**	-.19**		
30. FWC	.00	.16**	.01	-.08*	-.17**	-.02	.43**	
31. EE	-.17**	-.01	-.07	-.29**	-.33**	-.29**	.62**	.34**

Figure 3: Interaction of Income and Total Environment

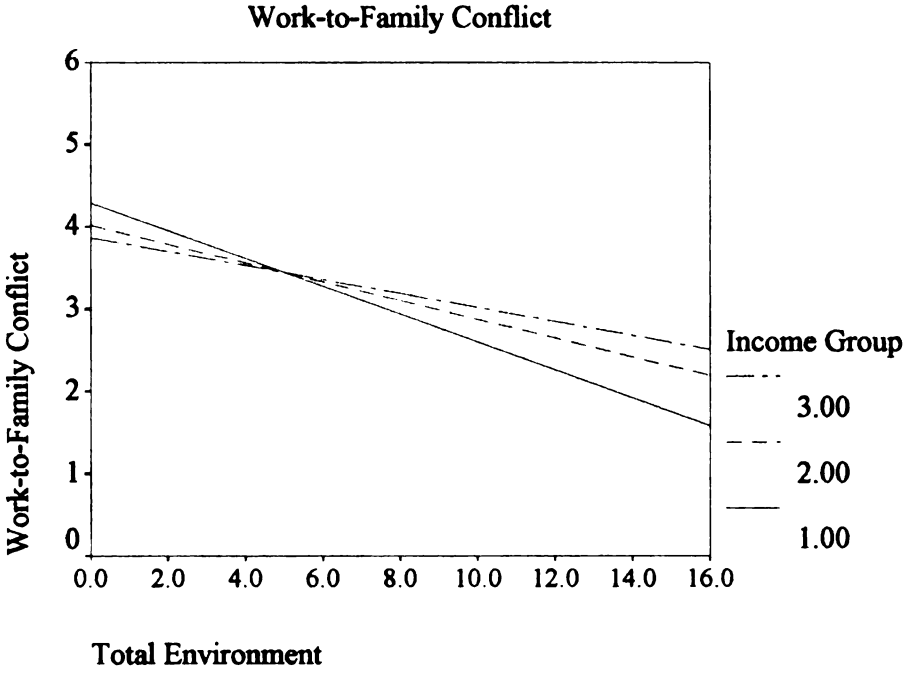


Figure 4: Interaction of Income and Dependent Care Benefit Index

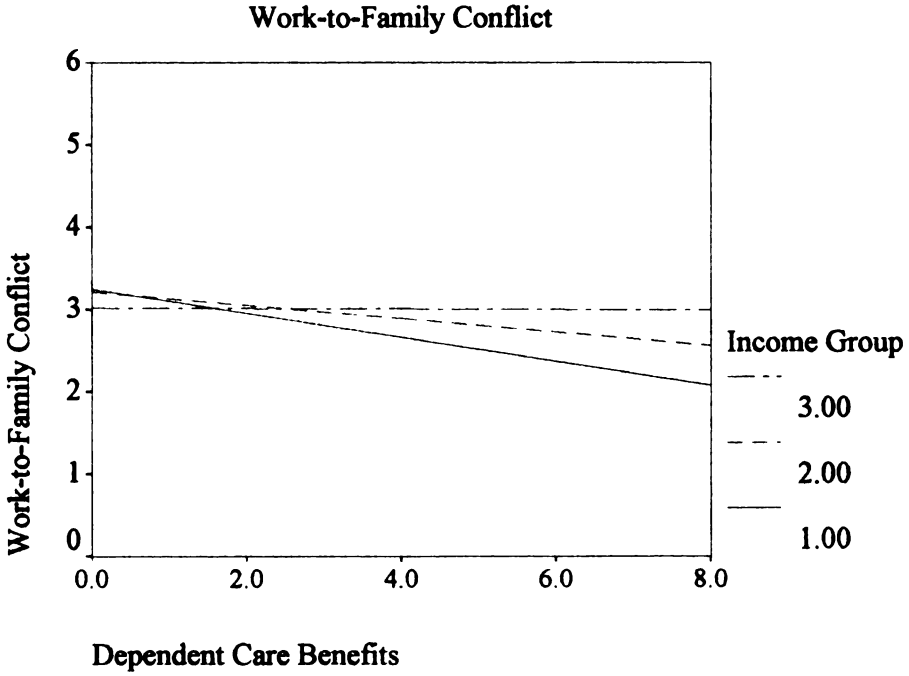


Figure 5: Interaction of Income and Total Environment

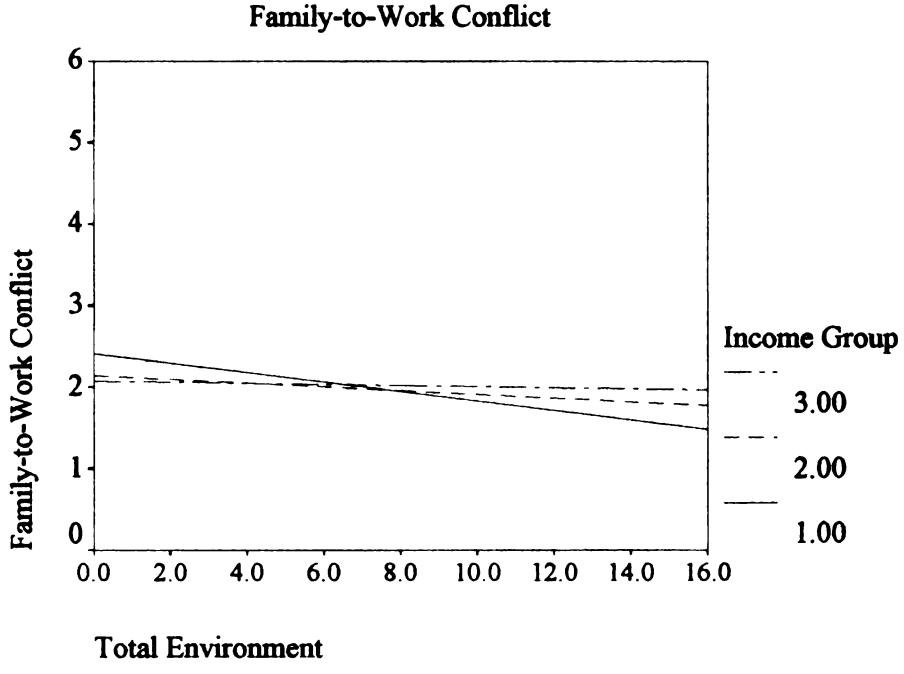


Figure 6: Interaction of Income and Supervisor Support

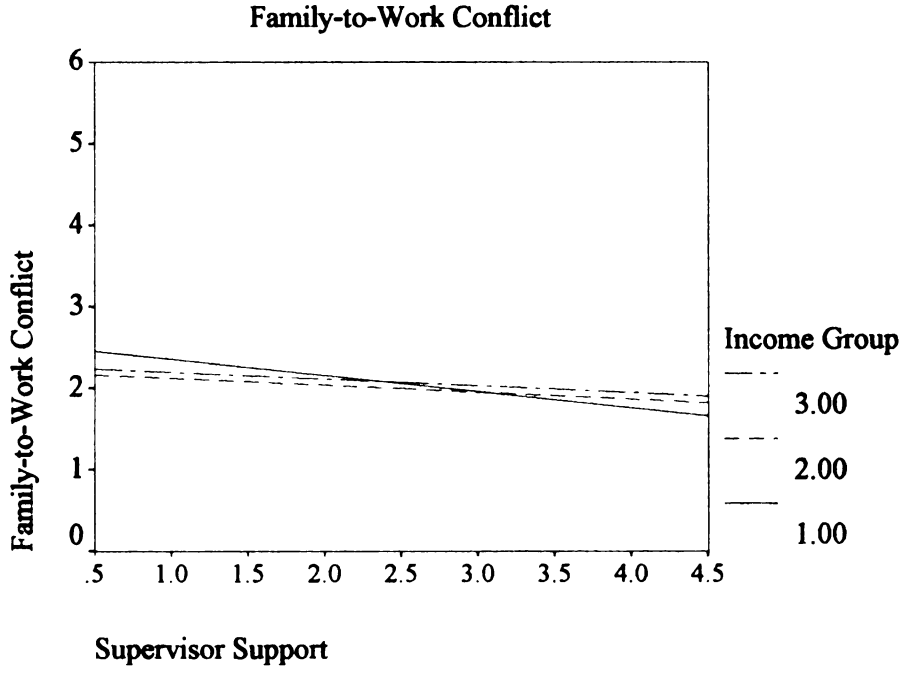
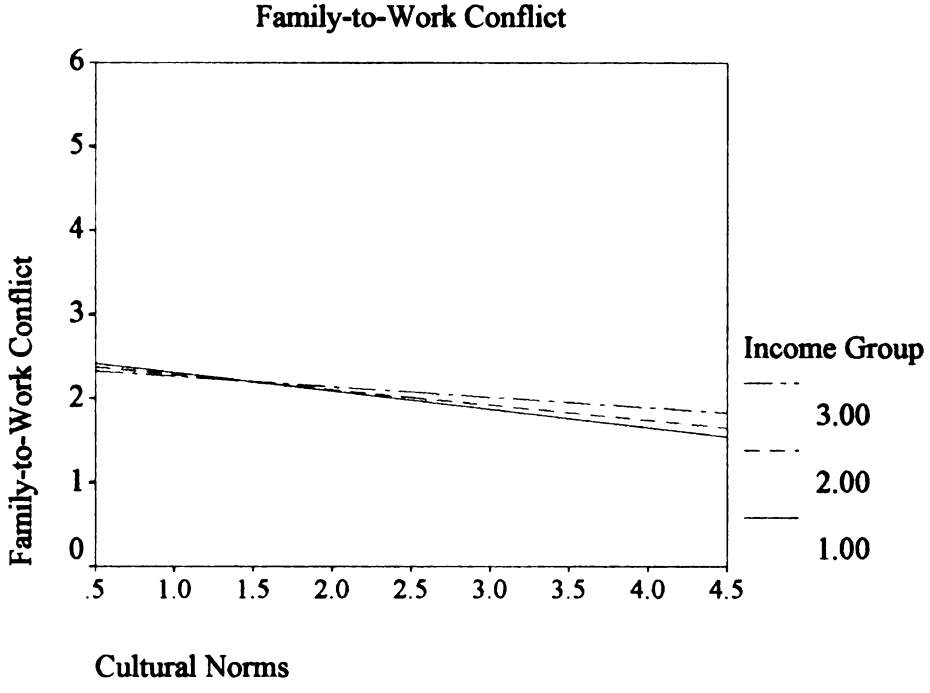


Figure 7: Interaction of Income and Cultural Norms



APPENDIX C: BACKGROUND ON THE NATIONAL STUDY OF THE CHANGING WORKFORCE

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Beginning in 1969, the Department of Labor funded three national surveys of the United States workforce as part of the Quality of Employment Survey (QES). The last survey in this series, which was conducted in 1977, marked the first time that research on a large, representative sample of U.S. workers collected information about not only the work lives of employees, but their personal lives as well. Following the halting of the QES program in 1977 there were no large-scale, nationally representative surveys of workers on life on and off the job for 15 years, although numerous small studies were conducted by researchers interested these areas.

In 1990, the Families and Work Institute obtained private support for the National Study of the Changing Workforce (NSCW) as an ongoing research program. The institute's program is more explicit and comprehensive than the QES in addressing issues related to both work and personal life. It also reflects a strong business perspective, in addition to the broader social and economic perspectives that shaped the QES. Financial support for the core NSCW research program comes from private-sector sources. The 1997 survey was cosponsored by KPMG Peat Marwick LLP (lead sponsor); Allstate Insurance Company; The Boeing Company; Ceridian; Citibank; The Commonwealth Fund; Fannie Mae; The GE Fund; IBM Corporation; Johnson & Johnson; Merck & Co., Inc.; Mobil Corporation; NCR Corporation; Salt River Project; and Xerox. The 1992 survey was co-sponsored by Salt River Project (lead sponsor); Allstate Insurance Company; American Express Company; AT&T; Commonwealth Fund; DuPont Company; General Mills Foundation; IBM Corporation; Johnson & Johnson; Levi

Strauss & Co.; Merck & Co., Inc; Mobil Corporation; Motorola, Inc.; The Rockefeller Foundation; and Xerox.

The NSCW surveys representative samples of currently employed U.S. workers every five years, with findings on important and timely issues released during the intervening years through institute reports, publication in academic journals, books, media coverage, and presentations to audiences of private- and public-sector decision-makers. The first NSCW survey was conducted in 1992; the second, in 1997, and the third in 2002. Sample sizes are large enough to support analyses of many subgroups of interest: 1997 NSCW total sample = 3,552 (2,877 wage and salaried workers); 1992 NSCW total sample = 3,718 (2,958 wage and salaried workers). The 1977 QES total sample was 1,515 (1,298 wage and salaried workers).

As was the case with the QES, the NSCWF studies provide information on a wide range of topics, allowing researchers to study many different relationships in the areas of work, family, and community, with sample sizes larger and participants more diverse than many researchers who rely on their resources can manage. The Families and Work Institute publishes a summary of the results of each study with simple data analyses describing the main findings, and makes the data available to academic researchers. Following this discussion is a list of published studies in this area that rely on data from the 1992 and 1997 NSCWF.

As should be clear from the titles, these studies use the data to answer questions about a variety of different issues. Hundley (2001a) examined differences in job satisfaction between the self and organizationally employed. Overall, self-employed workers were more satisfied than those who worked for others, but this was largely

because they tended to have more autonomy, flexibility, job security, and opportunities to use their skills. Self-employed workers were not more satisfied than employed workers whose jobs provided them with the same advantages. Hundley (2001b) also used NSCW data to explore gender differences in self employment, finding that men were more likely to choose to work for themselves because they could earn more money, while women were often seeking greater flexibility and more time with their families. Moen and Yu (1992) examined a subsample of the 1992 NSCW composed of those in dual-career families to try to uncover what made them feel most successful at home, at work, and in balancing the two. Life stage had important effects; older workers were more likely to feel successful.

Two studies share this dissertation's interest in ways that employers can help workers cope with demands in two domains. Galinsky, Bond, and Friedman (1996) examined data from the 1992 survey, finding that parents overall experienced more stress and overall conflict between work and family, and also reported having more difficulty coping than nonparents. Galinsky *et al.* included a wide range of variables in a subsequent regression analysis that sought to examine what might influence these outcomes among parents only, finding that, while informal support appeared to help, access to formal benefits of all kinds did not. Roehling *et al.* (2001) focused on how employee loyalty is affected by life stage and work/life benefits using the 1992 NSCW. Employees at all stages of life were more loyal when they had greater flexibility, and dependent care assistance was associated with greater loyalty among mothers of school-age children.

Like these studies, this dissertation reflects an interest in the intersection of work and family life. Building on the work of these researchers and others, it uses previous findings and the conservation of resources model to identify some of the resources and demands at work and at home most likely to affect work-to-family conflict, family-to-work conflict, and emotional exhaustion. Focusing approaches organizations can use to create a more family-supportive environment, it finds that such support is associated with less work-to-family conflict and, extending previous findings, less family-to-work conflict and burnout. It takes a different approach than the Roehling *et al.* (2001) and Galinsky *et al.* (1996) studies by examining the how the effects of a supportive environment and other factors may differ by income group, and is the first study to examine whether conflict between work and family mediates the effects of a supportive work environment on a work outcome. By asking new questions of the data collected for the NSCWF, it joins previous NSCW studies in adding to our understanding of the relationship between work and home.

Previously Published Studies Using NSCWF Data

Galinsky, E., Bond, J. and Friedman, D.E. (1996). The role of employers in addressing the needs of employed parents. *Journal of Social Issues*, 52, 3, 111-136. (1992 NSCWF)

Hundley, G. (2001a) Why and when are the self-employed more satisfied with their work? *Industrial Relations*, 40 (2), 293-316. (1997 NSCWF)

Hundley, G. (2001b). Domestic division of labor and self/organizationally employed differences in job attitudes and earnings. *Journal of Family and Economic Issues*, 22 (2), 121-139. (1997 NSCWF)

Moen, P., and Yu, Y. (1999). Having it all: Overall work/life success in two earner families. In T. Parcel (ed) *Research in the Sociology of Work: Vol. 7.* Greenwich, CT: JAI Press. (1992 NSCWF)

Roehling, P.V., Roehling, M.V., and Moen, P. (2001). The relationship between work-life policies and practices and employee loyalty: a life course perspective. *Journal of Family and Economic Issues*, 22 (2), 141-170. (1992 NSCWF)

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