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**EXAMINING THE DAILY INTERWEAVE OF FATHERS'
WORK AND HOME EXPERIENCES**

by

Daniel A. McDonald

A Dissertation Submitted to the Faculty of the
Department of Family Studies and Human Development

In Partial Fulfillment of the Requirements
For the Degree of

Doctor of Philosophy

In the Graduate College

The University of Arizona

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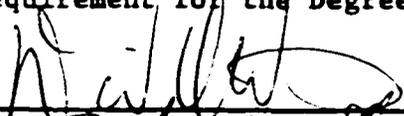
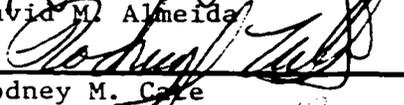
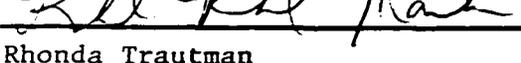
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and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy

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DEDICATION

This dissertation is dedicated to Therese, Erin, and Emily McDonald, who provide me with the daily lessons that help me learn how to be a better father.

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ABSTRACT

The basic premise of the present research is that fathering may be best understood as a process through which men demonstrate care and support for their children on a day-to-day basis over time. Work and family roles for fathers are no longer viewed as occupying separate spheres, but rather these roles are seen as integrating in a complex weave. Work may enhance the family role for men by allowing them to fulfill their obligations and provide for their families. Work may also interfere with fathering to the extent that work stressors disrupt fathering activities. One way to examine the work-family interweave is to study the day-to-day connections of fathers' work and family experiences. The present study explores a transformation process, whereby daily work experiences, such as work cutbacks, are differentially predictive of fathering experiences at home. Using a daily experiences paradigm, this study combines both stable and dynamic characteristics of fathers' work and home settings to study how work and family are interwoven.

Data for these analyses are from the National Study of Daily Experiences: one of the studies that is part of the National Survey of Midlife in the United States (MIDUS). The sample consisted of 1031 randomly selected respondents and 452 twin respondents from the MIDUS study who completed a short telephone interview on each of 8 consecutive evenings. The present analyses used a subsample of the MIDUS sample consisting of 290 fathers who had children age 20 or younger living in the household.

Findings from the within-father HLM analyses provide some evidence supporting the transformation of fathers' work and home experiences. On days fathers experienced a

cutback at work, they were two to two-and-a-half times more likely to be involved in a child-related stressor or provide emotional support (respectively) to their children than on days they do not have a cutback at work. Also, the findings indicate that work environments appear to make a difference in men's parenting experiences. Workplace characteristics such as control over the work situation, supportive work environments, and job discretion, moderate the relationship between work experiences and fathering behaviors.

CHAPTER I

INTRODUCTION

Fathering may be best understood as a process through which men demonstrate care and support for their children on a day-to-day basis over time. This contention represents a shift from viewing fathers as breadwinners and disciplinarians (Bernard, 1981; Furstenberg, 1988) to recognizing fathers as active and nurturing participants in routines and activities that constitute daily family life (Bronstein, 1988; Lamb, 1987). While there appears to be evidence suggesting the centrality of the work role/provider role to men's identity (Levenson, 1978; Thompson & Walker, 1989), other researchers contend that men's role in the family is psychologically more significant to men than their work role (Pleck, 1985). An emerging perspective no longer views work and family roles as occupying separate spheres, but rather these roles are seen as integrating in a complex weave (Almeida & McDonald, 1998; Bronfenbrenner & Crouter, 1982; Lopata & Pleck, 1983; Moen, 1982; Pitrkowski, 1979). Barnett (1998) suggests that perhaps there is a synergy between fathers' work and family roles. Work may enhance the family role for men by allowing them to fulfill their obligations and provide for their families (Weiss, 1985). Work may also interfere with fathering to the extent that work stressors disrupt fathering activities. One way to examine the work-family interweave is to study the day-to-day connections of fathers' work and family experiences. The present study explores how daily work experiences are differentially predictive of fathering experiences at home.

The Ecological Perspective, Emotional Transmission, and Experience Transformation

Bronfenbrenner's ecological perspective provides a lens through which the complex weave of work and family can be examined (Bronfenbrenner, 1979).

Bronfenbrenner describes a contextual model that considers the settings within which individuals function. The interrelations occurring as a result of participating in multiple settings, such as the workplace and home setting, is labeled the mesosystem.

Bronfenbrenner hypothesizes that the compatibility of settings, the transition between settings, and the existence of supportive links between settings influence the growth of the developing person. The difficulty with utilizing the theoretical formulations provided by the ecological perspective, and in particular those related to the mesosystem, is translating these propositions into something measurable. Emotional transmission has been a useful paradigm for examining these work-family linkages (Larson & Almeida, 1999).

Emotional transmission has been defined as "occurring when events or emotions in one family member's immediate daily experience show a consistent predictive relationship to subsequent emotions or behaviors in another family member" (Larson & Almeida, 1999, p. 2). The process of emotional transmission has been extended to examine the conveyance of events and experiences from one setting to another such as work to home (Almeida, Wethington, & Chandler, 1999; Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1989). The term "transmission" implies a certain correspondence in the types of experiences that spill over from one setting to another. For instance, tense interactions with co-workers may carry over to tense interactions with children (Bolger, et al., 1989). Yet, many work experiences do not correspond directly to

home experiences but undergo a “transformation” of sorts as they are conveyed. Such transformation is evident in Repetti’s (1989) study of air traffic controllers that showed how varying types of job stressors differentially affect the father-child relationship. For example, fathers’ work overload resulted in behavioral and emotional withdrawal from children upon arriving home whereas interpersonal conflicts with coworkers was related to harsher tones with the children at home.

The present study highlights such transformation processes by exploring how daily work experiences, such as work cutbacks for example, transforms fathers’ behavior in the home. Larson and Pleck (1997) have demonstrated that male emotions, particularly in a male culture, are centered on outcomes, competition, and situations. When men are unable to accomplish their instrumental goals, they frequently experience feelings of disappointment and anger. Men’s focus on instrumental goals may be waylaid by breakdowns and mistakes causing men to be preoccupied with problem-solving work issues after arriving home. Fathers who are highly involved in their work may be less sensitive to the needs of their children and may be less available emotionally (Heath, 1976). While the emotional effects of these transactions are important, the behaviors and experiences resulting from these emotions are also critical in understanding family functioning (Larson & Almeida, 1999). This study will test, among other things, whether limited productivity leads to an increase in father-child stressors and a decrease in emotional support.

Perhaps varying types of work-related experiences have differential effects on fathering behaviors. For instance, mechanical or technical breakdowns (e.g., computer

crash), mistakes made by self or co-workers, or work cutbacks and lost productivity may have differing behavioral and experiential effects on the father-child relationship such as in the provision of emotional support, amount of involvement, and child-related stressors. Work overload may result in energy depletion which might explain why men withdraw from social interaction in the household (Piotrkoski, 1979) or it may be a coping mechanism allowing the aroused individual time and space to return to a homeostatic state (Repetti, 1994). The present study uses this concept of transformation to investigate how fathers' daily work experiences either enhance or inhibit their daily provision of support and care for their children.

Moderators of Work to Family Transformation

In order to understand the daily micro-processes of fathering it is also necessary to examine the macro-contexts in which fathers live. Although previous diary research has helped to establish how the changing work environment transforms fathers' interactions with their children (Almeida & McDonald, 1998; Repetti, 1989, 1994, 1997), the next logical step is to identify factors that moderate such transformations. Some fathers are more likely to carry the effects of work home with them than are other fathers. This may be due to stable aspects of the work environment and various family factors. For example, the degree to which work overload leads to emotional withdrawal may be greater when fathers have the added stress of inflexible and routinized job characteristics. Furthermore, the transformation from work overload to social withdrawal may be less likely to occur when fathers have more childcare responsibilities because their wives work longer hours or there are more children in the household.

Stable and enduring characteristics of the work environment may play an important role in the likelihood of work-to-home transformations. To this end, the moderating effects of occupational conditions and schedules, and supportive work and home environments will be examined. An abundant amount of research documents the direct effects of such job characteristics on family life (Pleck, 1997). For instance, the quality of family life is negatively impacted by non-standard work schedules that interfere with childcare time (Staines & Pleck, 1983). In addition, the finite nature of time in a day inhibits men who work longer hours from spending more time with their children (Aldous, Mulligan, & Bjarnason, 1998). Greenhaus, Bedian, and Mossholder (1987) found that non-supportive work environments were associated with higher levels of work-family conflict. A non-supportive social climate at work may also result in more negative interactions with children (Repetti, 1994). On the other hand, fathers who reported more job satisfaction had more nurturing interactions with their children even when they were more involved in work and had less time for interactions with their children (Grossman, Pollack, & Golding, 1988). In the present study the moderating role of these work characteristics are highlighted. For instance, fathers with higher levels of job autonomy and greater ability to control their work environment may be less susceptible to the negative effects of work overload. Also, it is expected that supportive work environments will ameliorate the negative effects to the family caused by interpersonal tensions at the workplace.

Stable characteristics of the family may also moderate the work to home transformation. The number of children in the household, mothers' employment status,

and the degree of spousal support will also be examined. The number of children and the spouse's employment status are important to the extent that they create demands for fathers' participation in the home. For example, fathers were more likely to increase their level of family involvement when there were more children in the household as well as when mothers were employed, especially when mothers worked extended hours (Aldous et al., 1998; Hoffman, 1989). In dual-earner families, the number of mothers' employment hours was positively associated with the amount of time fathers spent in childcare (Almeida et al., 1993; Marsiglio, 1991; Presser, 1987). While increased time in childcare facilitates nurturing father-child interactions, it may also provide more opportunities for conflict (Almeida, Wethington, & McDonald, 2000; Galambos & Almeida, 1992). Conflict is more likely to occur when fathers have had a bad day at work. It is expected that households with more children and a spouse employed outside of the home will exacerbate the negative effects of work overload and negative interpersonal tensions at work due to the decreasing ability of fathers to withdraw from social interactions at home.

Daily Diary Approach

Much of the empirical support for the link between work and family roles has relied on cross-sectional studies (Baruch & Barnett, 1986; Crouter, Perry-Jenkins, Huston, & Crawford, 1989; Ishii-Kuntz, 1993; Marsiglio, 1993; Radin, 1982; Russell, 1983). Recent research extends this type of analysis by examining activities and experiences at work and home settings on a daily basis (Almeida & McDonald, 1998; Almeida, Wethington, & McDonald, 2000; Repetti, 1989, 1997). Whereas most other

studies have only considered between-father differences in the type of work conditions and fathers' level of involvement in their families, the present study examines how daily variation in work experiences within fathers is associated with their daily interactions with their children.

This approach to examining fathers affords the researcher several benefits that cannot be easily achieved through the use of standard designs. First, daily measurement helps resolve the retrospective recall problem by allowing fathers to report about work and family experiences much nearer to the time that they occur. Second, the daily design is especially useful for capturing information about the dynamics of work and family that appear static in traditional cross-sectional designs. By establishing within-person covariation of work experiences and family experiences over time, this intra-individual approach allows the researcher to rule out temporally stable personality and environmental variables as third variable explanations for the linkage between work and family. Third, the intensive longitudinal aspect of this design permits an examination of how work experiences are associated with changes in father-child interactions from one day to the next.

Although prior research has advanced our understanding of the interweave between fathers' work and family roles, there exist important limitations in these studies that could be addressed in the present study. First, early studies of work and family linkages examined macro characteristics, such as job satisfaction and marital satisfaction, without exploring the processes by which these relationships occurred. The present study uses diary data to examine more precisely the micro mechanisms occurring between the

work and family settings. Second, previous diary studies of work stress and family interactions typically have relied on self-administered checklists of daily stressors that only assess the occurrence of a stressor. The present study uses a semi-structured telephone interview instrument that measures quantitative (e.g., frequency) and qualitative (e.g., type, severity) aspects of daily stressors. The present study also examines job characteristics on a daily basis such as work cutbacks and mechanical or technical breakdowns as potentially important experiences that may transform daily fathering activities. Third, previous diary studies have failed to consider how stable characteristics of the family and the workplace buffer or intensify the work to home transformation. The present study corrects this problem by utilizing the data collected in the larger MacArthur survey on a wide array of family and work variables to study the moderators of work to home transformation. Fourth, previous diary studies have relied on small samples from a limited geographic area. The present study addresses this limitation by analyzing data from a larger sample of fathers (N=290) which is taken from a subsample of a nationally representative sample of U.S. adults.

Insert Figure 1 about here

The primary purpose of this study is to examine how day-to-day work conditions transform fathering experiences from the workplace to the home. Figure 1 depicts a heuristic model that guides the present study. First, I will examine the extent to which work experiences (e.g., work: hours, cutbacks, overloads, tensions, and breakdowns) transform to fathering experiences in the home setting (e.g., time engaged with children.

provision of emotional support, child-related stressors). Next, I will investigate how stable work characteristics (e.g., work schedules, job discretion, and the work environment) and family characteristics (e.g., spousal support, number of children, spouse employment status/schedule) moderate the transformation process. Using a daily experiences paradigm, and thus providing an operational technique for examining the mesosystem, this study combines stable and dynamic characteristics of fathers' work and home settings to study how work and family are interwoven to address the following research questions:

1. To what extent do daily work experiences (e.g., work overloads, interpersonal tensions, work hours, cutbacks) predict fathers' daily experiences in the home (e.g., providing emotional support, time spent engaged with children, child-related stressors)?
2. How do stable work characteristics (e.g., work schedule, work situation control, job discretion, and supportive work climate) and family factors (e.g., supportive home environment, spouse's employment status and schedule, and number of children in household) moderate the day-to-day linkages of work experiences and fathering behaviors?

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to present the theoretical formulations upon which this study is structured and to review the relevant literature regarding the linkages between work and family for fathers. First, an overview of the ecological perspective (Bronfenbrenner, 1979) is provided as the paradigm guiding the present study. Second, a brief review of role and human ecology theories is provided as each relates to the ecological perspective. Third, a daily experiences paradigm is introduced as a tool to operationalize the linkage between work and family settings. Fourth, previous empirical evidence is provided that establishes the relationships among fathers' work and home experiences, and the factors that have been shown to moderate these relationships. Finally, the hypotheses that guide this study are delineated.

Bronfenbrenner's Ecological Perspective

The ecological perspective provides a lens through which we can examine internal family processes to ascertain the extent to which they are influenced by environments outside of the family (Bronfenbrenner, 1979). A basic premise of the ecological theory posits that humans are not simply passive recipients of environmental conditions, but rather, individuals are active participants interacting with their environment and possessing some control over their environment. Even as an active agent, conditions are also imposed upon individuals by the physical environment and the social setting within which the individual exists. Such a premise is consistent with Lewin (1935), who posits that behavior is a function of the interaction between the person and

his environment, and as such, the environment may be an impetus for stress in an individual's life (Bubolz & Sontag, 1993).

Ecological systems

To help understand how the environment influences the behavior of the individual, Bronfenbrenner provides a contextual model which places the individual at the center of the system (Bronfenbrenner, 1979). This model is represented by four concentric circles centered around the individual. The micro-system is most proximal to the individual and involves the interrelationship of the person with others such as family members and coworkers. The meso-system represents the interaction of micro-system settings such as between home and work. The exo-system pertains to settings outside of the individual's direct experience such as a child's school setting or a spouse's work setting. Finally, influences of the larger society, including cultural norms and societal expectations, are included in the macro-system (Bronfenbrenner, 1979).

Bronfenbrenner (1986) contends that environments external to the family system such as the workplace, the community, and the social network of family members, have an impact on an individual's behavior. The present study examines the process of fathering, the provision of care to his child on a day-to-day basis, by looking within the meso-system, that is the linkage between micro-systems. The quality of the linkage between two specific micro-systems pertinent to fathering, work and family, can be viewed as a "goodness of fit" between the individual and the environment (Grzywacz & Marks, 2000). According to Bronfenbrenner (1979), the compatibility of these settings.

transitioning between these settings, and the existence or non-existence of supportive links between settings, influence the actions undertaken by the individual.

Separate or Combined Spheres?

In order to justify looking at the linkage between work and family microsystems it seems appropriate to offer further theoretical evidence of their relationship. However, there is an ongoing debate in the area of work and family research as to whether the realms of work life and home life occupy separate or melded spheres, particularly for working parents. Parsons' (Parsons & Bales, 1954) structural functional theory delineated distinct roles for men and women in society. This deterministic division of labor resulted in research that compartmentalized the roles of men as the financial provider in the work place, and women as the provider of nurture in the home (Grzywacz & Marks, 2000). Early studies examining the linkages between work and family tended to look for deleterious effects on families due to mothers' entering the labor force, or due to fathers' unemployment and involuntary occupation of the role of homemaker while the wife supported the family (Marshall, Chadwick, & Marshall, 1991). More recent theorists (Blackenhorn, 1995; Popenoe, 1996), have postulated that the difficulties befalling the American family can be traced to the dissolution of the structure of families and the loss of clearly defined, traditional family functions for husbands and wives, and mothers and fathers to meet societal needs. By examining work life and home life as separate entities, researchers were interested in how the two conflicted. For instance, the scarcity hypothesis (Goode, 1960) postulated that individuals possess a finite amount of energy and that multiple roles deplete the body of this resource.

More than twenty years ago Kantor (1977) claimed that work and family were no longer viewed as separate worlds, but rather, are now considered “reciprocally interrelated” (Crouter, 1994, p. 11). Yet, as recently as 1998, Barnett was still trying to convince researchers of this complex interweave. Barnett presents evidence from her own research, and that of others, showing that the combination of work and family roles enabled men and women “to use all their talents” (Barnett, 1998, p. 132). While combining work and family roles produces a greater amount of strain, the benefits far outweigh the costs (Barnett & Marshall, 1993). Weiss (1985) suggests that there is a synergy of roles such that the work role and family role each enhances the other. Work enables men to fulfill their roles as providers and having a family to provide for gives men purpose and meaning (Barnett, 1993). Therefore, it may be that, for men at least, the demands of work and family do not so much conflict as complement each other. Barnett (1998) concludes, from the evidence of spillover and contagion effects of work-to-home and home-to-work, that people do not experience work and home life as though they were separate spheres. Rather, people fulfill multiple roles that may have separate or overlapping characteristics, yet do not function as separate selves.

Human Ecology

Human ecology theory extends Bronfenbrenner’s theoretical formulations specifically to the family system and maintains as a basic premise that families provide economic, psychological, and nurturing functions for family members as a goal of the family system. The means to achieving these goals requires the use of resources available in the environment. The environment may inhibit or enhance the availability of resources.

which in turn may affect human behavior (Bubolz & Sontag, 1993). For instance, considering time as a resource for families, it is appropriate to investigate how time is allocated by families to meet their goals. Time, as one example of a resource for families, has been studied in a number of ways: how time is used by families (Robinson & Godbey, 1997), how social time influences family patterns of behavior (Crouter, Hawkins, & Hosteller, 1992; Crouter & McHale, 1993), how the work place regulates time through work schedules (Staines & Pleck, 1983), and how individual preferences toward time commitments to work and non-work conflict (Greenhaus, Bedeian, & Mossholder, 1987).

Studying how fathers allocate the resource of time between work and family is a first step in understanding the “goodness of fit” between micro-systems. Of course, there are other resources that fathers bring to the family aside from time. Resources such as financial support, emotional and instrumental support, and sources of knowledge and protection for the family are also ways in which fathers contribute to the family system. Again, how these resources are divided and the demands made upon the available resources are critical aspects of the work and family linkage. One way to better understand the impact of multiple demands made upon fathers for the provision of resources, is to examine the roles that fathers enact.

Role Theory

The roles an individual occupies are part of the context within which the human drama unfolds (Bronfenbrenner, 1979). Neugarten (1996) argues that in examining our social system we are not interested so much in the individual actor as we are in the roles

they play. Social roles may be viewed as interpersonal relationships in that one's social role is usually defined by its juxtaposition to another's role. Hence, researchers study relationships such as father and child, and husband and wife, for example (Kart, 1994).

In terms of role theory in conjunction with the ecological perspective, the micro-system represents the reciprocal relationship between players. The macro-system represents the social norms and expectations inherent in the roles. The meso-system, of which we are most interested in the present study, represents the interplay of the multiple roles possessed by the individual across settings (Bronfenbrenner, 1979). Bronfenbrenner (1979) contends that the setting, in combination with the individual's disposition, influence the scripts the individual plays out. According to Secord and Backman (1964) social roles incorporate psycho-socio-cultural perspectives into one integrated concept. A core assumption of role theory is that individuals occupy positions, the characteristics of which are prescribed by the standards and norms set by society (Biddle & Thomas, 1966). The normative aspect of the roles individuals occupy enables people to anticipate the behaviors of others and to have a general sense of what is expected of them (Secord & Backman, 1964).

Applying this theory to fathers, Kohn (1963) demonstrated that parental behaviors are influenced by the norms inherent in differing occupations. The work setting establishes roles to be acted out according to organizational and societal norms. Parents act as a link between the work setting and home setting, thus conveying to and instilling in their children values inherent in the parents' occupations. For instance, Kohn describes middle-class parents as promoting self-direction and self-monitoring as an internal

motivator, and working class parents encouraging their children to follow external rules and norms. Kohn contends that these parental tendencies are not a result of the class within which the individual holds membership, but rather, are conditions of life: particularly those conditions of life created by virtue of occupational differences.

Viewing Kohn's findings from an ecological perspective, Bronfenbrenner (1979) suggests that what is important in regard to parenting behaviors is not the role status or social address held by the individual but rather the role process. Thus, how people enact the roles they inhabit, by virtue of the interaction between the person's setting and disposition, affect their activities and relationships with others.

Although it is assumed that roles are distinct and occupy separate realms, researchers find that spheres such as those of worker and family member are no longer so clearly distinguishable (Kantor, 1977). For instance, Lamb (1987) suggests that the financial support that fathers provide may be viewed by the father as an important contribution to the development of his child. Weiss (1985) also found this synergy in the manner in which men perceive their work role as complementing their family role. However, just as there is a "goodness of fit" between ecological settings, there is also a "goodness of fit" between the roles people occupy (Barnett, 1987). To better understand the process of fathering we must examine the combination of roles fathers play within ecological settings. Furthermore, Barnett (1987) proposes that understanding the relationship between roles is essential to understanding how roles affect an individual's well-being. For instance, a father's well-being may be diminished through conflicting or incongruent demands being made upon him as both parent and worker (Pearlin, 1983).

The condition of fathers' well-being, their psychological and emotional states, has repercussions for the work and family linkage. One way researchers have looked at this issue is through emotional transmission using a daily experience paradigm.

Daily Experience Paradigm

Emotional Transmission

Larson and Almeida (1999) have defined emotional transmission as "occurring when events or emotions in one family member's immediate daily experience show a consistent predictive relationship to subsequent emotions or behaviors in another family member" (p. 6). Furthermore, Bronfenbrenner (1991) suggests that "one of the principal sources of stress and disarray in the lives of families and their children lies in job stress: the conflict between the needs of the family and the demands of the job" (pp. 5). Other researchers (Almeida et. al. 1999; Bolger et. al, 1989; Repetti, 1989) have extended the process of emotional transmission to include the conveyance of events and experiences from one setting to another. When multiple demands are made on fathers, resources of time, money, support, and so forth, may be severely taxed thus causing strain on fathers. Strain generated by multiple and often conflicting demands may carry over between ecological settings. Barnett and Brennan (1995) found that job demands was one of the most significant predictors of employees' psychological distress. Furthermore, it has become well established that emotionally charged events occurring outside the family setting, such as in the workplace, affect family members and relationships through the "spillover" of tension (Almeida, Wethington, & Chandler, 1999; Brown & Harris, 1978;

Margolin, Christensen, & John, 1996) or “crossover” of stress from one family member to another (Barnett & Baruch, 1987).

Compartmentalization vs. Spillover

While considering the concept of emotional transmission, depicted in some research as “spilling over” from person to person or setting to setting, it is important to recognize contrary points of view concerning the process. For instance, Weiss (1990) has found evidence supporting the concept of compartmentalization. He suggests that the purpose of compartmentalizing worries at work is a coping mechanism employed by the men in his study to prevent memories of bad experiences of work that day from entering their consciousness. In his qualitative study (Weiss, 1990), husbands would purposefully avoid meaningful discussions of events at work, preferring instead to mention only the mundane. These husbands evaded discussion of problems at work, but were eager to discuss successes at work. Weiss concludes that men are trying to maintain their self-respect which might diminish in the eyes of their wives and themselves if they were to constantly seek advice or support from their wives concerning work issues. Larson and Pleck (1997) concur that there may be a protective mechanism on the part of men to keep negative emotions out of their consciousness, but it has an effect on the family just the same.

Weiss’ description of compartmentalizing ignores the possibility of transmitting emotions even when the communication of the negative events at work are kept in check. Other researchers have found, contrary to popular belief, that women compartmentalize more efficiently than do men (Bolger et al 1989). So. While fathers make concerted

efforts to compartmentalize their negative work experiences from their home life, their efforts appear to be futile as their negative emotions are nonetheless transmitted from them to other family members (Larson & Almeida, 1999). Men may be less adept than women at managing their emotions and thus penetrate boundaries perhaps through their behavior or other non-verbal communication (Almeida, Wethington, & Chandler, 1999).

The term “spillover” is used to describe the contagion effect of transferring behavior, mood, or affect, between settings, usually physical settings such as the workplace to home (Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1987), but it also has been used to describe the interplay between family subsystems such as between the marital dyad and the parent/child dyad (Almeida, Wethington, & Chandler, 1999). According to Larson and Almeida (1999), there appears to be a pathway of emotional transmission with fathers acting most often as senders of emotions and other family members acting as receivers of fathers’ emotions, primarily negative emotions.

Transmission vs. Transformation

The implication of transmitting something, such as emotions, is that what is received in the transmission will, for the most part, correspond with what was sent. For example, sound transmitted from a radio station will be received by a transistor radio in essentially the same form. The same cannot be said for the conveyance of events or experiences in one setting to events or experiences in another. We wouldn’t expect a mechanical failure at work to directly correspond with a mechanical failure at home. Perhaps experiences in one setting undergo a type of transformation as they emerge in another setting. To illustrate this point consider an electrical current generated at a hydro-

electric power plant, conveyed through wire, then transformed into a glowing light bulb or a cool breeze from an air conditioner in someone's home. Events and experiences in the work setting may undergo a similar transformation as they manifest themselves in predictable ways in the home setting.

Perhaps emotions are the conduit connecting the experiences and events in the work setting, a place where emotions are likely to be generated, to behaviors and experiences in the home setting, where emotions emerge in a new form. Evidence for such transformation processes have been revealed by Repetti (1993), who studied air traffic controllers and found behavioral and emotional withdrawal when men arrived home after experiencing an overload at work. Further evidence was uncovered by Almeida and McDonald (1998), who examined the poly-synchrony of work-family patterns, the co-occurrence of two phenomenon such as work-stress and home-stress predicting a third outcome such as parent-adolescent tension. Understanding the effects of emotional transmission is certainly important, but as Larson and Almeida (1999) point out, it is the manifestation of those emotions in the form of parenting behaviors that is critical in understanding the process of fathering.

Fathers in Context

Examining roles through the use of emotional transmission allows the researcher to place fathers in the context of their everyday lives and to incorporate aspects of the settings they inhabit that may moderate the work and family linkages. It is no longer

sufficient to view fathers as embedded in isolated environments. The new view holds that fathers are part of a complex interweave of intricately connected environments and roles.

As such, stable characteristics of the work or home environment may play a role in the work-to-home transformation. For instance, occupational conditions, specifically the flexibility of work schedules, was determined to have a moderating effect on the amount of time fathers spent with their families (Crouter & McHale, 1993). Similarly, wives' work schedules were also found to moderate the amount of time fathers spent with their children (Almeida, Maggs, & Galambos, 1993; Barnett & Baruch, 1987). The present study examines dynamic day-to-day variation of fathers' experiences in conjunction with more stable work and home characteristics.

The framework for the present investigation follows a logical progression of theoretical formulations. The foundation for this investigation is provided through Bronfenbrenner's ecological perspective, which suggests that the environment fathers inhabit influences the script fathers play out. Lending support to this structure are elements of role theory, which inform this study of fathers in regard to relationships between roles and how roles impact fathers' well-being. Furthermore, the present study is buttressed by new theories explaining the transmission of emotions and behaviors, which provide the link between settings fathers occupy as well as the roles fathers enact. This theoretical structure thus provides the footing from which to explore the possibility that events and experiences undergo a predictable pattern of transformation from the work setting to the home setting for fathers on a daily basis. Moreover, this transformation process may depend on stable characteristics of the work and home environments.

Through this ecological investigation using a daily experiences paradigm and more enduring stable moderators, we should have a better understanding of the process of fathering.

Previous Research

The Importance of Fathering

Historical perspective.

The role of fathers remains embedded in the historic and social context of the era. For instance, in the last half of the Twentieth Century massive socio-economic changes caused great shifts in the labor force for both men and women, and shaped the nature of fatherhood today. However, prior to the industrial revolution, American society was primarily agrarian and consisted of the family household as the center of economic enterprises including farmers, craftsmen, shopkeepers, and professionals alike (Griswold, 1993). Although the “Ozzie and Harriet” one-earner family is often pointed to as the traditional family structure, the two-parent farm was far more pervasive throughout the United States until the Twentieth Century (Cherlin, 1998). Before the Nineteenth Century, most fathers did not venture far from home and influenced the development of their children by overseeing the productivity of the family business and preparing their sons for careers (Mintz, 1998). Fathers at that time were often the moral compass and primary educator for their children by teaching them to read the bible and other religious texts (Lamb, 1986).

With the advent of the industrial age the workplace moved further from the home and so too did fathers. Responsibilities of fathers shifted from supervisor and teacher to

provider and advisor. The ability to maintain a stable income and thus provide for his family was a measure of a man's authority in the family. Due to an unstable and ever shifting economy, for many working class fathers their status in the family was tenuous at best (Griswold, 1993). After World War II the labor force changed dramatically as more and more mothers entered the work force and two-earner families gradually became the norm.

The role of fathers continues to evolve today such that, as we enter the Twenty-first Century, fathers are seen as active and nurturing participants in all aspects of child rearing (Almeida, Wethington, & McDonald, 2000; Bronstein, 1988; Lamb, 1987). Recently, a "new fatherhood" has emerged in which many fathers are highly committed and involved in the day-to-day care of their children. What fathers do and how they do it, or more precisely, the frequency and form of father-child interactions, is important in understanding the social, emotional, and cognitive development of children (Aldous, Mulligan, & Bjarnason, 1998; Parke, 1996).

Father involvement.

The amount of time fathers spend directly engaged with their children and the types of activities in which they are engaged, are each vital components to understanding father-child relations (Almeida & Galambos, 1991; Almeida et al., 2000; Coltrane, 1996; Field, 1978). Lamb contends that in order for fathers and children to develop close relationships, there must be ample interactions. Moreover, Almeida et al. (2000) argue that quantity of involvement is a precursor to the quality of the interactions.

The present study examines how daily variation in fathers' work and home experiences are related to the quantity and quality of fathers' child care activities. The quantity of father-child engagement refers to the amount of time, or duration, of direct interaction between fathers and their children as well as the frequency of those interactions. Quantity of time has been measured in both absolute terms (raw hours) and relative terms (as a proportion of mother's time) (Pleck, 1997). Previous researchers have established that the duration and frequency of interactions are important to father-child relations (Almeida et al., 2000). For example, when fathers spend more time with their children they are more likely to engage in emotionally supportive as well as conflictual interactions as a result of increased exposure and opportunity (Almeida et al., 2000). The quality of father-child interactions refers to the type and form of activities in which fathers and their children are engaged. Parke (1996) contends that what fathers do and how they do it, that is the quality of fathers' interactions with their children, is a vital component of paternal involvement that promotes children's healthy development.

Father involvement is a general term encompassing three components, as defined by Lamb (1986): interaction, accessibility, and responsibility. The present study focuses on father-child interaction, also referred to as paternal engagement (Pleck & Stueve, 1997). Paternal engagement pertains to the time a father is directly engaged in some activity with his child. This is the most quantifiable aspect of involvement and is therefore frequently used in empirical studies of parenting. However, as Lamb (1986) points out, there are inconsistencies in how the construct is defined. For instance, a passive activity such as watching television together with a child has been included

within the category of interactions in some studies but not in others. Other difficulties in this construct exist as well. Time use studies such as Larson and Richards's (1994) have found it difficult to establish concurrence between the reports of fathers and adolescents as to when they were actually together: concurrence occurred on only 50% of the reports.

Leisure and recreational activities are the most prominent type of father/child engagement (Lamb, 1986; Larson & Richards, 1994; Parke, 1996). It has been found that even when fathers are interacting with their infants they engage in more playful activities proportionately, than do mothers (Parke, 1996). Kotelchuk (1976) in an early study of father-infant childcare practices found that fathers spent nearly 40% of their time with their infant involved in play activities whereas mothers spent just 26% of their time engaged in play activities. For fathers, the role of "playmate" to his children remains throughout childhood and into adolescence (Larson, 1993). However, quantity of paternal engagement is negatively related to the child's age (Aldous, Mulligan, & Bjarnason, 1998). Engaging in leisure and recreational activities allows fathers to display and manage their own emotions as well as react to their children's display of emotions (Parke, 1996). All of which is part of the child's development, but fathers develop as well.

As fathers spend more time with their children, fathers grow in competence and self-confidence and learn to be more sensitive to the needs of their children (Almeida et al., 2000). Furthermore, as fathers take on more primary caretaking responsibilities, the differences between caretaking styles of mothers and fathers appears to diminish, suggesting that perhaps these characteristics are less intrinsic and more experiential

(Field, 1978). In an observational study involving 36 four-month old infants and their mothers or fathers, Field found that indeed fathers did vary from mothers on some interaction behaviors. Fathers were more playful and exhibited more physical contact such as poking and holding limbs. However, primary caretaker mothers and fathers were also very similar on a number of behaviors which set them apart from secondary caretaker fathers. Some of these behaviors, such as mimicry of the infant may be due to increased familiarity of the child's desires.

The constructs of accessibility and responsibility will not be investigated in the present study. Accessibility refers to fathers "being available" for their children and responsibility involves the degree to which fathers are aware of the managerial aspects of their children's lives (Lamb, 1986; Parke, 1996). While these aspects of father involvement are important, they are beyond the scope of this particular investigation. While fathers' involvement in the lives of their children has increased substantially over the past decades (Parke, 1996), the actual amount of time that fathers are involved with their children and the extent to which they are responsible for their child's care is still rather limited relative to mothers (Aldous, Mulligan, & Bjamason, 1998).

The question remains, however, why is it important to look at the transformation of fathering experiences? What does the transformation of events occurring in the workplace tell us about fathering behaviors at home? Perhaps it is appropriate to look at the transformation process as an antecedent to fathering. Typically actions, thoughts, and events leading up to parenting practices are examined from a global perspective such as Kohn's (1963) seminal work on occupational conditions and their influence on parenting

behaviors. Extending this theoretical formulation, Bronfenbrenner (1998) argues that behavior is affected through increasingly complex reciprocal interactions between the person and his or her immediate environment which occurs on a regular basis over an extended period of time. The mechanism for these interactions are referred to as proximal processes. Bronfenbrenner (1998) contends that these processes can be identified in the day-to-day patterns of activities involving fathers and their children,

Therefore, proximal processes may be considered antecedents of fathering occurring on a daily basis. The mechanism driving these proximal processes may be explained in part by the transformation of experiences at work to fathering behaviors at home.

Intervention/organizational policy.

The “family friendly” workplace has been described as a pseudonym for “mother friendly” according to Levine (Levine & Pittinsky, 1997). While the terms are gender neutral, the popular conception is that work and family issues are solely experienced by women. One of the first family friendly policies established by companies was leave policies for employees of newborn children. Many of the leave policies were implemented with the impression that most men would not take advantage of them. In most cases this has held true. Formalized leave policies have not been enthusiastically embraced by fathers. Levine (1997) suggests that it is often the corporate or organizational culture that covertly discourages men from utilizing the leave opportunity. Evaluations of the Family and Medical Leave Act by government agencies have revealed a substantial under-utilization of the leave provision by males in terms of caring for

newborn children or sick relatives. The FMLA covers only a portion of the work-force and provides for those who do fall under its regulations, the law only requires that unpaid leave be granted by employers. The economic implications of that provision may discourage men from using the FMLA to care for their newborn child.

Pleck (1993) and Levine (1997) have asserted, however, that men are utilizing employer policies to balance their work and family lives to a greater extent than is typically reported. As an example of this, Pleck points to “informal” paternity leave. An informal leave may take the form of using paid sick and vacation time, which is granted to men of newborn children by their supervisors outside of any formal leave policy. In addition, he points out that flextime is often used by male employees, but the use is not attributed to managing family needs. Others have shown that fathers are either absent from work or late to work more frequently than non-fathers (Emlen, 1987). What these studies show is that interventions such as paternity policies have not been successful due to imposing corporate cultures that may inhibit men from using formal policies to balance their work and family lives. The present study will examine how work and home characteristics may enhance or inhibit men’s fathering experiences.

Transformation

Daily Work Experiences

One way to look at the daily transformation of fathers' experiences from work to home is to divide work experiences into three components including: structural factors (work schedules), social factors (tensions with co-workers), and individual factors (overloads and cutbacks).

Structural factors: work hours.

Ecological settings such as work and home environments are composed, in part, of structural facets (e.g., work hours) (Jackson, Zedeck, & Summers, 1985). Hours worked, part-time or full-time employment status, spouse's work hours, and shift work are examples of structural factors that have been studied under the general heading of "work schedules." Many studies considering aspects of work schedules have emphasized the theoretical formulations within stress theory known as role conflict. The findings, however, have been inconsistent (Barnett, 1998). The basic premise of role conflict is that two roles are competing or making demands upon the individual, and the resources needed to meet those demands are being stretched to their limit. Thus, if time is being committed to the role of worker, it is not available to fulfill demands made upon the role of father. This concept is referred to as the zero sum hypothesis (Barnett, 1998) meaning that time expended in one role necessarily subtracts from time in another role. Barnett contends that the argument that work and family conflict is not necessarily valid. She suggests that if time were available, the individual may not use it to fulfill family obligations, nor might an individual choose the option of more time if it meant earning

less and providing less financially to the family. Men do have more of a choice than do women in regard to meeting demands made by the family (Larson, 1993). Men can, and often do “buy out” their household responsibilities by trading off that time with the rationale that their higher earning “paid” job compensates for their absence from home (Barnett, 1998). In a study of 300 dual-earner couples employed full-time, Marshall and Barnett (1993) found that 25 percent of respondents did not find the demands of work and family preventing them from having enough time and energy to devote to their children. Moreover, when asked about the benefits and disadvantages of the dual roles of worker and parent, 75 percent of respondents indicated that the benefits of dual roles outweighed the problems associated with the demands of both roles. Barnett (1998) argues that the real culprit affecting role strain in terms of work schedules is not the number of hours, but rather the nature of the work, including control over the work hours. This issue will be discussed further in the section relating to the context of the work setting.

Contrary to Barnetts’ contentions, others have found a direct relationship between the number of hours worked and role strain (Galambos & Walters, 1992), work-family conflict (Greenhaus, Bedian, & Mossholder, 1987), dissatisfaction with time-family congruence (Jackson, Zedeck, & Summers, 1985), single versus dual earner families (Crouter, Peryy-Jenkins, Huston, and McHale, 1987; Nock & Kingston, 1988), and paternal engagement (Pleck & Stueve, 1997). As mentioned previously, time is a valuable resources for families and a barometer of the commitment a father invests in his role (Nock & Kingston, 1988). Galambos and Walters (1992) examined role strain among

96 husbands and wives, who were dual-earner couples, through reports of work hours and work schedule inflexibility. Work hours was the sum of hours worked by the respondent in a one week period. They found that husbands who worked longer hours and had less work schedule flexibility also reported greater levels of role strain.

In a similar study examining time commitment to work and work-family conflict (e.g., the impact the job has on home), Greenhaus et al. (1987) found a positive association between the amount of time committed to the job and work-family conflict. So, as the number of hours an employee spent on the job increased, so too did his or her score of the work-family conflict scale (Burke, Weir, & Duvors, 1979). An interesting finding from this study was that those who had a high commitment to work and a high job performance rating (as assessed by supervisors), also reported high levels of marital adjustment and quality of life. It may be that doing well on the job, even given the extensive time commitment, enhances the marital relationship and sense of personal wellbeing through feelings of success. Once again, the previous research is based on a cross sectional design. The analyses were set up to compare between groups such as males and females, and high versus low time commitment. This approach helps us understand how certain work ethics, like commitment to a job and good job performance, relate to home life, however, we do not know the mechanism underlying these relationships. For instance, on days employees experience high time commitment and high productivity, does that co-occurrence translate to certain types of experiences at home? The present study explores how various work experiences differentially predict parenting behaviors.

In another study, Jackson, Zedeck, and Summers (1985) found evidence to support dissatisfaction with job-family congruence (incompatible time demands interfering with family activities). However, structural interference of extensive overtime hours were not evident as negative behaviors in the home setting. In a national study of young fathers, Pleck and Stueve (1997) found that the number of hours worked each week was negatively related to the time these fathers spent in physical care, time in play, and time reading. In the Pleck and Stueve study, hours worked was a strong predictor of paternal engagement, yet the authors point out that other studies have not detected this relationship (Pleck, 1997). Crouter and her colleagues (1987) examined paternal participation in child care in 20 single-earner and 20 dual-earner couples. Most of the correlations between work hours and paternal participation showed a negative trend, but were not statistically significant for fathers in either single- or dual-earner relationships. These researchers did find that leisure activities with children were negatively related to dual-earner fathers' time with children, however the same effect was not found for single earner fathers.

The preceding finding by Crouter et al. (1987) is consistent with findings by Nock and Kingston (1988), who examined 137 dual-earner couples and 89 single-earner couples who had children under the age of 20. These researchers incorporated a diary design that consisted of two interviews on weekend days and two interviews on weekdays. Each interview was conducted three months apart. Respondents reported to an interviewer the beginning and ending time of each activity in which they were involved since midnight of the previous day. As with the Crouter study (1987), activities with

children related to fun (visiting, chatting, entertaining) and watching television were the most affected by fathers' work schedules. However, the dual-earner fathers were not significantly different from the single-earner fathers in their engagement with children regardless of the age of the child. Both the Crouter et al. study (1987) and the Nock and Kingston study (1988) looked strictly at time spent in various child related activities, however, they did not assess the "quality" of the father-child engagement. The present study assesses time with children in addition to the type and form of the interaction such as emotionally supportive or conflictual interactions.

Aside from the findings that fathers' time with children is reduced due to work hours, the Nock and Kingston study also revealed the underlying factor that work schedules have a particularly strong influence on the degree to which a father participates in activities with his children. Not surprisingly, evening shifts cut deeply into time spent with children, however working a midnight shift resulted in increased time spent with preschoolers.

Given the inconsistent findings concerning work hours, it may be that other factors are influencing the relationship between number of hours worked and experiences at home. The present study examines dynamic associations between fathers' daily work hours and father-child engagement in the context of stable work and home characteristics.

Social factors: tensions.

Experiencing an interpersonal tension with supervisors or coworkers is an example of an emotional facet of the work environment. In a study of air traffic controllers (ATC), Repetti (1994) examined the social climate at work and its effect on

parent-child interactions. This particular study involved 15 fathers who were ATCs and who had children living in the household. Subjects completed a diary questionnaire each night for three consecutive days and reported on social interactions that occurred between them and coworkers during the workday. In addition, there were objective measures of workload based on weather conditions and air traffic each day as well as a more global measurement of the team social climate which had been completed by the subjects months prior to the diary study. Parent-child interactions were measured using a target child. The measure included emotional tone and the quality of the parent-child interaction as well as reports on parenting behaviors reported by the fathers each evening. Repetti divides the examination of social environment at work into two separate components: the social environment of the individual, which includes direct inter-personal relationships; and the common social environment, which the individual shares with others in creating. The impact of individual social relationships at work are dependent on the status of the other worker (e.g., supervisor, co-worker). According to Repetti (1987), between-person studies have detected a much stronger influence of the quality of the relationship with supervisors than with co-workers.

On days that ATCs experienced negative social interactions with coworkers or supervisors, they used more negative tones with their children and more discipline. Interestingly, a negative social climate at work was significantly associated with fewer positive feelings in father-child interactions. Furthermore, an nonsupportive and conflictual social climate at work, as reported collectively by coworkers, was associated with more negative tones in father-child interactions.

While Repetti addresses the issue of confounding third variables by using a daily diary methodology, the limitations inherent in a study utilizing a small and restricted sample covering only a few days in the lives' of these respondents, raises serious questions about the generalizability of these findings. Be that as it may, Repetti's use of diary data and objective measures advances the field of research in work-family linkages. The present study uses a much larger national sample representing a host of occupations which should lend greater credence to the findings.

Tensions between parent and child have a tendency to continue throughout the day and reoccur in predictable patterns across days according to Margolin and her colleagues (1996). Margolin et al. (1996) studied distressed and nondistressed families across 14 interview days, obtaining information on events occurring throughout three periods of the day (i.e., morning, afternoon, and evening). For the most part mothers in the families were the reporters for the study, monitoring when and with whom tense or conflictual events occurred between family members each day. Unfortunately these researchers did not inquire about the type of conflict occurring. However, evidence was found for carryover of tension such that a tense interaction occurring in time 1 significantly increased the likelihood of additional tensions in subsequent time periods. The reporting methodology used in the Margolin study presents opportunities for error (one person reporting events for the entire family). In addition, other researchers have found it difficult to detect carryover of tense feelings from one day to the next (Larson & Almeida, 1999).

Grzywacz and Marks (1999) studied positive and negative spillover between work and family using a subsample of the National Survey of Midlife Development in the United States (MIDUS). One aspect of this study examined the main effects of supportive work environments on the positive and negative spillover from the workplace to the home setting. Negative and positive spillover was measured with a Likert type scale inquiring about how often behaviors at home were affected by work, such as: reducing activities with the family; or being more irritable, tired, or distracted. A supportive work environment entailed receiving help at work, the willingness of coworkers to listen to work-related problems, and getting information from supervisors and coworkers. The method employed in this study involved a one-time telephone interview followed by two self-administered questionnaires.

Findings from this national study (Grzywacz & Marks, 2000) indicate that resources in the workplace, such as a supportive work environment, provide robust correlations to both negative and positive emotional spillover from work to home. Lower levels of support from both coworkers and supervisors resulted in less positive emotional spillover. Interestingly, the effect of a low level of support and increased negative emotional spillover had a stronger association for women than for men in this study. The authors concluded that organizational policies will benefit from enhancing supportive work environments in an effort to reduce work-family conflict.

One major advantage of the MIDUS study over other work-family investigations is that it involves a large national sample and is therefore more generalizable to the overall U.S. population. The disadvantage of this particular study is that it is a between

person investigation that can only attempt to control for confounding third variables. Given the methodology, this study can only look at more global aspects of work-to-family spillover, and thus is unable to examine more specific outcomes in regard to parenting behaviors.

The present study addresses the aforementioned limitations by using a large national sample of fathers who reported on the same global measures of supportive work environments, but also reported daily experiences at work with supervisors and coworkers in addition to experiences at home with their children. This method of data collection and the within-person analyses will provide a clearer picture of the moderating effects of the ecological resources such as a supportive work environment, which may act as a buffer to the negative experiences at work.

Individual factors: overloads / cutbacks in productivity.

Overloads and work cutbacks represent experiences more closely related to individual factors and less so to organizational structure (e.g., work hours) or interpersonal factors (e.g., coworker tensions or support). A study examining work characteristics including high task demands, mood, and work-family conflict was conducted by Williams and Alliger (1994). These researchers used a within subjects design for data collection referred to as experience sampling technique (Larsen & Csikszentmihalyi, 1983), and studied employed men (n=13) and women (n=28) in upstate New York over a seven day period, eliciting responses eight times throughout the day. Participants reported work interfering with family life more often than family life interfering with work. High task demand at work and low occupational control were

positively related to distress. These findings were consistent with previous research by Karasek (1990). Spillover effects, that is feelings transported from one setting to another, were detected in regard to distress and fatigue such that negative mood states were persistent and did not yield to more positive interruptions.

An interesting and unexpected finding was that as task demands increased, fatigue decreased. The authors speculated that the individual becomes physiologically aroused to meet the challenge at hand. However, task demands reported at one time period significantly predicted a positive rating of fatigue at the next reporting period, suggesting that the body was still recovering from the demands placed upon it. The authors conclude that "these findings suggest that personal control may be an important regulation of daily mood" (p. 860).

In a study of Air Traffic Controllers described previously, Repetti (1993) found that on days that were more demanding (poor weather conditions, heavy airline traffic), fathers tended to withdraw from father-child interactions.

This within subjects assessment of spillover between work and family settings contributes to our understanding of the individual in context. Yet, it is imprudent to generalize these findings beyond the small sample size and limited geographic area used for both of these studies. Small regional samples are characteristic of the somewhat burdensome experience sampling technique used in the Williams and Alliger (1994) study. The present study uses a within person technique with a larger national sample of working fathers. This design involved one telephone interview per day, reducing the number of reporting episodes on the part of the respondent, and covered the contiguous

United States, to overcome problems of a regional bias. In addition, data were collected in waves over a 52 week period rather than for one week, thus eliminating seasonal bias that may influence the findings in the aforementioned studies.

In regard to cutbacks in work productivity, Greenhaus, Bedeian, and Mossholder (1987) conducted a study of 336 married and employed accountants (58% male). Respondents completed written surveys about their work experiences including role conflict, described as incompatible policies and guidelines; job performance which included measures of quality of work productivity and the employee's prospects of receiving a promotion (as reported by the supervisor); and, measures of the employee's quality of life, including attitude toward life, happiness, and life satisfaction.

These researchers found that when respondents in their sample reported lower levels of role conflict and higher levels of job performance (including productivity), employees had higher ratings of quality of life. However, main effects for the relationship between job performance and quality of life were stronger for women than for men in this study.

Larson and Pleck (1997) examined the generation of emotions in men and women through experience sampling methods of 55 married couples. These researchers obtained reports of respondent's feelings of cooperation and competition in the workplace. They found that men describe feeling more competitive at their jobs than do women. Competitiveness, according to the authors, may involve winning and losing, as well as leadership and challenge. They found that men who possessed high rates of

competitiveness and absorption in their work reported feelings of disappointment, frustration, and anger more often than those who did not possess such characteristics.

While these studies help to illuminate our understanding of how work experiences, such as being productive, are associated with quality of life and with generation of emotions, they are generally based on comparisons between men and women. The present study attempts to shed light on the relationship between reports of cutbacks at work and parent-child interactions at home.

Context of Transformation

Consistent with the ecological model, contextual factors from pertinent settings must be taken into account in the work-family interface (Grzyvacz & Marks, 1999). The primary purpose of this investigation is to identify a transformation process by which daily experiences in the work setting emerge as fathering behaviors in the home. Pearlin and McCall (1990) contend that “there is good evidence that job stress can negatively impact on relationships in the family domain” (p.41). Persistent occupational stressors may permeate the father-child relationship through continuous behaviors that infect the relationship. However, it is also important to recognize that experience transformations may be more or less likely to occur for fathers under certain conditions existing in the work and home environments. Eckenrode and Gore (1990) present a model depicting the stress-moderating process in which the presence of certain conditions reduce the likelihood of spillover of stress from one role to another or from one person to another. They suggest that contextual factors help explain why some fathers are prone to stressful experiences in the workplace, which negatively affect relationships at home such as

between fathers and children. The next section explores the moderating capabilities of stable work and family characteristics.

Work Environment

Two important aspects of the occupational setting are the “structural components” (e.g., work schedule) and the nature of the work performed, described as the “content component” of work (e.g., decision latitude, skills discretion) (Barnett, 1998). To understand the linkages between work and family settings, it is necessary to examine what affect the nature of the work performed has on the worker and his or her parenting behaviors. The degree of autonomy, control, self-direction, challenge, complexity, and diversity of the work performed is what Barnett refers to as “skill discretion” (Barnett, 1998, p. 127).

Schedule Flexibility.

The extent to which fathers have control over their work schedule is one factor that may impact father-child relations. For instance, as Barnett (1998) points out, it may be that the relationship between the number of hours worked and the negative effects of role strain depend on the degree of control and flexibility of scheduling work-time possessed by the worker. In an early study of the effects of work schedules and their impact on family life, Staines and Pleck (1983) investigated the moderating effect of schedule control and the relationships between independent variables (e.g., shift work, number of hours worked, and variation in schedules) and dependent variables (e.g., time in child care). The sample consisted of employed men (N=751) and women (N=339) who had children under age 18 in the household. The data were taken from the 1977 Quality

of Employment Survey. Participants completed surveys detailing their occupational working conditions as well as behaviors and attitudes associated with their employment.

Staines and Pleck (1983) found that the deleterious effects of extended work hours and nonstandard work days and shifts (e.g., inter-role strain due to meeting demands of two roles simultaneously) are mitigated by the ability to regulate the pattern of hours and days worked. In addition, Staines and Pleck (1983) detected a main effect of work hours on family life “specifically, number of hours worked each week is negatively related to time spent on household work and positively related to total work/family interference” (p. 70). These authors contended that other factors may be conditioning these relationships.

Through further investigation Staines and Pleck (1983) found a moderating effect by employee schedule control such that the relationship between the amount of time a respondent spent in child care and working an afternoon or night shift was dependent upon schedule control (“the degree to which a worker has a say as to what his or her work schedule will be” p. 74). The more control the employee had, the more time he or she was able to spend in childcare. Those with medium control were able to spend an additional 7.8 hours per week in childcare and those with high control were able to spend an additional 13 hours per week in childcare. Having a high degree of schedule control also moderated the impact of work hours on work-family conflict. In addition, working a nonstandard work-week (that is, working weekend days) resulted in schedule conflicts for respondents with low schedule control, but the opposite effect resulted for those with high schedule control.

In a study of dual-earner couples, Galambos and Walters (1992) examined role strain among 96 husbands and wives through reports of work hours and work schedule inflexibility. Work schedule inflexibility was based the Family Management Scale (Bohen, Veverof, & Lang, 1981) and measured the degree to which work schedules interfere in childcare, leisure activities, and household endeavors. Main effects were found in regard to work hours and schedule flexibility such that husbands who worked longer hours and had less work schedule flexibility also reported greater levels of role strain. Role strain also mediated the relationship between both schedule inflexibility and anxiety and work hours and anxiety. These findings enlighten our understanding of the relationship among work hours, schedules, and role strain. Yet, the Galambos and Walters study fails to account for possible confounding third variables. For instance, it may be that a dissatisfying marital relationship or a difficult financial situation within the family prompted the need for the employee to work longer hours. In addition, many studies examine work schedules and hours as a static phenomenon.

Crouter, Hawkins, and Hostetler (1992) addressed the issue of labile work schedules by examining 104 husbands in dual-earner couples and their involvement in work and family roles. Flexibility of schedules was measured in terms of seasonal variation. They found that job prestige moderated the relationship between role overload and season as well as the relationship between concern with family time and season. The authors speculated that men in high prestige jobs were able to reduce their workload during the summer months and thus had fewer concerns about the amount of time they spent with their families as opposed to those in lower prestige occupations. This short-

term longitudinal study used both baseline measures obtained through home interviews and daily measures obtained through telephone interviews. The findings demonstrate that the moderating effect of schedule flexibility is not static and that schedules may be associated with job status and the amount of schedule discretion possessed by the employee (Crouter et al., 1992). While this study sheds light on the temporal ecology of the work-family link, it does so using a restrictive regional sample of fathers. Furthermore, it does not explore paternal involvement in the lives of the fathers and children, but rather investigates the husbands' reports of household involvement (e.g., household chores). The present study addresses these issues by utilizing a national sample of fathers that combines baseline measures of job prestige and schedule flexibility with daily measures of fluctuation in work hours. The present study uses global measures of job prestige and schedule control as moderators of the transformation process, that is the dynamic relationship between daily work experiences and daily paternal behaviors.

Decision latitude/skills discretion.

Another way to look at work and family linkages and to better understand the transformation process for fathers, is to study the nature of the work performed and its impact on parenting behaviors. In his seminal work, Kohn (1963) examined the nature of work by comparing middle class with working class employees in an effort to attribute parenting practices to values incumbent in conditions of life, or more precisely, occupational differences. He found that middle class occupations tended to be more self-directed and relationship oriented. These tendencies were associated with parenting behaviors such as instilling values of self-monitoring and providing supportive

interactions. Working class occupations emphasized routinization and rule following, resulting in parenting behaviors that instilled values of conformity and obedience.

Working class fathers in the study tended to be more directive, imposing constraints on their children, resulting in relationships with their children that were less warm than that of middle class fathers (Kohn, 1963).

More recent studies confirm Kohn's findings, moving beyond social address (e.g., job or family status) to person process models (examining the individual in context) (Crouter, 1994) in regard to the examination of the nature of work (Greenberger, O'Neil, & Nagel, 1994). Adding to Kohn's work, Greenberger et. al mailed surveys to and conducted laboratory observations of married and employed fathers (N=67) and mothers (N=121), from cities located in southern California. The sample was mainly white (90%); tended to be highly educated, with nearly 50% having a bachelor's degree or higher; and moderately well-off financially with an income ranging from \$45,000 or higher for two-thirds of the sample. The method used in this study was a survey that took 1 to 2 hours to complete and a 2 hour laboratory observation which assessed parenting style.

Greenberger and her colleagues (1994) found a Parent Gender X Job Challenge interaction in regard to parenting behaviors such that fathers who performed more complex and stimulating work were warmer and more responsive to their children and parented more positively than those with occupations that were less complex and stimulating. Furthermore, fathers with more challenging jobs were also found to be less harsh with their children, in terms of disciplinary styles, than fathers whose work duties were less challenging.

A similar study by Barnett and Brennan (1995) examined 504 men and women, employed full-time, to determine which job conditions are most predictive of psychological distress. These researchers looked at seven job conditions which in past research had been associated with employees' psychological distress, including job control (discretion and autonomy), job demands, schedule control, pay adequacy, job security, and relations with supervisors. This sample was drawn from towns in eastern Massachusetts with a high proportion of employed women. Of the seven conditions only two emerged as significant predictors of psychological distress for both men and women (skill discretion and job control). Although this study did not analyze skill discretion as a moderator of the relationship between job demands and psychological distress, an argument can be made for this relationship. Previous research by Karasek (1979) has found that the most deleterious combination of work place conditions involve occupations with both high demand and low control.

While the research by both Greenberger et al. (1994) and Barnett and Brennan (1995) contributes to our understanding of the link between features of work and parenting practices as well as psychological distress, due to the between person approach, each is susceptible to confounding third variable explanations such as income, education, or attitudes towards parenting. In addition, the Greenberger et al. sample size is relatively small and non-generalizable to the general population. Fathers in the Greenberger et al. study represented just one-third of the total sample and those fathers tended to be white and middle class.

Supportive work climate.

The work-family interface has both structural (Barnett, 1998) and emotional facets (Jackson, Zedeck, & Summers, 1985), such that one role may interfere with another or be linked to another through conflicting schedules (structure) or linkages may exist through tensions in one arena carried over to the other (emotion). Levine and Pittinsky (1997), in their book addressing organizational policy as it affects working fathers, emphasize the equal importance of the quality of the work environment to the quantity of time fathers work. Thus they contend, how fathers are treated in the work place is going to have a direct impact on their parenting behaviors. This contention is consistent with the ecological theory: the context of the setting, including its socio-emotional factors, have a bearing on work-family conflict (Grzywacz & Marks, 2000). Supportive work environments have been examined in terms of physical health and psychological well-being (LaRocco, House, & French, 1980), role strain (Jones & Butler, 1980), coworker and supervisor support in relation to mental strain (Karasek, Triantis, & Chaudhry, 1982), moderating effects of supervisor support (Kirmeyer & Dougherty, 1988), social climate in the work place (Repetti, 1994), and work-to-family spillover (Grzywacz & Marks, 2000).

Many of the earlier studies of social climate at work looked at physical health, psychological well being, and job satisfaction as outcomes. Through surveys, Jones and Butler (1980) studied the work environment of 181 married and deployed sailors. Specifically, they looked at how work-related social support (e.g., group friendliness, support, and cooperation) and supervisor support (e.g., facilitating the individual's sense of self-worth and development of close relationships), predicted outcomes related to

family-work incompatibility and role strain. All the subjects were males with an average of 26.8 years and a pay-grade of E-4 (this indicates an enlisted person one step below the rank of sergeant).

Results indicated that higher supervisory support was related to reduced role conflict (e.g., job satisfaction and job involvement), and reduced family/work conflict (the degree to which the work role interferes with the family role). Work group cooperation and friendliness were associated with reduced levels of role conflict. While these researchers did not empirically test for the moderating effect of supervisor support, they contend that there is a direct and indirect influence of leader support on role strain. The authors speculate that supportive leaders have a direct influence on those they supervise through the management of job behaviors and an indirect influence by providing sailors with the ability to attend to work-family role demands. This was a between subjects study of deployed military personnel that is not generalizable to most other populations. However, the findings are consistent with later studies, such as Repetti's (1993), in regard to the influence of co-workers and supervisors in mitigating the effects of work family role-strain. One significant drawback of between subjects research is the potential for confounding unspecified third variables. For instance, it may be that socio-economic status or age are each individually, or in combination, influencing the relationships amongst the sailor, coworkers, supervisors and role strain. The use of daily diary studies attempts to address this issue by isolating the item of interest within the individual thus holding constant those confounding third variables.

Grzywacz and Marks (1999) looked at negative and positive spillover from work to home in a national sample of 1986 men and women using both telephone interviews and self administered questionnaires. These researchers found that employed men who received the lowest amount of social support in the workplace (getting assistance, information, or emotional support from supervisor or co-workers) had the strongest association with negative spillover from work to home. Lower levels of support at work were also associated with less positive spillover from work to home. Unfortunately this study did not test the moderating effects of social support on negative spillover from work to home. It does, however, contribute to our understanding of the context of the work setting and its influence on the home setting. The present study examines the same baseline measures of social support as were used in the Grzywacz and Marks study, but also tests the buffering effect a supportive work environment has on the associations between stressful experiences at work and father-child interactions.

LaRocco, House, and French (1980) tested the buffering hypothesis, that social support reduces the deleterious effects of occupational stress and job related strain. These researchers analyzed data representing 636 men from 23 occupational categories in regard to the level of social support they received from supervisors, co-workers, and family members and measures of mental health (depression and irritation), job-related role strain (e.g., work load dissatisfaction) and work load.

Empirical evidence was found to support the buffering hypothesis in terms of job stress and job strain on psychological well-being. Contrary to Jones and Butler (1980) however, there appeared stronger evidence for co-worker support than supervisor

support. They also found that the relationship between work load and psychological well-being was moderated by co-worker support. One of the major limitations of this study was that it treated job stress and work load as static variables, not recognizing the day-to-day variability that may exist along with more stable characteristics of the work environment. The present study examines the labile nature of work load and tests the buffering potential of a supportive work environment.

Another study that tested the buffering effects of social support by supervisors and co-workers on the associations between task characteristics (job demands) and mental strain (e.g., mood) was conducted by Karasek, Triantis, and Chaudhry (1982). This study involved 1016 men randomly sampled from the U.S. workforce as part of the University of Michigan Quality of Employment study for 1972. Survey respondents were employed 20 hours or more per week and ranged in age from 20 to 64 years.

Karasek and his colleagues found that the associations between task characteristics and psychological well-being were dependent upon the level of support received from supervisors or co-workers. There was no significant difference detected between co-workers and supervisors in their provision of support. In addition, there was no significant difference detected in the kind of support provided (i.e., emotional or instrumental).

Kirmeyer and Dougherty (1988) investigated the moderating effect of supervisor support on the associations between work load and psychological well-being, utilizing both subjective and objective measures of work load. These researchers studied 60 police

dispatchers (85% male) from 12 police stations in the northeastern U.S. Participants completed surveys and were observed for one eight hour shift.

Support was found for the moderating effect of supervisor support on the associations between work load (both objective and perceived) and tension-anxiety. Thus, the noxious effects of work overload such as frustration, irritation, and tension, may be ameliorated by support provided by supervisors. One of the obvious limitations of this study is the one-on-one observation of the police dispatcher. The intrusion of an observer into the workplace may inadvertently incorporate respondent reactivity to the investigation. Another limitation is the cross sectional design of the study that does not account for possible confounding third variables such as age and education of the respondent. One methodological advance provided by this study was its use of objective measures of workload. These researchers recognized that subjective reports of workload may be influenced by the respondents' psychological state (e.g., mood) at the time of the report. The present study incorporates both self-report and objective coding of stressful events at home and in the work place.

Repetti contends that the evidence in support of the buffering effect of social support at work has been either unreliable or weak. She suggests that self reports of work load may be confounded by psychological state at the time of the response. This issue may be remedied by more objective measures of the work environment. Repetti (1987; 1993) conducted several studies using objective measures of the general social environment of the workplace that was aggregated through a broad sample of employee responses. In a study of 72 bank tellers (83% female) (1987), she found a direct

relationship between supervisor support and employee depression. In a study of 15 air traffic controllers (all fathers) she found unsupportive work environments (unpleasant and conflictive) were associated with more negative father-child interactions (feelings of anger and disappointment). By using more global measures of social support in the work environment, Repetti was able to reduce individual reporting biases. The present study uses baseline measures of social support reported by the respondent.

Most of the studies examining social support at work use the respondent's physical health or psychological well-being as outcome measures. After reviewing the literature in this area of study, Taylor, Repetti, and Seeman (1997) concluded that social support in the work environment has a moderating effect on both stress and health issues generated in the workplace. In addition, Crouter posits that it is important to know about physical and psychological states because "moods generated by work demands and interpersonal dynamics at work find their way into the family system where they influence the kinds of activities and interactions that occur in the family" (p. 19).

The present study looks specifically at the associations between the types of daily activities fathers experience at work and experiences with their children at home as well as the degree to which these relationships are moderated by supportive or non-supportive work environments.

Home Environment

Spouse's employment status.

Another aspect of the structural environment of work and home is the spouse's work status and schedule. As with fathers' work hours and schedules, there appear to be

some inconsistent findings pertaining to the father's role when the spouse is employed outside of the home. Previous studies have examined this topic in terms of dissatisfaction in job-family congruence (Jackson, Zedeck, & Summers, 1985), work stress and home demands (Galambos & Walters, 1992), child-care responsibilities (Almeida, Maggs, & Galambos, 1993), dual and single earner households (Crouter, Perry-Jenkins, Huston, & McHale, 1987; Nock & Kingston, 1988), psychological outcomes (Perry-Jenkins, Payne, & Hendricks, 1999) and spouse's shift work in dual-earner couples (Staines & Pleck, 1983),.

Jackson et al. (1985) studied 95 plant workers (95% male) and their partners using self-administered questionnaires. Examining how "structural" components of work (e.g., work schedules) interfere in family life, these researchers found a main effect indicating that schedule incongruity, one partner working a schedule dissimilar to that of the other, was related to dissatisfaction in job and family congruence (e.g., being able to do things with the family). However, the dissatisfaction associated with structural interference did not emerge as negative behaviors in the home setting. On the other hand, negative behaviors toward children on the part of fathers due to wives' work schedule were evidenced in a study by Galambos and Walters (1992).

Galambos and Walters (1992) studied 96 dual earner couples longitudinally over a one year period with three waves of data collection. They found a direct effect of wives' hours of work on husbands' depression and wives' schedule inflexibility on husbands' role strain. The authors speculated that wives provided emotional support to their husbands, hence buffering the noxious effects of work stress and home demands.

However, when wives are working longer hours they are not home to fulfill this role. Thus, wives work hours may moderate the relationship between demands placed upon the husband as worker and his home responsibilities as father. According to these authors, when wives work longer hours it may place increased burden on the father to perform household responsibilities such as child-care, without his volition. Furthermore, if wives are working longer hours, buffering activities of the wife are not available for the father to allow for a transition from work to home (Galambos & Walters, 1992). Therefore, fathers are exposed to increased amounts of stress as solo caretakers with no opportunity to phase into the role after arriving home from work. Perhaps the negative effects are attributable to the involuntary nature of the role obligations of these fathers. Lamb and his colleagues found that non-volitional participation in paternal involvement produced less positive outcomes on the part of fathers' well-being (Lamb, Pleck, Charnov, & Levine, 1987).

In a study of the psychological effects on fathers in dual-earner marriages, Perry-Jenkins et al. (1999) found more positive outcomes for highly involved fathers whose spouses worked full-time during dissimilar shifts. In a study of 66 couples transitioning into parenthood, these researchers expected fathers, who had solo care of their infant child while the mother worked, to experience higher levels of psychological distress because the responsibilities of child care were not optional. The opposite effect was detected in that as the percentage of time fathers held solo responsibility for the care of their children increased, so too did their psychological wellbeing. The authors speculate

that fathers benefit from the parenting experience when they are in charge and not under the supervision of their wives.

Almeida et al. (1993) looked longitudinally at fathers' participation in childcare in a sample of 104 employed couples. Almeida and his colleagues found a Parent Gender X Time interaction revealing that fathers increased their participation in childcare both in absolute and proportional terms, across a six month period, in response to their spouses' work status, but that mothers did not. Furthermore, as mothers' work hours increased, she had a greater propensity for sharing in child care responsibilities with fathers. Having an increased role in child care in response to wives' employment status is consistent with findings by Barnett and Baruch (1987). In a cross-sectional study of 160 mothers and fathers of children in elementary school, these researchers found that the proportion of time fathers were involved in childcare activities and interactions with their children increased when their wives were employed. However, the interpretation of studies using only proportional data should be done with caution. It may be, as Pleck (1983) argues, that mothers are reducing their absolute level of childcare time in response to work hours and that fathers appear to be contributing a greater percentage of the total, albeit erroneously. Contrary to Almeida et al., Crouter and her colleagues (1987) (looking at 20 single and 20 dual earner couples) found that mothers' work hours in dual-earner households were not associated with any of their measures of father involvement.

Finally, in an early study of the work-family interface, Staines and Pleck studied mothers' shift schedules and fathers' child care time in a sample of employed men (n=751) and women (n=339) with children under age 18. The data was taken from the

1977 Quality of Employment Survey. They found that husbands in dual-earner marriages experienced increased work-family scheduling conflicts when they worked non-daytime or variable schedules and their wives worked a non-daytime or variable shifts. The authors explained that fathers in this study increased their time in child care in response to their wives' work schedule. Thus, fathers in this situation increased their family responsibilities over and above its normal state and, in doing so, were exposed to more interactions with their children leading to increased conflict. The same effect was not detected when women worked weekend schedules. The explanation for the non-effect on the weekend is that fathers typically spend more time involved with their children on the weekend as opposed to weekdays (Almeida & McDonald, 1999) and thus there is little difference in fathers' routines and responsibilities. These studies were primarily concerned with the main effects of wives' work schedules on fathers' child care participation. However, sufficient evidence exists for exploring the moderating effect of spouses' employment status on the associations between stressful work experiences and fathering behaviors.

Supportive Home Environment.

Bronfenbrenner posits that the presence of supportive links between settings can enhance the goodness of fit between the individual and the environment or the lack of those links can inhibit the goodness of fit (Bronfenbrenner, 1979). Ecological resources are the mechanisms that promote a sense of support and control, assisting the individual in his ability to adapt and thus function more effectively within multiple domains (Grzywacz & Marks, 2000).

The extent to which a supportive home environment mitigates the deleterious effects of the work environment has been studied in numerous ways over the past several decades including: provision of emotional support (Weiss, 1985), work and family conflict (Greenhaus & Beutell, 1985), negative and positive spillover (Grzywacz & Marks, 2000), mood and quality of family life (Jackson & Maslach, 1982), workload and mental health (LaRocco, House, & French, 1980), and workload and marital behaviors (Repetti, 1989).

Weiss (1985) conducted a qualitative study of employed men to ascertain the processes through which interpersonal support by spouses is sought and provided. The study involved 62 male administrators between the ages of 35 and 55. Almost all were married and had children. Many of the wives worked part-time in what Weiss describes as "traditional marriages." Interviews lasted about two hours.

For Weiss' sample of men, the overall tendency was not to discuss work-related problems with their wives. Some men took pride in leaving their "troubles at work," yet some admitted that they were not always successful in turning off the emotions generated at work. Weiss suggests that the expression of emotions either at work or home may be viewed by men as a sign of weakness or vulnerability. Men also see part of their responsibility as protecting their families from problems outside of the home (Weiss, 1990). The role expectations for men as employees and men as fathers may be incongruent in terms of emotional expression. Moreover, in order to be the recipient of social support, it is necessary for the support system to be activated. Activation of the support system relies on the supportive individual to recognize that a stressful event has

occurred or a problem exists (Pearlin & McCall, 1990). Perhaps role expectations in work and home settings in terms of emotional expression are incompatible.

Greenhaus and Beutell (1985) studied work and family conflict in regard to role behaviors expected in both work and family situations. One finding was that the stoicism reinforced in the work-world was somewhat incompatible with openness and expressiveness desired at home. These conflicting value systems may create intra-role strain if the man is unable to adapt and adjust between settings and so, parenting behaviors may be adversely affected.

In another study, Grzywacz and Marks (1999) examined family factors that contribute to negative or positive spillover from work to family. This study used data collected through a national sample of 1986 men and women who completed self-administered questionnaires and telephone interviews. These researchers found only moderate main effects for associations between negative spillover from work to family and low levels of emotional support from spouse and family members. No significant findings were evident in regard to positive spillover.

This study helps to illuminate our understanding of the contextual factors contributing to the work-family interface using a large national study. However, it does not provide information about how stable characteristics of the home environment influence daily experiences at work and parenting behaviors at home.

In a study of 142 male police officers and their wives involving after-work mood and the quality of family life, Jackson and Maslach (1982) concluded that couples who talked together as a coping style were more happily married and fathers tended to be

more involved with family and displayed fewer episodes of anger within the family setting. The authors suggest that “social support from family is an important moderator of the effects of job stress on health” and that “tensions of the job are taken home, leading to disruptions in home life” (p. 74). However, they did not directly test for moderation.

In a study examining workload and employee mental health, LaRocca, House, and French (1980) reanalyzed previous data from several studies and found support for what’s called the stress buffering hypothesis: that is, “the impact of stress is reduced...as the level of social support increases” (p. 208). In their review of the literature, these researchers found conflicting evidence in regard to the buffering hypothesis, but attribute the contradictory findings to the manner in which variables were selected in early analyses. According to the authors the buffering effects were pervasive, especially for the moderating effect of home support on workload and psychological wellbeing. A similar moderating effect was not found for home support in regard to workload, job satisfaction, or boredom at work. While these authors controlled for confounding third variables, such as age, education, and job prestige, due to the design they were unable to detect the influences of other third variables such as organizational climate, years of employment, etc. The authors point out that more research needs to be conducted to better understand the processes involved in social support, such as the sources of support differentially producing effects and under what conditions certain types of support are mobilized. The present study controls for confounding third variables by conducting within person analyses combined with between person analyses of stable home characteristics to illuminate the process of fathering.

Repetti addressed concerns of potential third variable explanations in a study of air traffic controllers and the ameliorating effect of spousal support on workload and the marital relationship (Repetti, 1989). Using a daily diary method, Repetti examined objective measures of workload (e.g., weather and air traffic) as well as marital behaviors of 33 married male ATCs and their wives over a three day period. Using regression analysis, Repetti found that indeed, spousal support (i.e., provision of emotional support, comfort, sympathy, and appreciation) moderated the association between daily workload and marital withdrawal and daily workload and marital anger. Exploring the specific factors that constitute workload (i.e., difficult conditions, busy day, low visibility, and high traffic volume) Repetti found differentiating effects of high and low spousal support. These findings are consistent with other findings that suggest a supportive home environment moderates the noxious effects of stressful experiences at work and the subsequent manifestation of those experiences in behaviors at home. This study went a step further than others by examining more closely the differential processes involved in the buffering effect provided by the spouse. As much as the Repetti study contributes to our understanding of these processes, it is necessary to expand upon her research by testing the stress buffering hypothesis on larger and more representative within subjects samples and examining the buffering effect of social support in terms of father-child interactions.

Number of children.

Barnett (1998) argues that structural variables of the social system, such as the number of children in the household, should be provided as much scientific attention as

structural variables from the work setting. She contends that contextual factors from both work and home settings must be taken into account to understand the work/family interface. Barnett and Baruch (1987), in a cross-sectional study of 160 mothers and fathers of elementary school children, found evidence of main effects indicating that the number of children in the family was a predictor of fathers' solo interaction time and proportional interaction time with their children. In larger families these researchers found that fathers were more apt to spend time in solo care than smaller families. In another study with similar findings, Pleck and Stueve (1997) looked at a national sample of young fathers (21-27 years old) (n=309). These researchers found that the number of children was associated with fathers spending more time reading to their children. These findings are contrary to what is often hypothesized in regard to fathers' participation in larger families. It is speculated that children in larger families will interact more with siblings and thus have less need for the father as "playmate" (Marsiglio, 1991; Pleck & Stueve, 1997).

Marsiglio (1991) assessed fathers' involvement in child care activities using the National Survey of families and households, collected in 1987-1988. Father-child activities in this study pertained to the frequency of father-child interactions including fathers: playing with them, reading to them, helping them with homework, having private talks with them, and participating in leisure activities with them. This study did not target a particular child in the family but rather "asked about a father's children in general" (Marsiglio, 1991, p. 977).

For families with older children in the household (5-18 years of age), Marsiglio found that the number of children was one of the strongest and most consistent predictors of father involvement with children. Paternal activities in terms of playing, talking, and overall activities with children ages 5-18 were negatively related to the number of children in the household. It may be that older children act as a surrogate parent by reading and playing with their younger siblings.

Similarly, Aldous, Mulligan, and Bjarnason (1998) studied fathers participation in child care over a five year period (n=762 couples and their children) in a national sample. The more children there were in the household the less time fathers were able to spend with the focal child.

Perhaps father involvement has a curve-linear relationship to the number of children in that fathers with only one child will have fewer overall opportunities to be involved than those with more than one child, and those with larger families (e.g., four or more children in the household), may have fewer opportunities due to siblings interacting more with each other. However, daily processes of fathering may remain the same regardless of the number of children. Almeida, Wethington, and McDonald (2000) found that while fathers with only one child in the household spent less time and had fewer overall tensions with their child due to decreased exposure, the daily pattern of father-child interactions was no different than fathers with more than one child.

Unfortunately none of these studies looked at the number of children in the household as a moderator of the work-family interface. However, an argument can be made for the need to explore the possibility that family size alters the work-family

transformation process. While some researchers have found that fathers spend more time with children as the number of children in the household increases (Almeida et al., 2000; Barnett and Baruch, 1987), others have found either no relationship or the opposite effect (Marsiglio, 1991; Pleck, 1997). The findings concerning father-child time of engagement have not been consistent according to Pleck (1997). However, the circumstances under which increased father-child engagement occurs may be more complex than just family size. Other research has shown that father-child engagement increases when mothers work extended hours or shifts contrary to the fathers' shift (Almeida et al., 1993; Barnett & Baruch, 1987; Staines & Pleck, 1983). Furthermore, with increased exposure comes increased opportunities to experience stressful events involving children (Almeida, 2000). Increased exposure due to more children and no buffering by an employed wife may increase demands made on the father and exacerbate the noxious effects of a bad day at work.

Bolger, DeLongis, Kessler, and Wethington (1990) did conduct an examination of stress and the interaction of parental status and wives' employment status. Bolger and his colleagues used a diary study of 166 married couples from the Detroit metropolitan area. Respondents completed a short survey each day for 42 consecutive days. Results indicated that the prevalence of daily stress was greater among couples with children in the household than those without. In terms of men, both home and work role overloads were significantly higher for men with children. Moreover, these researchers found stress (arguments and overload) and men's family role depends on wives' employment status.

The authors suggest that perhaps the combination of roles (e.g., worker, father, and husband of an employed wife) increases the emotional effects of family stress for men.

Hypotheses

The following section delineates the hypotheses that will guide the present study. The first set of hypotheses involve the work-to-home transformation process, followed by hypotheses concerning stable work characteristics and stable home characteristics.

Work-to-Home Transformation

H 1. Increased daily paid work hours will predict decreased likelihood of time spent with children, provision of emotional support, and experiences of child-related stressors. Crouter and her colleagues (1997) found a negative trend in the association between work hours and paternal engagement while Pleck and Stueve (1999) contend that the number of hours worked by fathers is a strong indicator of paternal engagement. Moreover, Almeida et al. (2000) have shown that the less time fathers are engaged with their children, the less likely fathers are to provide emotional support or experience child-related stressors.

H 2. On days fathers experience interpersonal tensions at work, they will be less likely to provide emotional support to their children as compared to days they do not experience interpersonal tensions at work. Negative social interactions at work have been shown to be associated with fewer positive feelings in father-child interactions (Repetti, 1994). Under such circumstances, fathers may be preoccupied with their own emotional needs and unavailable to meet the emotional needs of their children.

H 3. On days fathers experience work overloads they will be less likely to provide their children with emotional support and will be less likely to spend time with their children as compared to days they do not experience work overloads. Excessive demands at work such as too much to do in too little time, have been shown to be associated with emotional withdrawal at home (Repetti, 1989). Work overloads may result in energy depletion which might explain why men withdraw from family interactions after a particularly demanding day (Piotrkoski, 1979). In addition, the time that fathers spend engaged with their children usually involves leisure, especially recreational activities (Larson & Richards, 1994).

H 4. On days fathers report cutbacks in work productivity or mechanical/technical breakdowns, they will be less likely to spend time engaged with their children as compared to days they do not experience cutbacks in work productivity or mechanical/technical breakdowns. Larson and Pleck (1997) have shown that men's emotions are often based on outcomes, competition, and situations and that disruptions in attaining instrumental goals may arouse negative emotions such as disappointment, frustration, or anger. Furthermore, wives may act as a buffer to for their husbands when they experience a difficult day at work (Bolger, 1989).

H 5. On days fathers report either cutbacks in work productivity or mechanical/technical breakdowns, they will also be less likely to provide their children with emotional support as compared to days they do not report either cutbacks or mechanical/technical breakdowns. Decreased work productivity due to emotional or physical problems or technical or mechanical breakdowns may be associated with men's

preoccupation with problem solving after arriving home from work. When fathers are highly involved in their work, they may be less sensitive to the needs of their children and less available for them emotionally (Heath, 1976).

Stable Work Moderators

H 6. The relationship between work overloads and hours spent with children will be moderated by work situation control and work schedules, such that, fathers with lower levels of control and non-standard schedules will spend less time with their children on days they experience a work overload than fathers with higher levels of work situation control. Extant research has shown that control over the work situation is a key component to mitigating the negative effects of work schedules on work-family conflict (Pleck & Staines, 1977; Barnett, 1998).

H 7. Job discretion will moderate the relationship between work experiences (work overloads and work tensions) and home experiences (time, provision of emotional support, and experiences of child-related stressors), such that on days fathers experience some form of work-related stressor, the negative effects on father-child interactions (spending time and providing emotional support or experiencing a child-related stressor) will be lessened for those fathers who have higher levels of job discretion. The degree of job autonomy and decision latitude has been found to mitigate negative spillover from work to family (Grzywacz & Marks, 2000). Those fathers in occupations that have low levels of job discretion do not have the advantage of regulating their workload and managing their time. Work demands and work-related tensions may take a greater toll on those with low levels of power in the work environment. Furthermore, Greenhaus et al.

(1987) have found that fathers who have more challenging and complex occupations treat their children with greater warmth and parent more positively.

H 8. Supportive work environments will moderate the relationship between work setting experiences and home setting experiences, such that on days fathers experience some form of work-related stressor, the negative effects on father-child interactions (spending time, providing emotional support or experiencing a child-related stressor) will be lessened for those fathers who have higher levels of supportive work environments. Supervisors who provide employee support have been associated with providing greater flexibility when family demands interfere with work as well as reducing work-family role strain (Jones & Butler, 1980; Repetti, 1993). Coworkers who provide empathy have been associated with decreased negative spillover on the part of employees (Gryzwacz & Marks, 1999).

Stable Home Moderators

H 9. Spouses' work schedule and the number of children in the household will moderate the relationship between work setting experiences and father-child interactions, such that on days fathers experience a work-related stressor, the negative effects on father-child interactions will be exacerbated for those fathers whose spouses work non-standard hours or have more children living in the household. The number of children and the spouse's employment status and schedule are important characteristics of the home environment to the extent that these characteristics may create demands for the father's participation in the home. Aldous et al. (1998) and Hoffman (1989) have shown that fathers are more likely to increase their level of involvement when there are more

children in the household as well as when mothers are employed outside of the home and work extended hours. Increased time in childcare provides opportunities for both increased provision of emotional support as well as increased opportunities for child-related stressors.

H 10. Spousal emotional support will moderate the relationship between work setting experiences and fathering behaviors such that on days fathers experience some form of work-related stressor, the negative effects on father-child interactions will be lessened for those fathers who receive higher levels of support from their spouses. Emotional support from family members has been shown to be an important moderator of the effects of work on the quality of family life (Jackson & Maslach, 1982; Repetti, 1989). In their review of numerous studies, LaRocco, House, and French have found support for the stress buffering hypothesis. While Weiss (1985) found that men are often reluctant to seek interpersonal support from their spouses, those who do talk with their spouse about their problems are more involved in the family and display fewer episodes of anger (Jackson & Maslach, 1982).

CHAPTER III

METHOD

This chapter describes the research methods used in the present study. Included in this chapter are descriptions of (a) the participants, (b) the data collection process, (c) the daily measures, and (d) the baseline measures. Finally, a description of the statistical techniques employed to analyze the data is presented.

Participants

The MacArthur MIDUS Survey

Respondents for the present study were from the National Study of Daily Experiences (NSDE), one of the in-depth studies that are part of the National Survey of Midlife in the United States Survey (MIDUS) carried out under the auspices of the John D. and Catherine T. MacArthur Foundation Research Network on Successful Midlife (O. Gilbert Brim, Director). Respondents ranged in age from 25-74 years with an oversample of people between the ages of 40-59 years. The MIDUS survey was designed by an interdisciplinary team to study patterns and correlates of adult development in the United States with special emphasis on physical health, psychological well being, and social responsibility. The MIDUS was fielded in January 1996 and was comprised of three subsamples: (a) a representative subsample of 3032 respondents who were obtained through random digit dialing (RDD) of telephone numbers; (b) a national sample of 987 twin pairs; and (c) a subsample of 1800 siblings of the RDD respondents.

The respondents contacted through RDD were provided with a verbal explanation of the study and what would be involved in the process. Respondents were informed that

the purpose of the surveys was to study physical and psychological well-being and social responsibility of people at midlife in the United States. They were further informed that the process would involve a telephone interview and completion of two written questionnaires all of which would take approximately two-and-one-half hours to complete. After the study was explained, a list was generated of potential participants who met the age criteria (25-74) and lived in the household. One person from the list was selected at random to participate in the study. If that person did not agree to participate or complete the interview, no other person from that household was selected to participate. Once the person meeting the selection criteria was identified efforts were made to recruit that person to participate in the study. A brochure was mailed that explained the study and a follow-up phone call was made (see Appendix A for excerpt of recruitment interview and sample brochure). Further information was available as well as access to senior members of the research staff upon request of the potential participant.

Those who agreed to participate first completed a telephone interview lasting approximately 30 to 40 minutes. Subsequently, the respondents were mailed a written survey along with a gift pen and a check for \$20. Shortly after the first questionnaire was sent, a reminder postcard was also sent. Two-weeks later the second questionnaire was mailed along with a cover letter encouraging the respondent to complete the questionnaires and return them. Those who did not return the questionnaires within a two-week period received a reminder phone call.

The response rate for the telephone interview was 70% and for completion of the written questionnaires was 87%. The overall response rate therefore was 61% (.70X.87).

National Study of Daily Experiences Sample

Respondents for the NSDE sample were randomly selected from the 3032 RDD respondents who participated in the MIDUS. The NSDE attempted to recruit 1,242 respondents from the MIDUS RDD pool and was able to recruit 83% of those contacted (N=1031). The NSDE also attempted to recruit 516 respondents from the MIDUS twin pool and was able to recruit 88% (N=452). Respondents who agreed to participate in the NSDE study received a check for \$20 and a letter explaining the purpose and procedure of the study (see Appendix B for sample letter).

Insert Table 1 about here

For the present study, data from a subsample of NSDE participants were used. For the purposes of this investigation, only employed fathers with children under age 21 in the household were used. This resulted in a sample of 290 fathers. Table 1 compares characteristics of the NSDE and Father subsample with the MIDUS sample from which it was drawn. The MIDUS and NSDE samples had very similar distributions for age, marital status, and parenting status. The NSDE subsample had slightly more females, as well as better educated and fewer minority respondents than the MIDUS sample. Respondents were on average 47 years old. The average family income was between \$50,000 and \$55,000. Men were slightly older than women and had similar levels of education. The last column in Table 1 shows the breakdown of fathers for the present

study. As might be expected, this sample contains a somewhat higher proportion of young adults and a smaller proportion of older adults as compared to the MIDUS sample. In addition, 96% of fathers were married and the other four percent were cohabiting. The level of education was somewhat higher in the present sample, with two-thirds having at least one year of education beyond high school. Almost three-quarters of the subsample were part of a dual-earner couple. In the Father sample, fathers were on average 40 years old and had approximately two children with an average age of 13 years. The average family income was \$38,000 and the average level of education attained was 13 years. Approximately 2030 daily interviews were obtained from these 290 fathers. The present analyses are on the 1544 days fathers reported being engaged in paid work. The average work week was 44 hours.

Procedure

NSDE Procedure

Over the course of eight consecutive evenings, NSDE respondents completed short telephone interviews about their daily experiences. Data collection spanned an entire year (March 1996 to March 1997) and consisted of 40 separate “flights” of interviews with each flight representing the eight-day sequence of interviews from approximately 38 respondents. The initiation of interview flights was staggered across the day of the week to control for the possible confounding between day of study and day of week. The interview was conducted using a CATI program (Computer Aided Telephone Interview) which enabled interviewers to incorporate skip patterns and open-ended probe questions, which were tape recorded and subsequently transcribed. The CATI program also enabled the interviewers to keypunch data during the interview. On the final evening of interviewing, respondents also answered several questions about their previous week. Respondents completed an average of 7 of the 8 interviews resulting in a total of 10,374 daily interviews. For the present analysis, 290 fathers with children in the household under 21 years of age are used, resulting in 2030 interview days. For the purposes of the present study only days that fathers reported being engaged in paid work were used resulting in approximately 1450 study days.

Measures

NSDE Diary Measures

Data for the NSDE telephone interview were collected over the course of eight consecutive evenings. These interviews included questions about daily experiences in the past 24 hours concerning time use, productivity and cutbacks, and daily work/family stressors. The time frame for all of the measures was the previous 24 hours or since the previous telephone call.

Fathers' daily home experiences.

Fathers' home experiences were assessed via measures of child-related stressors, hours with children, and emotional support provided to children. These measures of fathering represent both quantitative and qualitative aspects of the father-child relationship (Almeida et al., 2000).

Child-Related Stressors were assessed through the semi-structured Daily Inventory of Stressful Events described above (DISE, Almeida, 1997). The inventory consists of a series of stem questions asking whether certain types of events had occurred in the past 24 hours along with a set of guidelines for probing affirmative responses (see Appendix C for details). This investigation-based approach enabled trained raters to distinguish between a stressful event such as an argument with one's child, and an affective response such as feeling angry or sad. So, for instance, if a respondent reported an argument with one of his children on day one, that would be counted as a *Child-Related Stressor*. However, if on day two he reported that during the day he was reflecting upon the argument that occurred on the prior day, and felt guilty about his behavior, for the purposes of this study that would not be considered a *Child-Related Stressor*.

Another advantage of the investigator-based approach is to guard against duplicate reports of the same event. This was done in two ways. First, questions were worded in such a way so as to prevent overlap in reporting periods (i.e., since this time / since we spoke yesterday). The second was by training raters to identify duplicate reports of events that occurred on the same day. Approximately 5% of all the narratives were coded as non-events.

The aim of the interviewing technique was to acquire a short narrative of each event that included descriptive information (e.g., tensions with children over household chores, family demands) as well as what was at stake for the respondent (see Appendix C for Stem Questions). All of the interviews were tape recorded then transcribed and coded for several characteristics. Each stressor was initially placed into one of seven broad classifications (i.e., interpersonal tensions, work/education, home, finances, health/accident, network, miscellaneous) and then further categorized into 54 specific classifications depending on the content of the stressor (e.g., interpersonal tensions involving respect, work overloads, work breakdowns, work mistakes, family demands). A pilot study of a national sample of 1006 adults was conducted prior to the classification to generate the list of specific classifications. The focus of involvement was also assessed to determine if the event involved only the respondent, only a person other than the respondent, or jointly the respondent and another person. For events involving only others or both the respondent and another person, the respondent was asked the relationship of the other person involved (e.g., spouse, coworker, child).

For *Child-Related Stressors*, only those stressful events involving the respondent and his children, jointly, were analyzed. *Child-Related Stressors* was created by dummy coding study days into two categories. For each study day respondents were given a score of “1” if they reported a stressful event involving the respondent’s children and himself on that day, and a “0” if they did not.

Daily Hours With Children, which refers to the quantity of father-child engagement, was measured by asking respondents on each interview day, how much time in hours and minutes they spent each day “taking care of or doing things with their children such as playing with them, helping them with homework, driving them around, or doing something else with them.” This item was adapted from the Quality of Employment Survey (Quinn & Staines, 1979). Minutes were subsequently converted to decimals to represent a proportion of an hour (see Appendix D for details).

Providing Emotional Support was assessed by asking fathers how much time in minutes and hours they spent in the past 24 hours “giving emotional support to anyone, like listening to their problems, giving advice, or comforting them?” (see Appendix E for details). Respondents were further asked, “who did they give support to?” *Providing Emotional Support* was created by dummy coding study days into whether fathers reported giving emotional support to their children or not. For each study day respondents received a score of “1” if they reported providing emotional support to their children on that day, and a “0” if they did not.

Fathers' daily work experiences.

Fathers' Daily work experiences were assessed using measures of paid work hours, work cutbacks, and work-related stressors.

Paid Work Hours were measured by asking respondents how much time in hours and minutes they spent each day on activities related to business or paid work (see appendix F for details). Minutes were subsequently converted to decimals to represent a proportion of an hour.

Cutbacks in Paid Work was assessed via two questions: (a) the quantity of work performed, and (b) the quality of work performed. The quantity of work performed was measured by asking fathers if they had to cutback on their normal activities today because of any problems with physical health or their emotions (see Appendix G for details). The quality of work performed measure asked fathers to report whether or not they had to cutback on the quality of their work today, in regard to how carefully they worked, due to emotional or physical problems (see Appendix G for details). *Work Cutbacks* was created by dummy coding study days into two categories. For each day respondents were given a score of "1" if they reported any type of cutback in either quantity or quality and a score of "0" if they did not.

Work related stressors were assessed through the DISE instrument as described above (Almeida, 1997) (see appendix C for stem questions). For the purposes of the present study events involving coworkers, supervisors, clients/customers, or other work-related individuals, as well as events categorized under the specific work classifications, were used.

Daily Work Tensions was created by dummy coding study days into two categories. For each study day respondents received a “1” if they responded affirmatively to the DISE stem questions and the stressor was categorized as an interpersonal tension involving a supervisor, coworker, client, customer, or other work-related individual. Respondents received a “0” for days in which they did not report such incidents.

Daily Work Overloads was created by dummy coding days into two categories. For each study day respondents received a “1” if the stressor they reported was categorized as a work-related overload, deadline, or demand, and a “0” if they did not report such incidents.

Daily Technical Breakdowns was created by dummy coding study days into two categories. For each study day respondents received a “1” if the stressor they reported was categorized as a work-related mechanical breakdown, technical breakdown, or mistake made by themselves or any work-related individual and a “0” if they did not report such incidents.

MIDUS stable measures.

The MIDUS survey included self-administered questionnaires and a one-time telephone interview. The MIDUS survey consisted of structured scales developed to tap aspects of the work and home environments including work schedules, job discretion, supportive work environments, spouses’ work schedules and supportive home environments. The following is a description of the specific measures from the MIDUS survey to be used in the present analyses.

Stable work characteristics.

Fathers' Work Schedule (Kessler et al., 1997) (designed for the MIDUS survey) was adapted from the 1987 National Survey of Families and Households. A series of questions obtained reports of respondents' work schedules. Respondents were asked the frequency of typical work schedules (e.g., in an average week how often do you work...days, evenings, nights, and weekends) (see Appendix H for details). Fathers Work Schedule was created by dummy coding respondents into two categories. Respondents received a "1" if they reported working days anytime between 7:00am and 5:00pm on four or more weekdays and a "0" if they did not.

Work Situation Control (Ryff & Baltes, 1976) was a one item Likert type scale designed to obtain ratings from respondents as to the amount of control they possess over their work situation. Respondents were also asked the amount of control they have over their current work situation. The question provided a response set ranging from "0" (None) to "10" (Very much). *Work Situation Control* was used as a continuous variable (see Appendix I for details).

Job Discretion (Gryzwacz & Marks, 2000; Whitehall, 1989) was measured by using a ten item scale that assesses the authority and skill the respondent has on the job. Respondents were asked on a questionnaire to indicate how often each of the job characteristics accurately described them on their job (see Appendix J for details). For instance, respondents were asked "How often do you have a choice in deciding what tasks you do at work?" The response set included a five point scale: 1 = Never, 2 =

Rarely, 3 = Sometimes, 4 = Most of the Time, 5 = All of the Time. *Job Discretion* was created by taking the mean level of all ten items (Cronbach's Alpha = .88).

Supportive Work Environment (Karasek & Theorell, 1990) was measured with a five item scale that assesses the degree to which respondents see their coworkers or supervisors as helpful and empathic. Through the self-administered MIDUS questionnaire, respondents were asked to indicate how often each item accurately described their job (see Appendix K for details). For instance, one question asks, "How often are your coworkers willing to listen to your Work-related problems?" The response set consisted of a five point scale ranging from 5, "All of the Time," to 1 "Never." Respondents who had no supervisor or coworkers could respond "does not apply." *Supportive Work Environment* was created by taking the mean level of only those scores that applied from the five questions (Cronbach's Alpha = .84).

Stable home characteristics.

Spouse Work Schedule (designed for the MIDUS study) was adapted from the 1987 National Survey of Families and Households and obtains reports of spouse's employment status and work schedule. In the MIDUS questionnaire, respondents were asked about the spouse or partner's current employment status and the frequency of typical work schedules for employed spouses (e.g., days, evenings, nights, and weekends). *Spouse Work Schedule* was created by dummy coding respondents into three mutually exclusive categories. Respondents received a "1" if their spouse was not employed in paid work, a "2" if their spouse was employed in paid work and worked a day shift on four or more weekdays, and a "3" if their spouse was employed in paid work

and worked evenings, nights, or weekends on four or more days (see Appendix L for details) (Cronbach's Alpha = .14).

Supportive Spouse (Gryzwacz & Marks, 2000) was measured using a six item scale that assesses the degree to which the respondent's spouse or partner provides affectual support (see Appendix M for details). Respondents were asked questions in regard to their relationship such as, "How much can you open up to her if you need to talk about your worries?" Response categories for each item included: 1= not at all, 2 = a little, 3 = some, and 4 = a lot. Supportive Spouse/Partner was created by taking the mean level of all six items from the scale (Cronbach's Alpha = .89).

Number of Children (NSFH, 1997) used standard questions to determine the number of biological and non-biological children under the age of 21 the respondent has and has helped raise (see Appendix N for details).

Plan of Analysis

This section describes the general analytic strategy that will be employed to address the research questions posed.

Descriptive Analyses

The first set of analyses will provide descriptions of the variables including their means, standard deviations, and intercorrelations. Statistics describing the following variables will be represented as the percentage of days in which fathers report any of the specific daily work or home experiences listed above during the workweek: Daily Emotional Support, Child-Related Stressors, Work Cutbacks, Daily Work Tensions, Daily Work Overloads, Daily Technical Breakdowns.

Insert Table 2 about here

Data Aggregation

To generate descriptive statistics and comparisons between fathers, the first step is to aggregate the data across all study days. Table 2 illustrates this procedure by providing an example of one respondent's daily reports and then the aggregate data across all study days. On the first workday of the interview, this father reported providing Emotional Support to his children and having experienced a Work Overload. On workday 2 this respondent reported none of the listed daily home or work experiences. On workday 3 this father reported providing Emotional Support to his Children, having a Child-Related Stressor, and experiencing a Work Overload. On workday 4 this father reported experiencing a Work Tension, and on workday 5 this father reported experiencing a Work Overload. The last two rows of the table show the respondent's aggregated data. For example, this respondent reported the following: having provided Emotional Support to his children on 2 of the 5 workdays, or 40% of the study days; having a Child-Related Stressor on 2 of the 5 workdays, or 40% of the study days; experiencing a Work Tension on 1 workday, or 20% of the study days; and, experiencing some form of mechanical or technical breakdown on none of the workdays, or 0% of the study days.

Bivariate Analyses

The major analytic strategies to be employed in this investigation will be standard OLS and multi-level regression analyses. Therefore, it is important to test for

multicollinearity. If variables are highly correlated it might indicate that they are closely related constructs. Bivariate relationships will be provided through correlational analyses. Such analyses allow the researcher to determine the degree to which individual variables are interrelated and to determine the strength and direction of associations.

Data sets

The data for the present study was configured into two separate types of data sets: (a) a father data set from which the between-father analyses were conducted, and (b) a father-day data set from which the within-father analyses were conducted.

Between-Father Analyses

Group means and standard deviations allow for comparisons to be made between fathers. Questions such as, “Do fathers who experience more work tensions spend more or less time with their children than fathers who experience fewer work tensions?” can be addressed using standard regression techniques. An example of a regression model for a between-father analysis can be expressed as follows:

$$\text{Home Experience}_i = a + b(\text{Work Experience}_i) + e_i$$

where Home Experience_i is a particular home experience (i.e., providing emotional support, caring for the child, or child-related stressors) of Father_i, Work Experience_i is the occurrence of a particular work experience (i.e., overload, interpersonal tension, cutback in productivity) reported by Father_i, a is the intercept, b is the slope indicating the impact of father_i's work experiences on his home experiences, and e_i is the random component of error.

While this analytic technique provides descriptive information about fatherhood, it is limited in its usefulness to describe the more proximal circumstances associated with daily fathering behaviors. The limitation of this type of analysis is that it views fathering as a static construct. Furthermore, by utilizing between-person comparisons, it is difficult to know whether the associations between work experiences and home experiences are due to some stable third variable such as commitment to parenting, sex-role attitudes, or level of education, etc.

Within-Father Analyses

To control for potentially confounding stable third variables and to better capture the dynamic phenomenon of the fathering process, within-father analyses will be conducted. Within-father comparisons use the father-day as the unit of analysis. In this way, fathers' commitment, attitudes, education, race, income, etc. are held constant and the comparison of means and standard deviations reflect the degree to which fathers vary within themselves from one day to the next. Moreover, the within-father analytic strategy will explore the daily covariation of specific work and home experiences within fathers over time. Thus, questions concerning the daily process of fathering can be addressed such as, "On days that fathers experience Work Tensions, do they spend more or less time with their children?"

Hierarchical Linear Modeling

The main data analysis method will be Hierarchical Linear Modeling (HLM: Bryk & Raudenbush, 1992; Mason, Wong, & Entwistle, 1984), a method that allows simultaneous estimation of both: (a) a separate within-person model of regression slopes

and intercepts for each respondent; and (b) a between-person model in which the within-person slopes and intercepts are treated as dependent variables regressed on person-level predictor variables. It is important to point out that this estimation procedure takes into consideration the amount of data available from each person, so that missing data on some occasions are taken into account by giving more weight to persons with complete data than those with some missing data (Demepster, Laird, & Rubin, 1977). Based on this feature of the analysis method, data analysis will work with respondent records even if they only completed the first of the eight diary days. Missing days in the middle of the series, such as when a respondent completed interviews on Days 1-4 and 7-8 but missed days 5-6, can be handled in the same way. Thus, instead of deleting all of the respondent's data due to a missed interview, this approach has the advantage of using all available data from a given respondent. The benefit of this is a more representative data set. For illustrative purposes, the simple form of an HLM can be conceived of as two separate models, one a within-person model (Level 1) and the other a between-person model (Level 2).

Question 1. To what extent do daily work experiences (e.g., work overloads, interpersonal tensions, work hours, cutbacks) predict fathers' daily experiences in the home (e.g., providing emotional support, time spent engaged with children, child-related stressors)? To examine Question 1 of the proposed study a series of within-person models will be fitted that assess the daily covariation of fathers' home experiences and work experiences. The Level 1 model can be expressed as:

$$\text{Level 1: Home Experience}_{it} = a_{0i} + a_{1i}(\text{Work Experience}_{it}) + e_{it} \quad (1)$$

where Home Experience_{it} is a particular home experience (i.e., providing emotional support, caring for the child, or child-related stressors) of Father_i on Day_t, Work Experience_{it} is the occurrence of a particular work experience (i.e., overload, cutbacks in productivity, interpersonal tension) reported by Father_i on Day_t (coded 0 if none of the particular work experiences occurred and 1 if a work experience occurred), a_{0i} is the intercept indicating Father_i's level of home experience on days when the father reported no work experiences, a_{1i} is the transformation slope indicating the impact father_i's daily work experience on his home experience, and e_{it} is the random component or error of Father_i on Day_t. In order to estimate average effects for the entire sample, the intercepts and slopes of the Level 1 within-person model become the outcomes for the Level 2 between-person equations, as follows.

$$\text{Level 2: } a_{0i} = b_0 + d_i, \quad (2)$$

$$a_{1i} = b_1 + g_i, \quad (3)$$

Equation 2 shows that Father_i's average home experience score across the diary days (a_{0i}) is a function of the intercept for the entire sample--the grand mean of the sample--and a random component or error (d_i). Likewise, equation 3 shows that Father_i's transformation slope (a_{1i}) is a function of the grand mean of the entire sample, and a random component or error (g_i). In this way work to home transformation is operationalized as the average slope between occurrence of daily work experiences and home experiences (b_1). I plan to use this model to examine a variety of daily work experiences (e.g., overloads, interpersonal conflicts, cutbacks, work hours)

Question 2. How do stable work characteristics (e.g., Fathers' Work Schedule, Work Situation Control and Supportive Work Environment) and family factors (e.g., Spouse Work Schedule, Number of Children) moderate the day-to-day linkages of work experiences and fathering behaviors? The next set of analyses will address the second research question by examining the extent to which daily work to home transformation is moderated by stable work conditions and family characteristics.

A distinctive feature of HLM is that the intercepts and slopes are allowed to vary across persons (Lee & Bryk, 1989). Therefore, between-person models of within-person variability can be formulated.

Moderators of work to home transformation will be examined by fitting the following model:

$$\text{Level 1: Home Experience}_{it} = a_{0i} + a_{1i}(\text{Work Experience}_{it}) + e_{it}, \quad (4)$$

$$\text{Level 2: } a_{0i} = b_0 + b_1(\text{WKC}) + b_2(\text{FAMC}) + b_3(\text{WKC X FAMC}) + d_i, \quad (5)$$

$$a_{1i} = b_4 + b_5(\text{WKC}) + b_6(\text{FAMC}) + b_7(\text{WKC X FAMC}) + g_i, \quad (6)$$

where the within-person Level 1 (equation 4) is identical to the original within-person transformation model (equation 1). At the between-person, Level 2, individual intercepts and transmission slopes are modeled as a function of an intercept, WKC (Work Conditions), FAMC (Family Characteristics), and Work Conditions X Family Characteristics interaction. The b_1 , b_2 , and b_3 coefficients can then be used as estimates of the association of daily home experiences with stable individual differences in work conditions, family characteristics, and their interaction. Of particular interest is equation 6. The b_5 and b_6 coefficients are estimates of the extent to which the transformation

slopes (a_{1i}) vary according to work conditions and family characteristics. Finally, the b_7 coefficient indicates the interactive effects of stable work and family variables on work to home transformation. If this coefficient is statistically significant, supplementary analyses will be performed to test the nature of this interaction.

CHAPTER IV

RESULTS

Table 3 presents a description of the variables for Daily Home Experiences, Daily Work Experiences, and Stable Home and Work Characteristics. The first four columns present the mean, standard deviation, and range for each variable. The correlation matrix is demarcated by triangles representing intercorrelations within domains of Daily Home and Work Experiences and Stable Work and Home variables. The Daily Home and Work Experiences data for these analyses are aggregated across the workweek.

Insert Table 3 about here

Daily Home Experiences

The first three variables describe fathers' Daily Home Experiences. The mean of Time with Children is 2.13 hours per work day and represents the number of hours fathers were actively engaged in some activity with their children for each study day, a finding that is consistent with previous research in regard to child engagement (Pleck, 1997). The standard deviation and range for Time with Children reflects variation in the daily engagement of fathers and their children in this sample. While some fathers spent a fairly substantial amount of time with their children during the workweek, others did not. The mean for Emotional Support represents the percentage of workdays that fathers provided Emotional Support to their children. On average, fathers provided Emotional Support to their children on 9% of the workdays, which translates to approximately one

episode of Emotional Support every ten working days. Interpreting the mean and standard deviation together, the positive skew suggests that the provision of Emotional Support to children was not a frequent occurrence for these fathers. The mean for Child-Related Stressors represents the percentage of workdays that fathers experienced some sort of stressful event involving both themselves and their children such as interpersonal tensions or overloads. Fathers were involved in a Child-Related Stressor on 6% of the workdays or one stressor every 15 working days. The standard deviation indicates that approximately two-thirds of these fathers experienced a Child-Related Stressor on fewer than 20 percent of workdays.

Intercorrelations within the Daily Home Experiences domain show that Emotional Support is positively correlated with Time with Children. Fathers who spent more time with their children also were prone to providing them with more Emotional Support than fathers who spent less time with their children. Moreover, fathers who experienced more Child-Related Stressors were also more likely to have provided more Emotional Support to their children than fathers who experienced fewer Child-Related Stressors. It appears that as Child-Related Stressors increase, fathers are more likely to be called upon to provide their children with Emotional Support. The association between Time with Children and Child-Related Stressors approached zero suggesting some independence of these two variables.

Daily Work Experiences

The next five variables describe fathers' Daily Work Experiences. Work Hours represent the amount of time fathers were involved in gainful employment, which equates

to almost 9 hours per work day on average. While the range of Work-Hours is quite wide, the standard deviation indicates that the vast majority of fathers worked between 6.5 and 11.5 hours per day on average. Fathers experienced Work Cutbacks on 9% of the workdays or about one cutback day out of every two workweeks. The standard deviation and mean reveal a positive skew meaning that for many fathers Work Cutbacks were not frequent experiences. Work-Tensions (e.g., interpersonal tensions with coworkers) occurred on 12% of workdays or one day out of 8 workdays. Work Overloads occurred on 9% of workdays or once every ten working days on average. Technical Breakdowns occurred on 3% of workdays or about nine times a year on average. While the range for these variables indicates that some fathers reported one of these work-related experiences as occurring on nearly every workday, interpreting the mean and standard deviation together suggests that for most fathers these experiences are not everyday events, but rather they occur infrequently throughout the workweek.

Intercorrelations within the Daily Work Experience domain show that fathers who reported working more hours also had a tendency to experience more Work-Related Tensions. Work-Related Tensions is also positively associated with Work Cutbacks, suggesting that fathers who reported more cutbacks in the quantity or quality of their work also tended to report more Work-Related Tensions as well. No other variables were significantly correlated within this domain, giving some support for the independence of each variable.

Stable Work Characteristics

Stable Work Characteristics are represented in rows 9 through 12. The mean of Father's Work Schedule indicates that 84% of respondents worked a standard daytime schedule: Monday through Friday. Work Situation Control, rated on a scale from 0 to 10 by respondents, was rated relatively high by this sample of fathers with approximately two-thirds reporting moderate to nearly complete control over their work situations. Likewise, Job Discretion was rated moderately high by most respondents, falling no lower than 1.5 (on a scale from 1 to 5). Supportive Work Environment also received a moderately high rating. The standard deviations for Job Discretion and Supportive Work Environment indicate that approximately two-thirds of the fathers reported having some discretion in the nature of their work and having supportive coworkers and supervisors between "some of the time" and "all of the time."

Intercorrelations within the domain of Stable Work Characteristics indicate that fathers who reported working a standard shift also were more likely to report having higher levels of Job Discretion. Higher levels of Job Discretion were also associated with higher levels of Work Situation Control. The moderate level of correlation between Job Discretion and Work Situation Control might indicate some overlap of these constructs. However, correlations with the Daily Work variables provides discriminant validity, suggesting that these items are also tapping into discrete areas as well. For instance, Work Situation Control is negatively associated with Work Cutbacks and Technical Breakdowns, yet Job Discretion is not significantly associated with either of these variables.

Stable Home Characteristics

Stable Home Characteristics are presented in rows 13 through 15. The mean and standard deviation for Spouse Work Schedule indicates that more than two-thirds of spouses were involved in gainful employment and worked either a standard daytime shift or non-standard shift, whereas the remainder were in a non-employed status. This sample of fathers reported relatively high levels of Spouse Support reflected in the response set which ranged from 1 to 4. The mean and standard deviation suggest that most respondents reported between 3 and 4, on average, for Spouse Support. Finally, the mean and standard deviation for the Number of Children variable indicates that approximately two-thirds of respondents had between one and three children. There were no significant intercorrelations for the Stable Home Characteristics, which indicates some degree of independence of the constructs in this domain.

Associations Across Work and Home Domains

Time with Children is negatively associated with Work Hours and positively associated with Work Cutbacks. Fathers who spent longer hours at work tended to spend less time with their children, whereas those who cutback at work spent more time with their children. Work Cutbacks is also positively associated with the provision of Emotional Support and experiencing Child-Related Stressors. Fathers who reported more Work Cutbacks also tended to provide more Emotional Support to their children and reported more Child-Related Stressors as well. Emotional Support is positively related to Work Overloads such that as Work Overloads increased, so too did the provision of Emotional Support to Children. Finally, the Number of Children under age 21 and living

in the household is positively associated with both the number of hours spent with children (Time with Children) and the percentage of days fathers experienced a Child-Related Stressor. Fathers who had more children also reported more time spent involved with their children and had a greater likelihood of being involved in a Child-Related Stressor.

Father's Work Schedule and Work Situation Control were each negatively related to Work Cutbacks. Fathers who work a standard shift tended to experience fewer cutbacks. However, fathers who reported less Work Situation Control also tended to report more Work Cutbacks. Fathers who reported lower levels of Work Situation Control also had a tendency to report higher occurrences of Technical/Mechanical Breakdowns as well. Furthermore, Tech/Mech Breakdowns were also associated with Spouses' Work Schedule. Fathers whose spouses worked a non-standard shift (evenings, nights, or weekends) tended to report more Tech/Mech Breakdowns as well. Interestingly, Spouse's Work Schedule showed a positive association with Work Cutbacks. Fathers whose spouses worked a non-standard shift were also more likely to have reported more cutbacks in the quantity or quality of their work. On the other hand, fathers who reported higher levels of spouse support (Supportive Spouse), also reported a lower prevalence of Work Cutbacks. Furthermore, fathers who reported higher levels of spousal support also tended to report fewer Work-Related Stressors and a higher degree of Work Situation Control.

Intercorrelations were performed controlling for the RDD/Twin status variable. In partial correlation, the contribution by a particular variable (in this case RDD vs. Twin

status), is removed from both variables being correlated (Tabachnik & Fidell, 1996), so that only the overlap independent of the RDD status is attributable to the correlation. Of the 105 correlations (21 statically significant), only one pairing lost significance (Work-Related Stressors / Work Cutbacks) when the RDD/Twin status variable was partialled. The average correlation coefficient difference for the 105 correlations was +/- 0.015. Based on these results, it appears that the status of the respondents, whether from the RDD or twin samples, is irrelevant in terms of correlational patterns. Therefore, the correlation matrix reflects correlation coefficients without a partial correlation for RDD/Twin status.

Between-Fathers Multiple Regressions

The next set of analyses examined the between-person differences among this sample of fathers. Multiple regression analysis provides an estimate of the unique predictive capabilities of each of the Daily Work and Daily Home variables. A second reason for conducting the following analyses was to explore the moderating effects of the stable Work and Home Characteristics. To do this, two series of multiple regression models were run. In the first series the Daily Home Experience variables were regressed on the Daily Work variables (Step I), Stable Work variables (Step II), and the interaction terms between Daily Work and Stable Work variables (Step III). In the second series of multiple regression, the Daily Home Experience variables were regressed on the Daily Work variables (Step I), the Stable Home variables (Step II), and the interaction terms between Daily Work and Stable Home variables (Step III). In an effort to reduce multicollinearity, all independent variables were centered on their mean. The nature of

the interaction was probed by fitting the regression equation with the values of each of the variables contained in the interaction term one standard deviation above and below the mean, then plotting the results. The Daily Home and Work Experiences data for these analyses are aggregated across the workweek.

Multiple Regression Incorporating Stable Work Characteristics

Table 4 presents the findings of the first series of hierarchical multiple regressions. The results presented in this table represent a net model incorporating all of the possible predictors, including Stable Work Characteristics and their interaction terms. Interaction terms found to be significant in Step III of the net regression model are only interpretable if there is a significant change in R^2 from Step II to Step III. The net model predicting Time with Children and Child-Related Stressors did not result in a significant change in R^2 , possibly due to the number of predictor variables contained in the model. When the change in R^2 was not significant, a gross model was run with the main effects and only those interaction terms shown to be significant in the net model. This procedure was undertaken to determine if the explanatory power of the model could be enhanced using only those variables with the strongest predictive capabilities.

Insert Table 4 about here

Time with Children. The first three columns in Table 4 show the results for the time fathers spent with their children. For each additional hour worked by fathers, they spent approximately seven minutes less time engaged in activities with their children (- .11 X 60 minutes). Furthermore, for each additional Work Cutback experienced by

fathers they spent approximately one-and-a-half additional hours with their children (1.46 X 60 minutes). The first step of the multiple regression model incorporating all of the Work Experience variables accounted for 8 percent of the total variance of Time with Children ($p < .01$). None of the Stable Work variables (Step II) uniquely predicted Time with Children.

Although the change in R^2 from Step II to Step III was not significant as shown in Table 4, in the refined model (not shown in table), change in R^2 was significant ($F \Delta R^2 = 3.25, p < .05$) when only the interaction terms representing Father's Work Schedule X Cutbacks and Supportive Work Environment X Work Hours were added to the model in Step III. The unique effect of Father's Work Schedule X Work Cutbacks was not significant in the gross model. However, the interaction term representing Supportive Work Environment X Work Hours was significant ($B = -.11, p < .05$). Figure 2 shows that the negative relationship between Time with Children and Work Hours was greater for fathers reporting higher levels of work support. Fathers who reported higher levels of support in their work environments tended to spend significantly more time with their children when working fewer hours and significantly less time with their children when working more hours, as compared to fathers with less supportive work environments.

Insert Figure 2 about here

Child-Related Stressors. The middle three columns show the results for the Child-Related Stressors experienced jointly by fathers and their children. Only one variable uniquely predicted Child-Related Stressors from Step I of this multiple regression model:

Work Cutbacks. Those fathers who reported having fewer Work Cutbacks (that is, they reported fewer reductions in the quality and quantity of their work) also experienced fewer Child-Related Stressors. Step I of the model explained 4 percent of the variance involving Child-Related Stressors.

In the refined model (not shown in table), there was a significant change in R^2 from Step II to Step III ($F \Delta R^2 = 6.34, p < .05$) when only the interaction term representing Father's Work Schedule X Work Cutbacks was added to the model in Step III. An interaction was detected in terms of the type of shift the fathers worked. Figure 3 shows that the relationship between Child-Related Stressors and Work Cutbacks depended upon the fathers' Work Schedules. Fathers working non-standard shifts (evenings and weekends) showed no change in the proportion of Child-Related Stressor days regardless of the proportion of Cutback days. However, fathers who worked standard shifts and had a higher proportion of Cutback days were less likely to report stressful events involving their children as compared to fathers who worked a non-standard shift.

Insert Figure 3 about here

Providing Emotional Support. The last three columns of Table 4 show the results for fathers Providing Emotional Support to their children. Providing Emotional Support was uniquely predicted by only one of the Daily Work Experience variables: Work Overloads. Fathers who reported more overloads at work tended to provide more support to their children compared to fathers who had fewer overloads. Step I of the multiple regression model accounted for 7 percent of the total variance of Providing Emotional

Support ($p < .01$). The change in R^2 from Step II to Step III was significant for this model ($F \Delta R^2 = 1.84, p < .05$). In Step III of the model, three interactions were detected.

The relationship between Technical/Mechanical Breakdowns and the percentage of days fathers provided emotional support to their children was dependent upon the level of control fathers experienced over their work situations. Figure 4 shows that fathers, who had higher levels of Work Situation Control and who experienced a lower proportion of Tech/Mech Breakdown days, provided their children with Emotional Support on a higher percentage of days. Conversely, fathers with higher levels of Work Situation Control and higher levels of Tech/Mech Breakdown days provided their children with less Emotional Support as compared to fathers with lower levels of Work Situation Control.

Insert Figure 4 about here

The relationship between the Provision of Emotional Support and Work Cutbacks depends on the level of support fathers receive in the workplace. As illustrated in Figure 5, fathers who reported higher level of Work Environment Support provided a high percentage of Emotional Support days regardless of the level of Work Cutbacks. However, fathers with low levels of Supportive Work Environments who reported higher levels of Work Cutbacks, were slightly more likely to provide their children with Emotional Support. The entire model accounted for 20 percent of the total variance in Providing Emotional Support.

Insert Figure 5 about here

The degree of support received from coworkers and supervisors (Supportive Work Environment), moderated the relationship between the provision of Emotional Support to children and both the percentage of days fathers experienced an interpersonal tension at work (Work-Related Tensions) as well as the percentage of days fathers had to Cutback in the quality or quantity of their work (Work Cutbacks). As shown in Figure 6, fathers who reported a higher proportion of Work Tension days and reported higher levels of Supportive Work Environments provided their children with more Emotional Support as compared to fathers with less Supportive Work Environments. However, those fathers with lower levels of Work Support and higher levels of Work Cutbacks tended to also provide their children with higher levels of Emotional Support as compared to those fathers with fewer Cutbacks.

Insert Figure 6 about here

Note: An additional series of analyses were conducted to test the difference between the weighted and unweighted RDD samples and to determine if there exists a significant difference between the RDD and Twin samples. A comparison of the regression coefficients (Cohen, A., 1983; Clogg, Petkova, & Haritou, 1995) revealed that Work-Related Stressors (e.g., interpersonal tensions with coworkers), when regressed on Child-Related Stressors and provision of Emotional Support, had a significant difference. The

unweighted sample is somewhat biased towards fathers who experience more interpersonal tensions in the workplace than might occur in the general population.

Another comparison of coefficients was conducted to determine if there existed a significant difference between the RDD and Twin samples. The comparison was done by first regressing the daily Work Experiences variables (Work Hours, Work Productivity, Work-related Stressors, Work Overloads, and Technical Breakdowns) against the three Home Experiences variables (Child Hours, Emotional Support, and Child-Related Stressors) for the unweighted RDD and Twin samples separately. The formula used to compare the coefficients was provided by Clogg, Petkova, and Haritou (1995)

$$Z = (B_R - B_T) / [S^2_R (B_R) + S^2_T (B_T)]^{1/2}$$

Where z is the outcome variable, B_R is the coefficient for the RDD sample, B_T is the coefficient for the Twin sample, S^2_R is the variance for the RDD sample, and S^2_T is the variance for the Twin sample.

A difference was detected in terms of the Work Experiences variables regressed only on the variable, Emotional Support. This may indicate that fathers from the RDD sample who experience more Work Overloads or more Technical Breakdowns are also somewhat more likely to provide their children with Emotional Support than are fathers from the Twin sample. Fathers from the Twin sample, on the other hand, who experience longer work hours, more interrupted productivity, or more Work-Related stressors, tend to provide more Emotional Support to their children than the fathers from the RDD sample who have similar work related experiences. Based on the results of these tests,

caution will be taken in interpreting findings, especially in terms of fathers' provision of emotional support.

Furthermore, some fathers had missing data related to Stable Work characteristics, which involved two variables: Supportive Work Environment and Job discretion. Fathers who had missing data for the variable, Supportive Work Environment, accounted for less than 15% of the total sample. They were slightly older than those with complete data and reported slightly higher levels of job discretion. There were no other significant differences detected in level of income, education, hours worked, or their control over their work situation. Furthermore, there were no differences detected in levels of the three outcome variables.

Fathers who had missing data for the variable Job Discretion accounted for about 8% of the total sample and differed in level of income only. Those with incomplete data had slightly less annual income than those with complete data. No other differences were detected in terms of level of education, work hours, work situation control or the three outcome variables.

There appeared to be no systematic reason for the missing data and therefore missing data was replaced with the mean level responses, calculated based on all other respondents in this inquiry. After making a mean level substitution for missing values, a series of regressions were completed to determine if there was a dramatic change in the overall predictive capacity of the model after the replacement was done as compared to prior. The variable Emotional Support of Children was significant before and after the substitution took place. Small changes were detected in the F-values and the R^2 , and

virtually no change in the probability. Slight changes were detected in terms of the outcome variables: Time with Children, and Child-Related Stressors. Each increased in significance when the larger N was made available through the substitution. The R^2 changed only somewhat as did the F-value.

Multiple Regression Incorporating Stable Home Characteristics

Table 5 presents the findings of the second series of hierarchical multiple regressions. As with Table 4, the results presented in this table represent a net model incorporating all of the possible main effects including: Daily Work Experiences in Step I, Stable Home Characteristics in Step II, and the interaction terms between Daily Work and Stable Home variables. The net model predicting Time with Children and Child-Related Stressors did not result in a significant change in R^2 from Step II to Step III. Therefore, a refined model was run with the main effects and only those interaction terms shown to be significant in the net model.

Insert Table 5 about here

Time with Children. The first three columns of Table 5 show the results for Home Characteristics and the time fathers spent with their children. In regard to Time with Children, a significant change in R^2 was detected ($F \Delta R^2 = 5.17, p < .05$) in the gross model (not shown in the table) when the variable representing Number of Children X Work Tension was added to the model in Step III. As shown in Figure 7, the association between Time with Children and Work Tensions was dependent upon the Number of Children in the household. Fathers who reported having more children in the household

and a lower proportion of Work-Related Tensions. spent more time with their children as compared to those fathers with fewer children also experiencing a low proportion of Work-Related Tensions.

Insert Figure 7 about here

Child-Related Stressors. The middle three columns present the results for Home Characteristics and Child-Related Stressors. Aside from the main effect, Work Cutbacks, the only other variable uniquely predicting Child-Related Stressors was the Number of Children in the household. However, none of the interaction terms nor the change in R^2 emerged significant.

Providing Emotional Support. The last three columns of Table 5 show the results of the final series of multiple regressions. Fathers who Cutback more at work were more likely to provide their children with Emotional Support. Furthermore, when the main effects of Stable Home Characteristics were added to the model in Step II, the result was a significant change in R^2 ($F \Delta R^2 = 4.25, p < .01$). Furthermore, the change in R^2 from Step II to Step III in the net model reflected in Table 5 was significant ($F \Delta R^2 = 2.21, p < .01$) and therefore the findings may be interpreted. Again, the Number of Children uniquely predicted Providing Emotional Support ($\beta = .08, p < .05$). Several of the Stable Home Characteristic variables moderated the relationship between Daily Work Experiences and the daily provision of Emotional Support. Figure 8 shows that the relationship between the occurrence of Technical or Mechanical Breakdowns and the provision of Emotional Support to children depended upon the type of shift worked by spouses (Spouse

Schedule). Fathers who experienced higher levels of Tech/Mech Breakdowns had a greater tendency to provide Emotional Support to their children if their spouses worked a non-standard work schedule.

Insert Figure 8 about here

Furthermore, having a supportive spouse moderated the relationship between Emotional Support to Children and both Work Cutbacks and Work Overloads. As shown in Figures 9 and 10, the negative relationship between Emotional Support and Work Cutbacks was greater for fathers who reported lower levels of Spousal Support. The positive relationship between Work Overloads and Emotional Support was slightly greater for fathers who reported higher levels of Spousal Support.

Insert Figures 9 and 10 about here

Lastly, the relationship between Work-Tensions and provision of Emotional Support depended on the Number of Children in the household. As shown in Figure 11, fathers with larger families and higher levels of Work-Tensions had a tendency to provide less Emotional Support to their children. The entire model accounted for 20 percent of the variance for Providing Emotional Support ($p < .01$).

Insert Figure 11 about here

Within-Fathers Hierarchical Linear Models (HLM)

Much of the extant research examining the link between work and family has relied on between-person analyses. Within-person analyses helps to control for potentially confounding temporally stable third variables and better captures the dynamic nature of the fathering process.

The next series of analyses examined the within-person variation of fathers work and home experiences. Hierarchical linear modeling was used to assess the predictive capabilities of each of the Daily Work and Daily Home variables. As stated in the Plan of Analysis, this method allows for simultaneous estimation of both the within-person model of regression slopes and intercepts for each respondent as well as the between-person model where the within-person slopes and intercepts become the dependent variables regressed on the person-level predictor variables. As with the between-father regression analyses, two series of hierarchical linear models were performed. In the first series the Daily Home Experience variables were regressed on the Daily Work variables (Step I), Stable Work variables (Step II), and the interaction terms between the Daily Work and the Stable Work variables (Step III). In the second series of HLM analyses, the Daily Home Experience variables were regressed on the Daily Work variables (Step), the Stable Home variables (Step II), and the interaction terms between Daily Work and Stable Home variables (Step III). Unlike conventional regression, where all of the variables are entered together to determine the unique predictive capabilities of individual variables net all others, the variables for HLM analyses are entered in gross models with only two main effects and their interaction term entered for each separate set of analyses.

In an effort to reduce multicollinearity, the Stable Work and Home variables were centered on their mean. In these analyses the Daily Home and Work Experiences data are not aggregated across the workweek, but rather the person-day becomes the unit of analysis.

HLM Incorporating Stable Work Characteristics

Table 6 presents the findings of the first series of HLM analyses which regressed each of the Daily Home Experiences on the Daily Work experience variables, Stable Work Characteristics, and their interaction terms.

Insert Table 6 about here

Time with Children. The first three columns of Table 6 show that, consistent with the between-father regression analyses, the within-father HLM analyses showed an association between fathers' Work Hours and Time with Children. On days fathers worked additional hours, for each additional hour worked, they spent approximately 12 minutes less engaged in some activity with their children. The remaining Daily Work experience variables and the Stable Work Characteristics variables were not significant predictors of Time With Children when examined solely as main effects, however several interaction terms were significant.

Figure 12 shows that on days fathers with greater control over their Work Situation experienced a Mechanical or Technical Breakdown at work, they were less likely to spend time with their children as compared to fathers who had similar Work Breakdowns, but who reported less Work Situation Control. Figure 13 shows that on days

fathers with greater Job Discretion worked fewer hours, they were more likely to spend time with their children than fathers with lower levels of Job Discretion. Figure 14 shows that on days fathers with greater levels of Job Discretion experienced Work Overloads, they were slightly less likely to spend time with their children as compared to fathers with less Job Discretion who also experienced Work Overloads.

Insert Figures 12, 13, 1 and 14 about here

Child-Related Stressors. The middle three columns show the results for Child-Related Stressors. These results are presented in Odds Ratios. An odds ratio is an association between a predictor variable and an outcome variable and can be interpreted as the predicted likelihood of having one event occur given the occurrence of another event. So for instance, one can predict the odds that a father will experience a Child-Related Stressor on the same day that he has experienced a Work Cutback. One variable emerged as a significant predictor of Child-Related Stressors. On days fathers experienced a Work Cutback, they were almost twice as likely to also experience a Child-Related Stressor (OR = 1.96, $p < .05$).

Providing Emotional Support. The final three columns show the results for fathers Providing Emotional Support to their children. One main effect and several interaction terms significantly predicted the Provision of Emotional Support. On days fathers experienced a Cutback at work they were two-and-a-half times more likely to have also provided their child with Emotional Support on that day. Several interactions also emerged.

Figure 15 shows that on days fathers with low levels of Work Situation Control experienced a Work-Related Tension they were less likely to have provided their children with Emotional Support than fathers with high levels of Work Situation Control having also experienced a Work-Related Tension. Figure 16 shows that on days fathers, with low levels of Work Situation Control, experienced a Tech/Mech Breakdown, they were more likely to have provided their children with Emotional Support than those with higher levels of Work Situation Control. Furthermore, Figure 17 shows that on days fathers with

lower levels of Supportive Work Environments experienced a Work-Related Tension. they were less likely to have Provided Emotional Support to their children than fathers with higher levels of Supportive Work Environments.

Insert Figures 14, 15, 16 and 17 about here

HLM Incorporating Stable Home Characteristics

Table 7 presents the findings of the second series of HLM analyses which regressed each of the Daily Home Experiences on the Daily Work experience variables. Stable Home Characteristics, and their interactions terms. The results reflected in Step I represent identical results to those presented in Step I of Table 6. but were repeated here for ease of reference.

Insert Table 7 about here

Time with Children . The first three columns of Table 7 show the results for fathers Time with Children. Two interaction terms were significant as reflected in Step III of the HLM analyses. Figure 18 shows that on days fathers, whose spouses work non-standard work shifts, work additional hours, they spend less time engaged in activities with their children. Figure 19 shows that on days fathers. whose spouses work a non-standard shift, Cutback on their work quality or quantity. they spent less time engaged in

activities with their children as compared to fathers whose spouses are either not employed or work standard day-time shifts.

Insert Figure 18 and 19 about here

Child-Related Stressors. The middle three columns of Table 7 describe the results of the HLM analyses for Child-Related Stressors. The odds of fathers experiencing a Child-Related Stressor increases in correspondence with the Number of Children in the household. No interaction terms uniquely predicted Child-Related Stressors.

Providing Emotional Support. The last three columns in Table 7 show the results for fathers Providing Emotional Support to their children. Again, Number of Children is a significant predictor of the provision of Emotional Support. The odds of providing Emotional Support on a daily basis to children increases in correspondence to the Number of Children in the household.

As shown in Figure 20, on days fathers with a greater number of children experience an interpersonal tension at work, they are less likely to provide Emotional Support to their children as compared to fathers with fewer children.

Insert Figure 20 about here

CHAPTER V

DISCUSSION

The primary premise of the present investigation was that fathering should be viewed as a process which integrates work and family roles in a complex weave. The case was made that men's work and family roles are linked and that work experiences can both enhance or inhibit men's fathering behaviors. To test this conjecture the present study explored how daily work experiences were differentially predictive of fathering behaviors at home. In addition, to better understand the micro processes of fathering, the contextual aspects of fathers' work and home characteristics were also incorporated into the study. This chapter is a discussion of the findings as they relate to these topics. Limitations of the present study as well as implications for organizational policy and future research will also be presented.

Daily Work Experiences

The first research question asked the extent to which Daily Work Experiences differentially predicted men's daily fathering experiences at home. Fathers' interactions with their children were expected to decrease on days they experienced increased Work Hours, Work Cutbacks, or Work-Related Stressors (e.g., tensions, overloads, or breakdowns).

The results of both the between-father multiple regression and the within-father hierarchical linear model analyses supported the hypothesis that increased work hours reduce the amount of time fathers spend with their children. This finding is consistent with the zero sum hypothesis, that time dedicated to one pursuit necessarily detracts from

time committed to another pursuit (Barnett, 1998). Prior research has shown a direct negative relationship between the number of hours in paid work and paternal engagement (Pleck & Stueve, 1997). It is possible to infer from the findings that men who work more hours tend to spend less time engaged in activities with their children. The difficulty in interpreting across fathers is that researchers can not be certain whether or not the differentiation is due to some stable third variable such as attitude toward fathering or if something else is affecting this relationship. Within-father analysis helps clarify this matter by showing that regardless of stable, potentially confounding, third variables, on days when fathers work more hours they spend less time with their children.

The expectation that Daily Work-Related Tensions and Technical/Mechanical Breakdowns would diminish the occurrence of fathering experiences is inconclusive. However, the between-father analyses revealed a significant positive relationship between Work Overloads and the Provision of Emotional Support. Correlational analyses also support this finding. However, the direction of the association between Work Overloads and Providing Emotional Support is opposite what was hypothesized. Having a high level of overloads at work appears to enhance the father-child relationship in terms of providing emotional support. This finding is inconsistent with Repetti's (1989) finding that excessive demands at work are associated with emotional withdrawal at home.

There are two probable explanations for the present finding. First, respondents are reporting overloads due in part to the needs and demands of their children. Fathers who report higher levels of Work Overloads do so because they are highly involved in their children's emotional lives. Having to attend to the needs of their children, fathers may

feel added pressure to complete work tasks, perhaps under time constraints, which create overloads at work. Second, perhaps fathers, occupying the role of problem-solver, focus on solving problems at work in terms of meeting the demands of their job, and then continue in that same mode at home by attending to the emotional needs of their children. Unfortunately, the within-father analyses were inconclusive in regard to overloads and emotional support. Perhaps future studies can investigate this seemingly counterintuitive phenomenon further to determine the mechanism of this relationship.

Prior research has not directly examined cutbacks in the quantity and quality of work in terms of the work-family interface. In the present investigation cutbacks at work were expected to result in decreased father-child interactions due to the emotional disappointment men would experience when outcomes and attainment of instrumental goals were not achieved (Larson & Pleck, 1997). However, the findings indicate that Cutbacks in Work productivity are positively associated with each of the Daily Home Experiences. Work Cutbacks is a strong and consistent predictor of each of the three outcome variables (Time with Children, Child-Related Stressors and Providing Emotional Support) in both the between-father and within-father analyses.

One possible explanation for the positive association between Work Cutbacks and fathering experiences is that cutbacks are closely and negatively related to time at work. In other words, fathers who cutback are spending less time at work and more time at home. However, the findings do not support this explanation. While the correlational analyses show that Work Cutbacks are positively associated with Time with Children. Work Cutbacks are not associated with Work Hours. Therefore, cutting back on the

quality or quantity of work does not simply translate to having less time at work and therefore more time to spend with children. Rather, the within-father HLM analyses suggests a more complex relationship supporting the theoretical formulation of transforming experiences from the work setting to the home setting.

The present study proposed that the linkage between ecological settings can be tested by revealing evidence of a transformation process where father's work experiences differentially predict fathering behaviors. Transformation extends previous concepts of spillover and transmission, which each denote a direct correspondence between sender and receiver. The concept of transformation implies that experiences in one setting are expected to undergo a transformation of sorts and emerge as behaviors in another setting. Findings from the present study provide evidence of both the linkage between work and family for fathers and a transformation of work experiences to home behaviors.

Findings from the within-father HLM analyses provide some evidence supporting the transformation of fathers' work and home experiences. On days fathers experience a Cutback at work, they are two to two-and-a-half times more likely to be involved in a Child-Related Stressor or Provide Emotional Support (respectively) to their children than on days they do not have a Cutback. Whereas a direct correspondence between Work Cutbacks and home experiences might suggest that men would "cutback" on their fathering behaviors, that does not appear to be the case. Fathers are engaged with their children on days they cutback at work. Perhaps fathers have a desire for accomplishment and on cutback days at work that desire is not met. However, as suggested by Barnett (1993) and Weiss (1985), work and family roles for men are synergistic, not segmented.

Therefore under certain circumstances, such as cutback days, work and family roles complement each other. Perhaps on cutback days, in an attempt to fulfill their desire for accomplishment, fathers turn their attention to their children and provide for their children's emotional needs. Thus, the relationship between Work Cutbacks and Emotional Support is illustrative of work experiences emerging in a different and predictive form as parenting behaviors.

Stable Work Characteristics

The second research question asked how stable work characteristics such as work schedules, work situation control, job discretion, and supportive work environments moderate the day-to-day linkages of work experiences and fathering behaviors. The expectation was that having more control over the work environment, greater job discretion, a standard daytime shift, and a supportive climate at work would mitigate the noxious effects of work stressors and enhance the fathering experience.

Control over the work environment (Work Situation Control) and autonomy and latitude over work tasks (Job Discretion) do moderate the relationship between stressful events that occur at work and fathering experiences at home, but not precisely as hypothesized. While Time with Children was shown to decrease on days fathers experienced a work stressor, the decrease was slightly more pronounced, in some cases, for fathers with higher levels of control and discretion in the workplace. Fathers with higher levels of these work characteristics appear to spend slightly less time engaged in activities with their children on work-stressor days as compared to fathers with lower levels of control and discretion. Interestingly, fathers with higher levels of control and

discretion at work spend somewhat more time with their children on routine days when no work stressors occur, which accounts for the majority of work days. Therefore, it may be that the mitigating effects of having control over the work situation or possessing higher levels of job discretion are evident on the more prevalent routine days than work stressor days for these fathers. These findings appear to support the claim that fathers have more discretion in how they use their time (Barnett, 1989; Larson, 1993; Walker, 1989). Perhaps having more control over the work environment and discretionary latitude in regard to work tasks affords fathers the opportunity to spend more time with their children until such time as a situation arises that calls for their attention elsewhere.

The findings concerning the moderating effects of the Stable Work Characteristics on the Provision of Emotional Support are less conclusive than the effects on Time with Children. HLM analyses shows that having higher levels of control over the work situation or being in a more supportive work environment increases the likelihood of fathers Providing Emotional Support to their children on days they experience a Work-Related Tension. OLS regression also supports this finding. Fathers reporting both higher levels of work support and higher levels of Work-Related Tensions are more likely to Provide Emotional Support to their children, as compared to fathers with lower levels of support. This finding is consistent with previous findings that suggest empathic coworkers are associated with less negative spillover from work to family (Gryzwacz & Marks, 1999).

The same pattern of enhanced fathering behaviors was not evidenced on days fathers with higher levels of Work Situation Control experienced a Mechanical or

Technical Breakdown. On those days, fathers were less likely to provide Emotional Support to their children. The multiple regression analyses bore this out as well. It appears that the combination of higher levels of control over the work situation, along with a high incidence of Work-Related Breakdowns, interfere in the quality of father-child interactions. No research to date has examined breakdowns in the workplace specifically, however, some researchers have examined the effect of work demands (Repetti, 1989) and have found evidence for emotional withdrawal from family interactions on days fathers experience a high level of work-related demands. In the present study, Mechanical and Technical Breakdowns had the lowest prevalence of any of the work-related stressors (3 percent as compared to 9 to 12 percent of work days). It may be perhaps, that Mechanical and Technical Breakdowns are more appropriately categorized under one of the other headings. The options include: Work Overloads, which incorporate demands and deadlines; Work Cutbacks, which relate to decreases in quantity or quality of work; or Work Tensions, which include arguments and tense interactions with coworkers. Having a equipment fail or a computer “crash” creates a kind of demand for fathers by requiring them to perform repairs, handle with the added workload, or deal with more demands on their time.

Stable Home Characteristics

The second research question also asked how family factors such as supportive spouse, spouse’s employment status and schedule, and the number of children in the household moderate the interface between fathers’ work experiences and fathering behaviors on a daily basis. Correlational analysis, OLS multiple regression analyses, and

HLM analyses all revealed associations between the Number of Children and fathers' home experiences. Extant research has established the number of children as one of the strongest and most consistent predictors of father involvement with their children (Marsiglio, 1991).

Findings from the present investigation are consistent with prior research findings. As the number of children in the family increase so too does the amount of time fathers spend with their children. Multiple regression analyses revealed that fathers with larger families increase their amount of Emotional Support and are prone to more Child-Related Stressors as the Number of Children in the household increases. This same result is borne out in the HLM analyses as well. The likelihood of Providing Children with Emotional Support or experiencing a Child-Related Stressor increases as the number of children increase. This result is primarily due to exposure such that, more children present more opportunities for fathers to be involved in their children's lives. Furthermore, Aldous et al. (1998) and Hoffman (1989) found that fathers are more likely to increase their involvement in the household when there are more children (Aldous et al., 1998; Hoffman, 1989).

The negative effects of work-stressors were expected to be moderated by the spouse's work schedule and employment status. Fathers, whose spouses work non-standard schedules (evenings and weekends), were expected to have decreased father-child interactions when experiencing a work-related stressor. While these fathers may have increased exposure to father-child interactions due to greater opportunities due to solo parenting (Perry-Jenkins, et al., 1999), they will not have the benefit of their partner

buffering the transition from work to home (Galambos & Walters, 1992). The present findings show that fathers, whose spouses work non-standard shifts, spend less time with their children on days they either experience a Work Cutback or work more hours, as compared to fathers whose spouses are either not employed or work a standard shift and have the same work experiences. One possible explanation for this finding is that fathers create their own buffer, so to speak, by reducing the amount of time they spend with their children and thus decrease their exposure to father-child interactions.

Limitations of Study

The present investigation examined the work-family interweave for fathers by analyzing the day-to-day connections of fathers' work and home experiences.

Generalizations of these conclusions should be considered in light of some limitations of the data. First, while respondents were randomly selected from a national sample, it is not a nationally representative sample due to the low participation rates of minorities, especially African American males. An analytic comparison was conducted of weighted versus unweighted variables revealing only minor differences. The unweighted sample was somewhat biased toward fathers who experience more interpersonal tensions than the general population. However, caution must be taken in interpreting findings and making generalizations.

A second limitation concerns the use of a "target child" to assess father-child interactions. While there are certainly advantages to isolating a particular child as part of an investigation of father-child interactions, there is also a risk of losing valuable information about the overall fathering experience. The present study admittedly uses

only the perspective of the father to ascertain information about what fathers do as they parent all their children and how these behaviors might be influenced by their daily work experiences. Furthermore, one can argue that by targeting a particular child, inferences about the father-child relationship are limited in that they can only be attributed to particular combinations of personality types.

Implications for Future Research and Organizational Policy/Intervention

Much of the empirical support for the work-family linkage has relied on cross-sectional studies (Baruch & Barnett, 1986; Crouter et al, 1989). More recent research, including the present investigation, extends this type of analysis by examining the specific processes involved in the daily work-family experience (Almeida & McDonald, 1998; Repetti, 1989, 1997). Measuring the day-to-day experiences of fathers' lives that connect the spheres of work and family opens a new avenue of inquiry. The daily design captures information about the dynamics of work and family that otherwise appear static in traditional cross-sectional designs. Furthermore, daily measurement helps resolve issues of retrospective recall and helps to rule out temporally stable personality and environmental variables as third variable explanations. To better understand the work-family phenomenon, the challenge of researchers is to place the processes of work and family experiences in the context of fathers' everyday lives; to continue to identify with greater precision the micro-mechanisms occurring between work and family settings; and to determine what broader characteristics differentiate the quality of fit between work and family that appear to exist to a greater extent for some fathers and to a lesser extent for others.

The implications of these findings for organizational policy and interventions are promising. The findings indicate that work environments do make a difference in men's parenting experiences. Work place characteristics such as supportive work environments, control over the work situation, and job discretion moderate the relationship between work experiences and fathering behaviors. Most importantly, these work characteristics have the greatest positive impact on routine days when no specific work-stressor occurs. Organizations that promote supportive work environments through supervisor and coworker training and progressive work policies such as flexibility of schedules and greater job autonomy, will know that their employees are better able to seamlessly weave the roles of father and employee.

Table 1

Demographic Comparisons

Demographic Variable	Breakdown	MIDUS % (n=3032)	NSDE % (n=1031)	Fathers % (n=290)
Age	Young Adults, 25-39	33.2	33.5	48.2
	Midlife Adults, 40-59	46.0	45.0	48.2
	Older Adults, 60-74	20.8	21.5	3.6
Gender	Males	48.5	45.5	100.0
	Females	51.5	54.5	
Education	12 Years or Less	39.2	37.7	33.3
	13 Years or More	60.8	62.3	66.7
Marital Status	Married	64.1	65.4	95.8
	All Others	35.9	34.6	4.2
Children in household	Yes	39.0	37.8	100.0
	No	61.0	62.2	
Race	Caucasian	84.1	86.3	88.9
	African American	10.8	9.7	8.6
	All Other Races	5.1	4.0	2.5

Table 2

Example of Aggregating Data Across Study Days

	Emotional Support	Child-Related Tension	Work Tension	Work Overload	Work Breakdown
Workday					
Day 1	1	0	0	1	0
Day 2	0	0	0	0	0
Day 3	1	1	0	1	0
Day 4	0	0	1	0	0
Day 5	0	1	0	1	0
# Days	2	2	1	3	0
% Days	40%	40%	20%	60%	00%

Table 3

Means, Standard Deviations, Range, and Intercorrelations for Daily Home Experiences, Daily Work Experiences, and Stable Work and Home Moderator Variables

	M	(SD)	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1. Time with Children	2.13	(1.78)	0	10	-															
2. Emotional Support	.09	(.18)	0	1	.25**	-														
3. Child-Related Stressors	.06	(.13)	0	1	.07	.18**	-													
4. Work Hours	8.82	(2.56)	.75	20	-.18**	-.10	-.08	-												
5. Work Cutbacks	.09	(.20)	0	1	.23**	.20**	.13*	-.10	-											
6. Work Tensions	.12	(.18)	0	1	.01	.07	-.06	.24**	.17**	-										
7. Work Overloads	.09	(.14)	0	.60	-.03	.16**	.11	.11	.09	.06	-									
8. Technical Breakdowns	.03	(.09)	0	.68	.04	.10	-.03	-.03	.12	.03	.01	-								
9. Father's Work Schedule	.84	(.37)	0	1	-.04	-.07	-.07	.11	-.16**	-.07	.04	.01	-							
10. Work Situation Control	7.42	(2.13)	0	10	.04	-.01	-.03	-.07	-.16**	-.08	-.02	-.15*	.10	-						
11. Job Discretion	3.67	(.57)	1.5	5	.08	.09	.00	.07	-.04	.05	.05	.04	.11*	.38**	-					
12. Supportive Work Environment	3.47	(.92)	0	5	-.05	.04	.02	-.01	-.01	.04	.07	.07	-.07	-.02	.03	-				
13. Spouse Work Schedule	1.96	(.68)	1	3	.03	.02	.04	-.07	.14*	.05	.04	.15*	-.07	-.07	-.07	-.03	-			
14. Supportive Spouse	3.64	(.55)	1	4	-.02	.00	.01	-.05	-.21**	-.14*	-.05	-.03	.11	.20**	-.02	.12	.05	-		
15. Number of Children	2.10	(.99)	1	5	.12*	.08	.15**	.06	.03	-.06	-.06	.11	.01	-.05	.02	-.08	.01	-.05	-	

N=290 *p<.05, **p<.01

Table 4
Between-Father Multiple Regression Analysis for Daily Work Experiences, Stable Work Characteristics, and their Interactions Predicting Fathers' Daily Home Experiences

Work Experience Variables	Time With Children			Home Experiences Child-Related Stressors			Providing Emotional Support		
	<u>B</u>	(<u>SE</u>)	<u>β</u>	<u>B</u>	(<u>SE</u>)	<u>β</u>	<u>B</u>	(<u>SE</u>)	<u>β</u>
Step I.									
Work Hours	-.11**	(.04)	-.17	-.00	(.00)	-.07	-.01	(.00)	-.11
Work Cutbacks	1.46**	(.53)	.17	.10*	(.04)	.15	.09	(.05)	.10
Work Tensions	-.41	(.62)	-.04	-.04	(.05)	-.06	-.02	(.06)	-.02
Work Overloads	-.20	(.70)	-.01	.09	(.05)	.10	.23**	(.07)	.19
Technical/Mechanical Breakdowns	.50	(1.08)	.03	-.06	(.08)	-.04	.18	(.12)	.09
R ²		.08**			.04*			.07**	
Step II									
Fathers' Work Sched.	-.07	(.29)	-.01	-.02	(.02)	-.05	-.01	(.03)	-.02
Work Situation Control	.01	(.05)	.01	-.02	(.00)	-.04	-.00	(.01)	-.04
Job Discretion	.32	(.19)	.11	.01	(.01)	.03	.03	(.02)	.11
Supportive Work Env.	-.07	(.11)	-.04	.01	(.01)	.04	.00	(.01)	.03
R ²		.09**			.05			.08**	
F ΔR ²		.85			1.27			1.27	
Step III.									
FWS X Work Hours	-.14	(.14)	-.32	.02	(.01)	-.32	.00	(.01)	.11
FWS X Cutbacks	-3.67*	(1.53)	-.36	-.24*	(.49)	-.32	-.18	(.15)	-.17
FWS X Tensions	.24	(2.09)	.02	.03	(.16)	.04	.09	(.21)	.08
FWS X Overloads	.73	(2.16)	.06	.03	(.17)	.03	-.21	(.22)	-.16
FWS X Breakdowns	2.10	(4.37)	.11	-.57	(.34)	-.38	.11	(.44)	.05
WSC X Work Hours	.04	(.02)	.62	.00	(.00)	.24	-.00	(.00)	-.03
WSC X Cutbacks	.35	(.28)	.26	-.01	(.02)	-.01	-.01	(.03)	-.10
WSC X Tensions	-.06	(.31)	-.04	.00	(.02)	.01	.03	(.03)	.21
WSC X Overloads	-.24	(.40)	-.16	.02	(.03)	.20	-.05	(.04)	-.33
WSC X Breakdowns	-.83	(.58)	-.30	.01	(.05)	.05	-.13*	(.06)	-.44
JD X Work Hours	-.05	(.09)	-.34	.00	(.01)	.33	-.01	(.01)	-.58
JD X Cutbacks	-.39	(1.14)	-.16	.13	(.09)	.71	.07	(.12)	.29
JD X Tensions	-1.00	(1.39)	-.37	-.07	(.11)	.04	-.14	(.14)	-.49
JD X Overloads	-.35	(1.56)	-.11	-.06	(.12)	-.24	.26	(.16)	.79
JD X Breakdowns	2.83	(3.03)	.58	.05	(.23)	.13	.28	(.31)	.56
SWK X Work Hours	-.11*	(.05)	-.77	-.01	(.00)	-.68	-.00	(.01)	-.00
SWK X Cutbacks	.29	(.91)	.11	-.10	(.07)	-.50	-.18*	(.09)	-.71
SWK X Tensions	.72	(.75)	.25	.03	(.06)	.12	.24**	(.08)	.83
SWK X Overloads	-.39	(.91)	-.12	.10	(.07)	.39	-.01	(.09)	-.05
SWK X Breakdowns	2.14	(2.10)	.43	-.10	(.16)	-.25	.07	(.21)	.13
R ²		.16*			.14			.20**	
F ΔR ²		1.13			1.27			1.84*	

N= 281 * p < .05 ** p < .01

Note: Status of (Twin or RDD) controlled for in analyses.

Note continued: Explanation of variable nomenclature.

Daily Home Experiences

Time with Children: quantity of father-child engagement

Child-Related Stressors: stressful events involving the father and child jointly

Providing Emotional Support: listening, giving advice, or comforting child

Daily Work Experiences

Work Hours: hours and minutes related to business or paid work

Work Cutbacks: cutting back on the quality or quantity of paid work

Work Tensions: interpersonal tensions at work

Work Overloads: too much to do, deadlines, demands at work

Tech/Mech Breakdowns: mechanical or technical malfunction or breakdown and mistakes

Stable Work Characteristics

Fathers Work Schedule (FWS): standard daytime shift = 1 and non-standard evening, night or weekends = 0

Work Situation Control (WSC): scale measuring amount of control over work environment (0=least; 10=most)

Job Discretion (JD): scale measuring amount of decision making latitude and autonomy in undertaking tasks at work (1=never; 5=all the time)

Supportive work Environment (SWK): scale measuring amount of helpfulness and empathy received from coworkers and supervisors (1=never; 5=all the time)

Stable Home Characteristics

Spouses' Work Situation (SWS): categorical variable indicating if wife is not employed (1), employed and works standard day shift (2), or is employed and works a non-standard evening or weekend schedule (3)

Supportive Spouse (SS): scale measuring degree to which spouse provides affectual support (1=not at all; 4=a lot)

Number of Children (NC): continuous variable representing the number of children under 21 years of age living in the household

Interaction Terms

FWS X Work Hours: Fathers' Work Schedule by Work Hours

FWS X Cutbacks: Fathers' Work Schedule by Work Cutbacks

FWS X Tensions: Fathers' Work Schedule by Work-Related Tensions

FWS X Overloads: Fathers' Work Schedule by Work Overloads

FWS X Breakdowns: Fathers' Work Schedule by Tech/Mech Breakdowns

WSC X Work Hours: Work Situation Control by Work Hours

WSC X Cutbacks: Work Situation Control by Work Cutbacks

WSC X Tensions: Work Situation Control by Work-Related Tensions

WSC X Overloads: Work Situation Control by Work Overloads

WSC X Breakdowns: Work Situation Control by Tech/Mech Breakdowns

Note continued:

JD X Work Hours: Job Discretion by Work Hours

JD X Cutbacks: Job Discretion by Work Cutbacks

JD X Tensions: Job Discretion by Work-Related Tensions

JD X Overloads: Job Discretion by Work Overloads

JD X Breakdowns: Job Discretion by Tech/Mech Breakdowns

SWK X Work Hours: Supportive Work Environment by Work Hours

SWK X Cutbacks: Supportive Work Environment by Work Cutbacks

SWK X Tensions: Supportive Work Environment by Work-Related Tensions

SWK X Overloads: Supportive Work Environment by Work Overloads

SWK X Breakdowns: Supportive Work Environment by Tech/Mech Breakdowns

SWS X Work Hours: Spouses' Work Situation by Work Hours

SWS X Cutbacks: Spouses' Work Situation by Work Cutbacks

SWS X Tensions: Spouses' Work Situation by Work-Related Tensions

SWS X Overloads: Spouses' Work Situation by Work Overloads

SWS X Breakdowns: Spouses' Work Situation by Tech/Mech Breakdowns

SS X Work Hours: Supportive Spouse by Work Hours

SS X Cutbacks: Supportive Spouse by Work Cutbacks

SS X Tensions: Supportive Spouse by Work-Related Tensions

SS X Overloads: Supportive Spouse by Work Overloads

SS X Breakdowns: Supportive Spouse by Tech/Mech Breakdowns

NC X Work Hours: Number of Children by Work Hours

NC X Cutbacks: Number of Children by Work Cutbacks

NC X Tensions: Number of Children by Work-Related Tensions

NC X Overloads: Number of Children by Work Overloads

NC X Breakdowns: Number of Children by Tech/Mech Breakdowns

Table 5

Between-Father Multiple Regression Analysis for Daily Work Experiences, Stable Home Characteristics, and their Interactions Predicting Fathers' Daily Home Experiences

	Time With Children			Home Experiences Child-Related Stressors			Providing Emotional Support		
	B	(SE)	β	B	(SE)	β	B	(SE)	β
Work Experience Variables									
Step I.									
Work Hours	-.12**	(.04)	-.17	-.00	(.00)	-.07	-.01	(.00)	-.11
Work Cutbacks	1.94**	(.53)	.22	.09*	(.04)	.14	.15**	(.06)	.16
Work Tensions	.21	(.61)	.21	-.05	(.05)	-.07	.06	(.06)	.06
Work Overloads	-.27	(.73)	-.02	.09	(.05)	.09	.22**	(.08)	.17
Technical/Mechanical Breakdowns	.30	(1.11)	.02	-.06	(.08)	-.04	.15	(.12)	.07
R ²		.10**			.04*			.09**	
Step II									
Spouses' Work Sched.	-.05	(.16)	-.02	-.00	(.02)	-.01	-.01	(.02)	-.05
Supportive Spouse	.03	(.19)	.01	.01	(.00)	.03	.02	(.02)	.04
Number of Children	.20	(.11)	.11	.02*	(.01)	.17	.02*	(.01)	.08
R ²		.11**			.07*			.10**	
F ΔR^2		1.57			2.00			4.25**	
Step III.									
SWS X Work Hours	.07	(.06)	.31	-.01	(.00)	-.32	.01	(.01)	.41
SWS X Cutbacks	1.28	(.97)	.34	-.00	(.07)	-.01	.14	(.10)	.35
SWS X Tensions	-.87	(.93)	-.19	.07	(.07)	.19	.02	(.09)	.04
SWS X Overloads	1.16	(1.21)	.20	-.10	(.09)	-.24	-.08	(.12)	-.14
SWS X Breakdowns	2.57	(1.57)	.34	-.06	(.12)	-.10	.40*	(.16)	.51
SS X Work Hours	.10	(.08)	.56	.00	(.01)	.25	.01	(.01)	.70
SS X Cutbacks	.04	(.86)	.02	-.05	(.07)	-.24	-.30**	(.09)	-1.09
SS X Tensions	-.67	(1.07)	-.23	.05	(.08)	.22	.18	(.11)	.60
SS X Overloads	-1.63	(1.26)	-.47	.08	(.10)	.32	.29*	(.13)	.81
SS X Breakdowns	1.62	(2.68)	.30	.01	(.20)	.02	-.11	(.27)	-.21
NC X Work Hours	-.07	(.05)	-.45	.00	(.00)	.35	.00	(.0)	.22
NC X Cutbacks	-.41	(.59)	-.11	-.03	(.05)	-.10	-.10	(.06)	-.25
NC X Tensions	-1.34*	(.63)	-.32	-.01	(.05)	-.04	-.13*	(.06)	-.29
NC X Overloads	-.12	(.80)	-.02	.09	(.06)	.21	.09	(.08)	.14
NC X Breakdowns	.08	(1.07)	.01	-.01	(.08)	-.03	-.09	(.11)	-.13
R ²		.17**			.10			.20**	
F ΔR^2		1.36			.59			2.21**	

Note: Status of (Twin or RDD) controlled for in analyses.

N= 283 *p < .05 **p < .01

Table 6

Within-Father Hierarchical Linear Model Analysis for Daily Work Experiences, Stable Work Characteristics, and their Interactions Predicting Fathers' Daily Home Experiences

Work Experience Variables	Time With Children		Home Experiences Child-Related Stressors		Providing Emotional Support		
	B	(SE)	β	OR	(LCI, UCI)	OR	(LCI, UCI)
Step I.							
Work Hours	-.18**	(.02)	-.26	.96	(.91, 1.01)	.97	(.92, 1.02)
Work Cutbacks	.18	(.22)	.02	1.96*	(1.08, 3.56)	2.51**	(1.51, 4.18)
Work Tensions	-.12	(.17)	-.01	.84	(.43, 1.64)	1.11	(.64, 1.92)
Work Overloads	-.23	(.19)	-.02	1.49	(.81, 2.73)	1.56	(.91, 2.69)
Technical/Mechanical Breakdowns	.19	(.29)	.10	1.43	(.56, 3.66)	1.91	(.88, 4.12)
Step II							
Fathers' Work Sched.	-.43	(.38)	-.09	.61	(.36, 1.03)	.82	(.50, 1.38)
Work Situation Control	.03	(.06)	.04	.96	(.87, 1.05)	.96	(.89, 1.05)
Job Discretion	.19	(.24)	.06	.96	(.67, 1.36)	1.29	(.93, 1.79)
Supportive Work Env.	.01	(.15)	.01	1.05	(.84, 1.31)	1.08	(.88, 1.31)
Step III.							
FWS X Work Hours	-.02	(.04)	-.03	1.04	(.91, 1.18)	1.06	(.94, 1.20)
FWS X Cutbacks	.03	(.52)	.00	.78	(.21, 2.94)	.54	(.16, 1.79)
FWS X Tensions	.35	(.53)	.02	2.39	(.27, 21.29)	1.30	(.25, 6.74)
FWS X Overloads	-.69	(.58)	-.04	1.30	(.24, 7.04)	1.36	(.26, 7.13)
FWS X Breakdowns	.92	(.81)	.04	.30	(.04, 2.39)	1.47	(.15, 14.81)
WSC X Work Hours	-.01	(.01)	-.11	1.01	(.98, 1.03)	1.02	(1.00, 1.04)
WSC X Cutbacks	.10	(.10)	.04	.98	(.76, 1.27)	1.05	(.83, 1.32)
WSC X Tensions	-.01	(.08)	-.00	1.07	(.77, 1.48)	1.51*	(1.05, 2.19)
WSC X Overloads	-.08	(.09)	-.03	1.16	(.85, 1.58)	.97	(.75, 1.25)
WSC X Breakdowns	-.37**	(.14)	-.09	.94	(.60, 1.46)	.68*	(.46, .99)
JD X Work Hours	-.16**	(.03)	-.51	1.08	(.99, 1.18)	.97	(.89, 1.06)
JD X Cutbacks	.09	(.41)	.01	.42	(.14, 1.24)	1.43	(.55, 3.79)
JD X Tensions	-.29	(.32)	-.03	1.17	(.32, 4.34)	3.29	(.94, 11.46)
JD X Overloads	-.66*	(.34)	-.06	1.42	(.46, 4.35)	.70	(.26, 1.86)
JD X Breakdowns	.39	(.67)	.02	.43	(.05, 3.37)	3.62	(.50, 26.14)
SWK X Work Hours	-.01	(.02)	-.05	.96	(.91, 1.02)	.99	(.94, 1.04)
SWK X Cutbacks	-.29	(.24)	-.04	1.51	(.65, 3.51)	.59	(.35, 1.01)
SWK X Tensions	.22	(.21)	.03	1.24	(.51, 3.00)	3.47**	(1.37, 8.83)
SWK X Overloads	.36	(.24)	.05	1.20	(.52, 2.74)	1.35	(.63, 2.89)
SWK X Breakdowns	-.83	(.52)	-.05	1.52	(.24, 9.57)	1.15	(.28, 4.76)

N= 1503 days *p < .05 **p < .01

Table 7

Within-Father Hierarchical Linear Model Analysis for Daily Work Experiences, Stable Home Characteristics, and their Interactions Predicting Fathers' Daily Home Experiences

Home Experience Variables	Time With Children		Home Experiences Child-Related Stressors		Providing Emotional Support		
	<u>B</u>	(<u>SE</u>)	<u>β</u>	<u>OR</u>	(<u>LCI</u> , <u>UCI</u>)	<u>OR</u>	(<u>LCI</u> , <u>UCI</u>)
Step I.							
Work Hours	-.18**	(.02)	-.26	.96	(.91, 1.01)	.97	(.92, 1.02)
Work Cutbacks	.18	(.22)	.02	1.96*	(1.08, 3.56)	2.51**	(1.51, 4.18)
Work Tensions	-.12	(.17)	-.01	.84	(.43, 1.64)	1.11	(.64, 1.92)
Work Overloads	-.23	(.19)	-.02	1.49	(.81, 2.73)	1.56	(.91, 2.69)
Technical/Mechanical Breakdowns	.19	(.29)	.10	1.43	(.56, 3.66)	1.91	(.88, 4.12)
Step II							
Spouses' Work Sched.	.10	(.20)	.04	1.11	(.83, 1.50)	1.13	(.86, 1.47)
Supportive Spouse	.07	(.22)	.02	.95	(.66, 1.37)	.98	(.70, 1.36)
Number of Children	.03	(.14)	.02	1.40**	(1.16, 1.68)	1.34**	(1.13, 1.59)
Step III.							
SWS X Work Hours	-.06*	(.02)	-.22	.98	(.91, 1.07)	1.05	(.98, 1.13)
SWS X Cutbacks	-.79*	(.32)	-.08	.63	(.25, 1.56)	.97	(.45, 2.11)
SWS X Tensions	-.03	(.24)	-.00	2.42	(.86, 6.77)	.90	(.41, 1.94)
SWS X Overloads	-.16	(.30)	-.02	.85	(.32, 2.24)	.84	(.35, 1.99)
SWS X Breakdowns	.21	(.39)	.02	.90	(.26, 3.13)	1.00	(.36, 2.81)
SS X Work Hours	.02	(.03)	.06	1.07	(.98, 1.17)	1.07	(.98, 1.16)
SS X Cutbacks	-.71	(.37)	-.08	.80	(.33, 1.96)	.59	(.28, 1.27)
SS X Tensions	.26	(.30)	.03	2.40	(.51, 11.26)	3.22	(.80, 12.93)
SS X Overloads	.35	(.34)	.03	1.06	(.34, 3.26)	1.03	(.39, 2.71)
SS X Breakdowns	-.11	(.60)	-.01	1.43	(.18, 11.50)	2.72	(.39, 18.98)
NC X Work Hours	-.03	(.02)	-.16	1.04	(.99, 1.09)	1.02	(.98, 1.07)
NC X Cutbacks	-.11	(.23)	-.02	.63	(.33, 1.18)	.60	(.35, 1.04)
NC X Tensions	-.21	(.19)	-.04	.73	(.36, 1.46)	.49*	(.26, .92)
NC X Overloads	-.02	(.21)	-.00	1.15	(.63, 2.10)	1.70	(.98, 2.95)
NC X Breakdowns	.44	(.29)	.05	1.43	(.64, 3.17)	.72	(.35, 1.50)

N= 1503 days *p < .05 **p < .01

Figure 1. Work-to-Home Transformation with Stable Work and Family Moderators

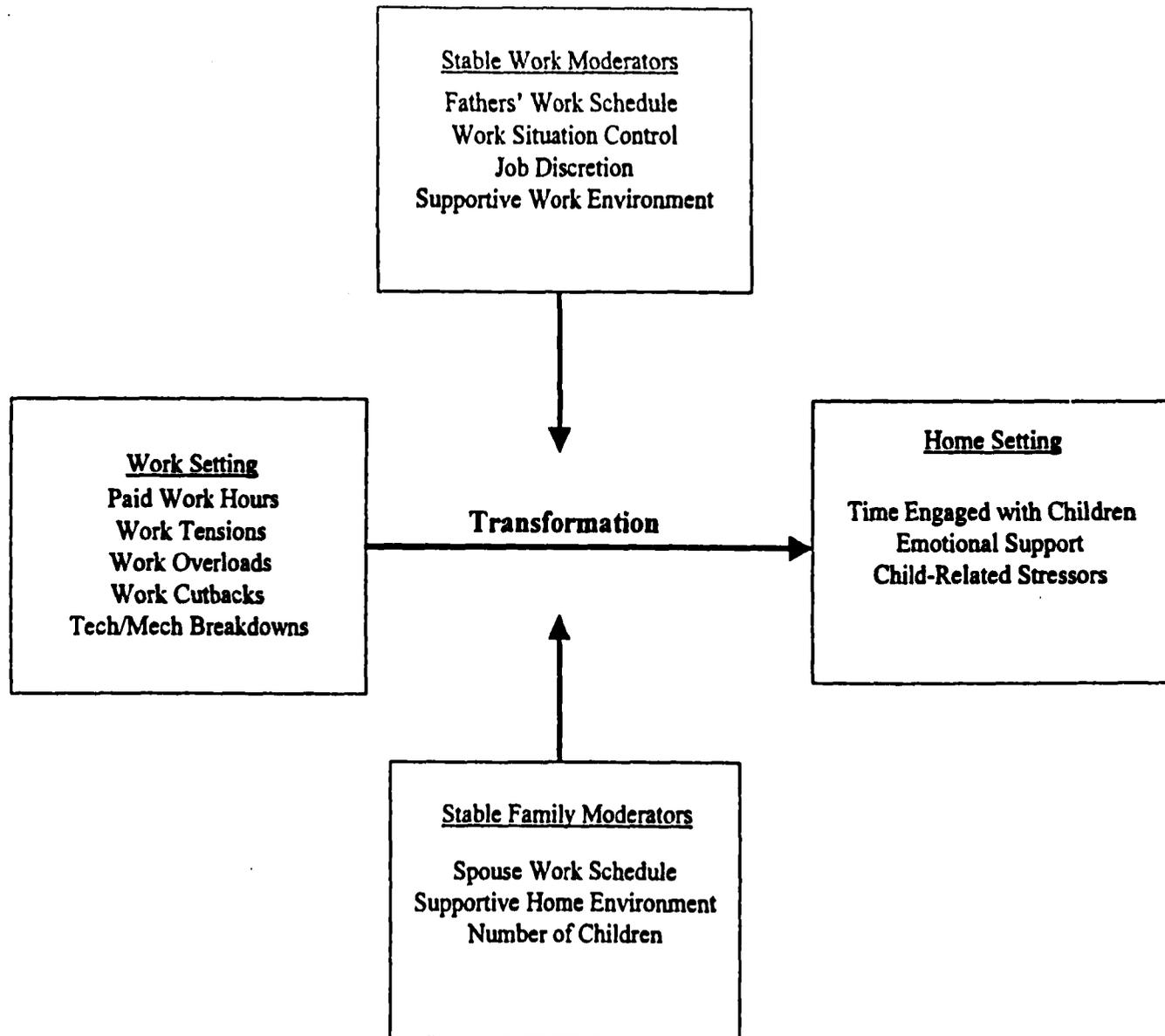


Figure 2. Work Hours X Supportive Work Environment Regressed on Time with Children

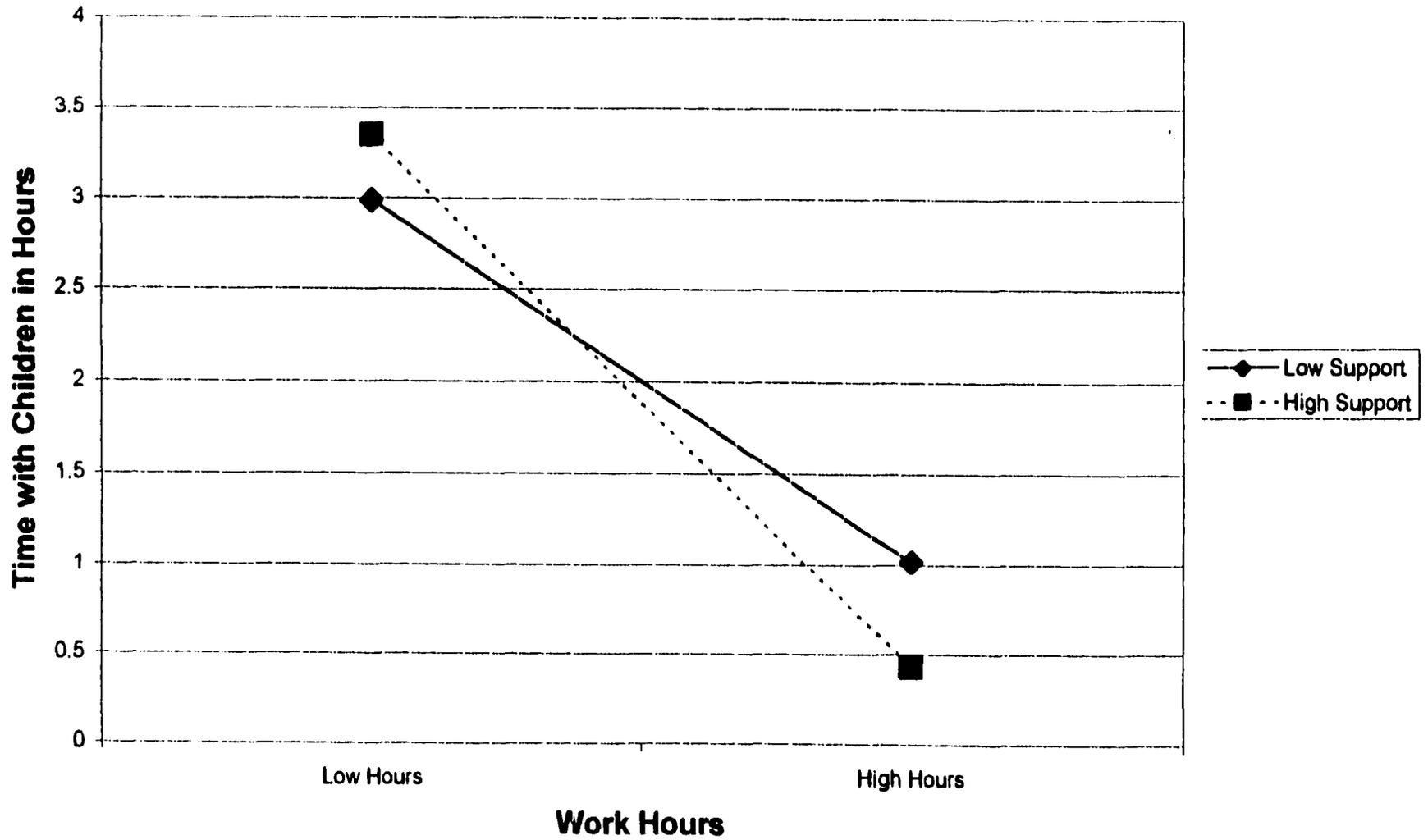


Figure 3. Work Schedule X Work Cutbacks Regressed on Child-Related Stressors

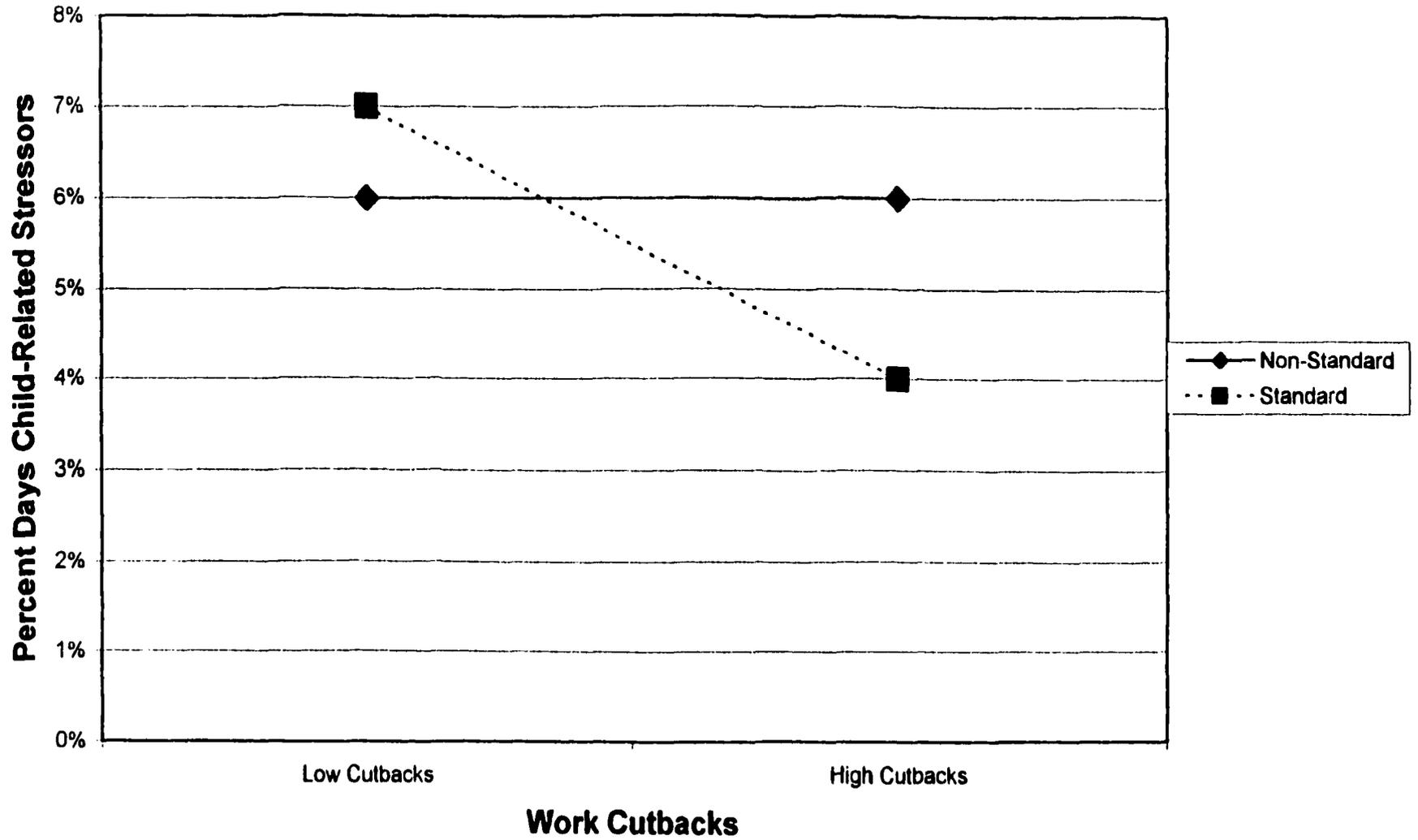


Figure 4. Work Situation Control X Work Breakdowns Regressed on Emotional Support

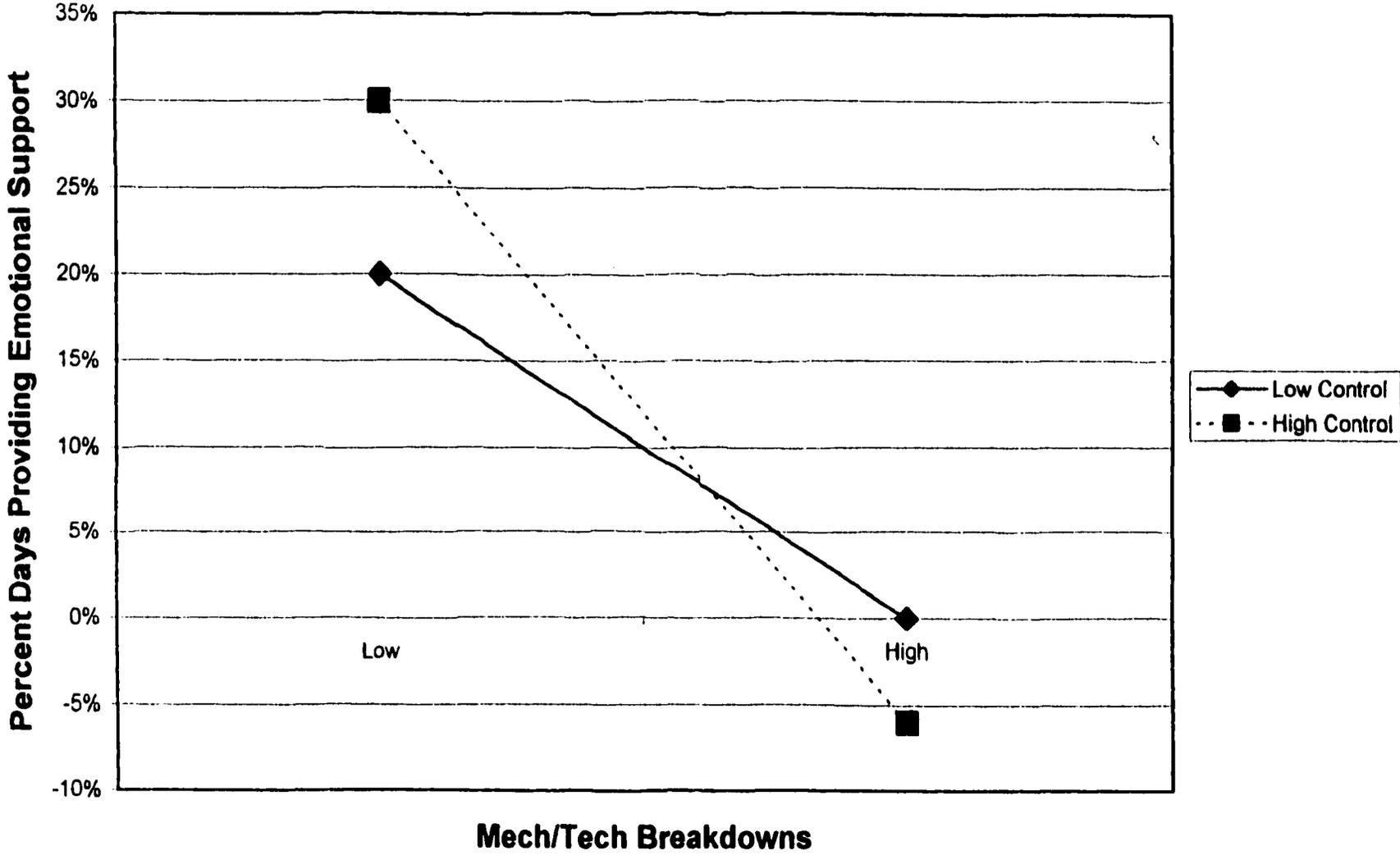
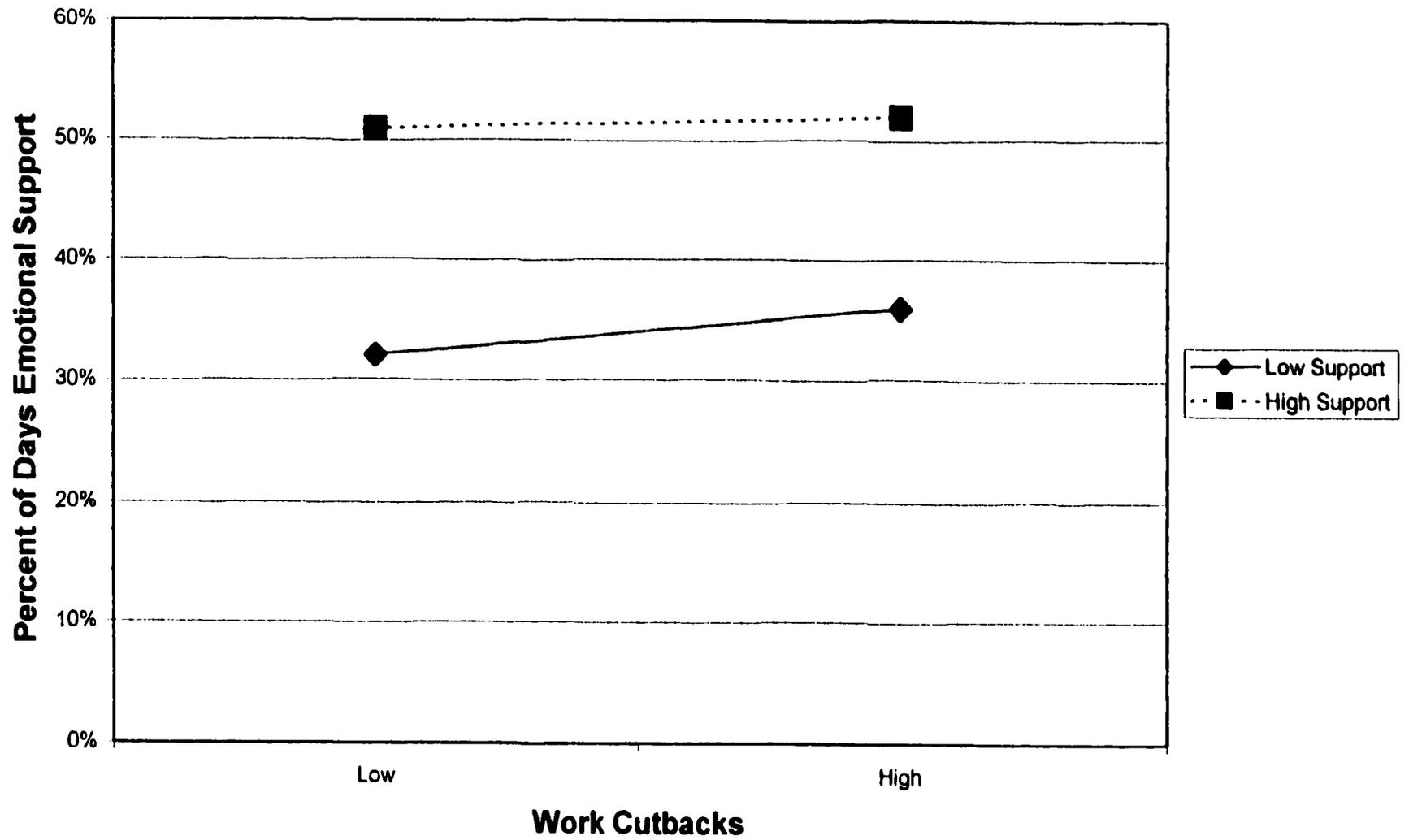


Figure 5. Supportive Work Environment X Work Cutbacks Regressed on Emotional Support



**Figure 6. Supportive Work Environment X Work-Related Tensiions
Regressed on Emotional Support**

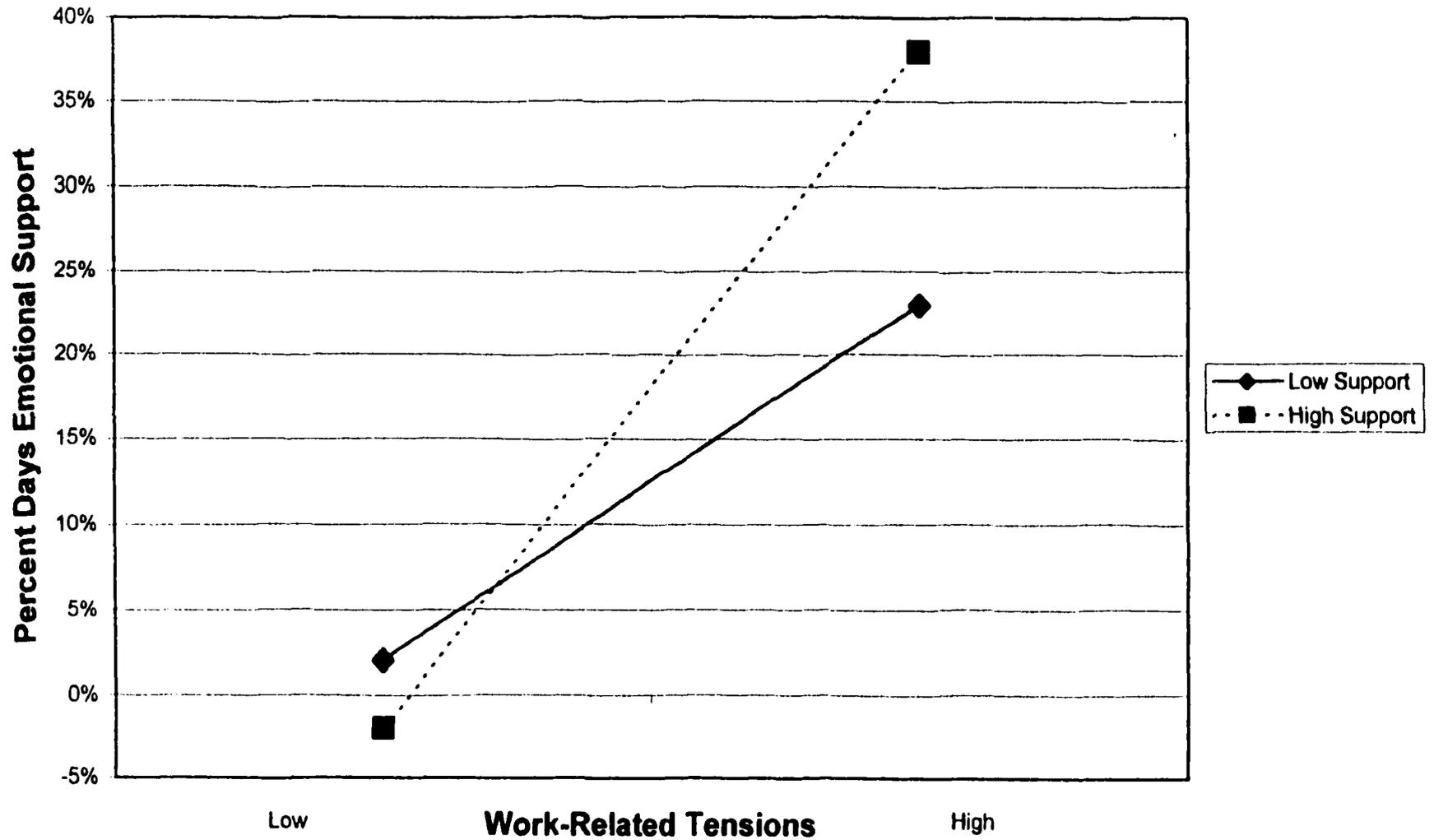


Figure 7. Number of Children X Work-Related Tensions Regressed on Time with Children

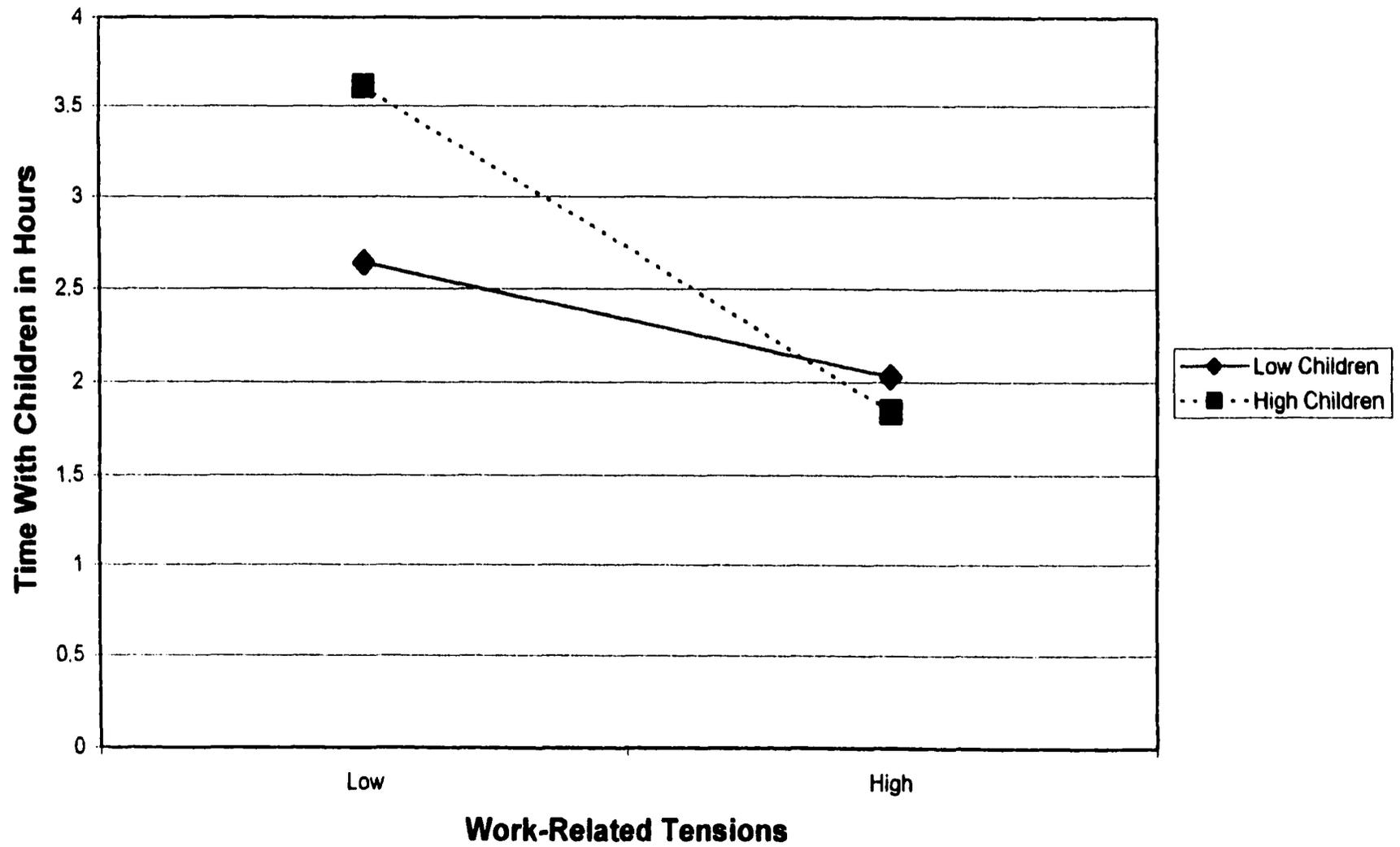


Figure 8. Spouse Schedule X Mech/Tech Breakdowns Regressed on Emotional Support

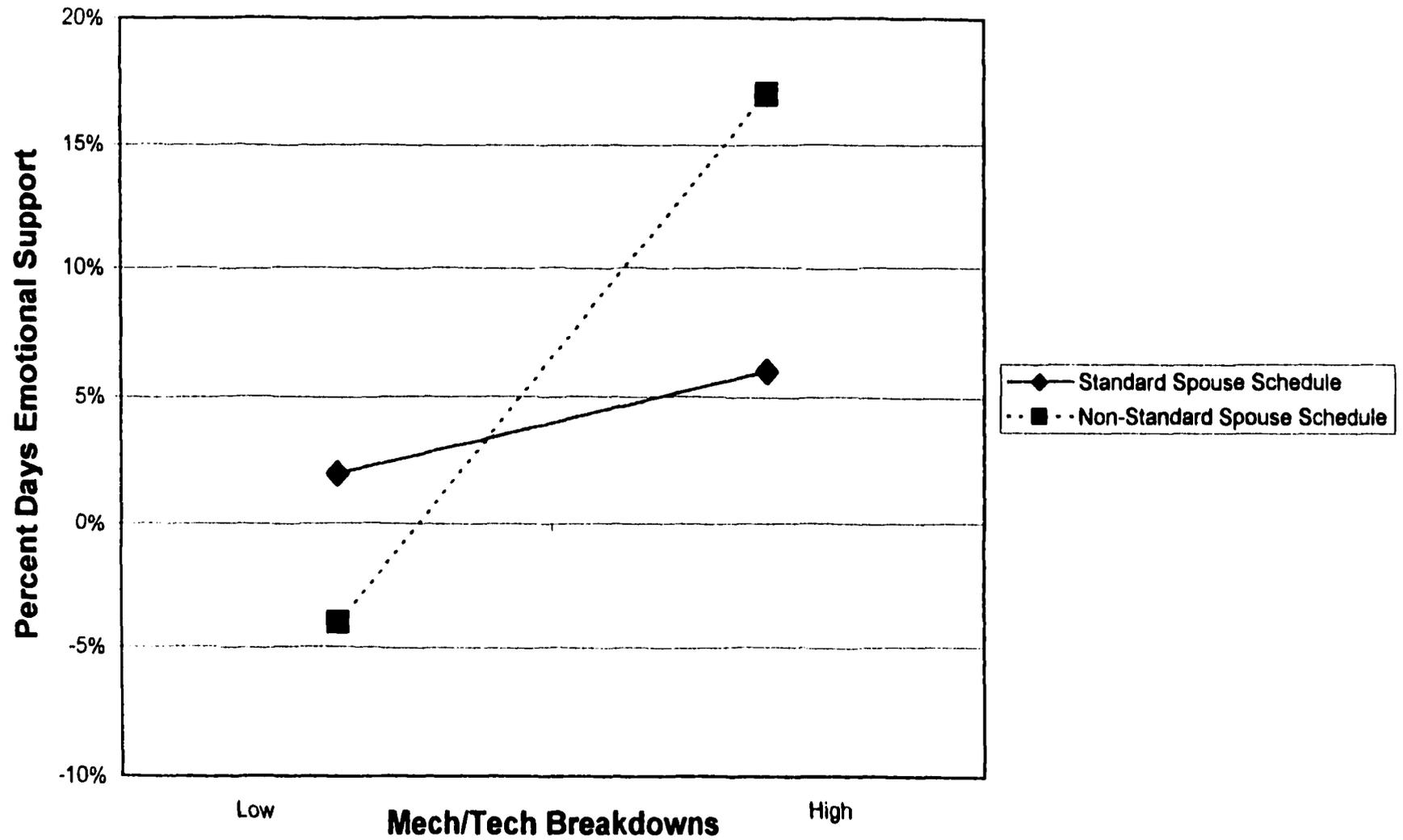


Figure 9. Supportive Spouse X Work Cutbacks Regressed on Emotional Support

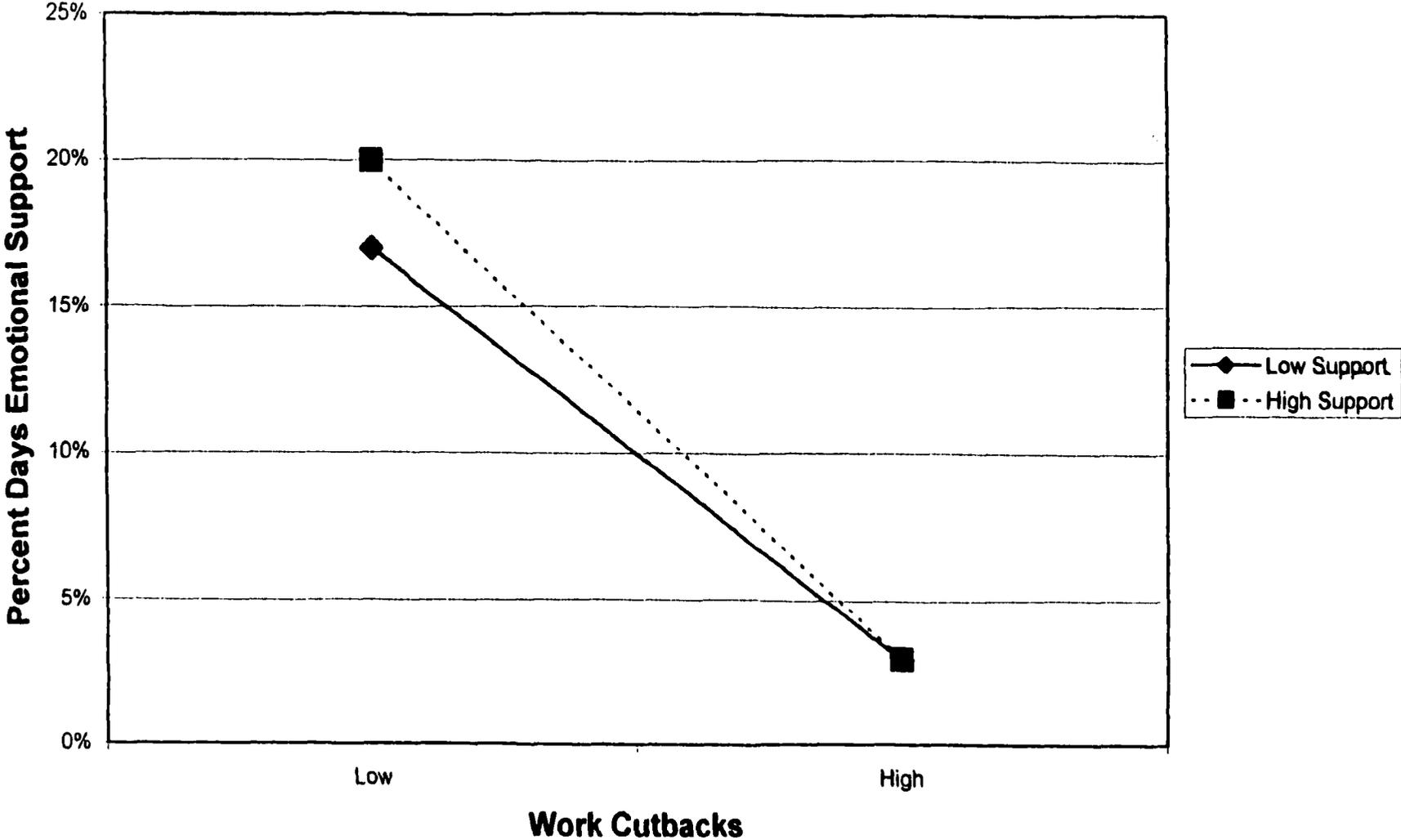


Figure 10. Supportive Spouse X Work Overloads Regressed on Emotional Support

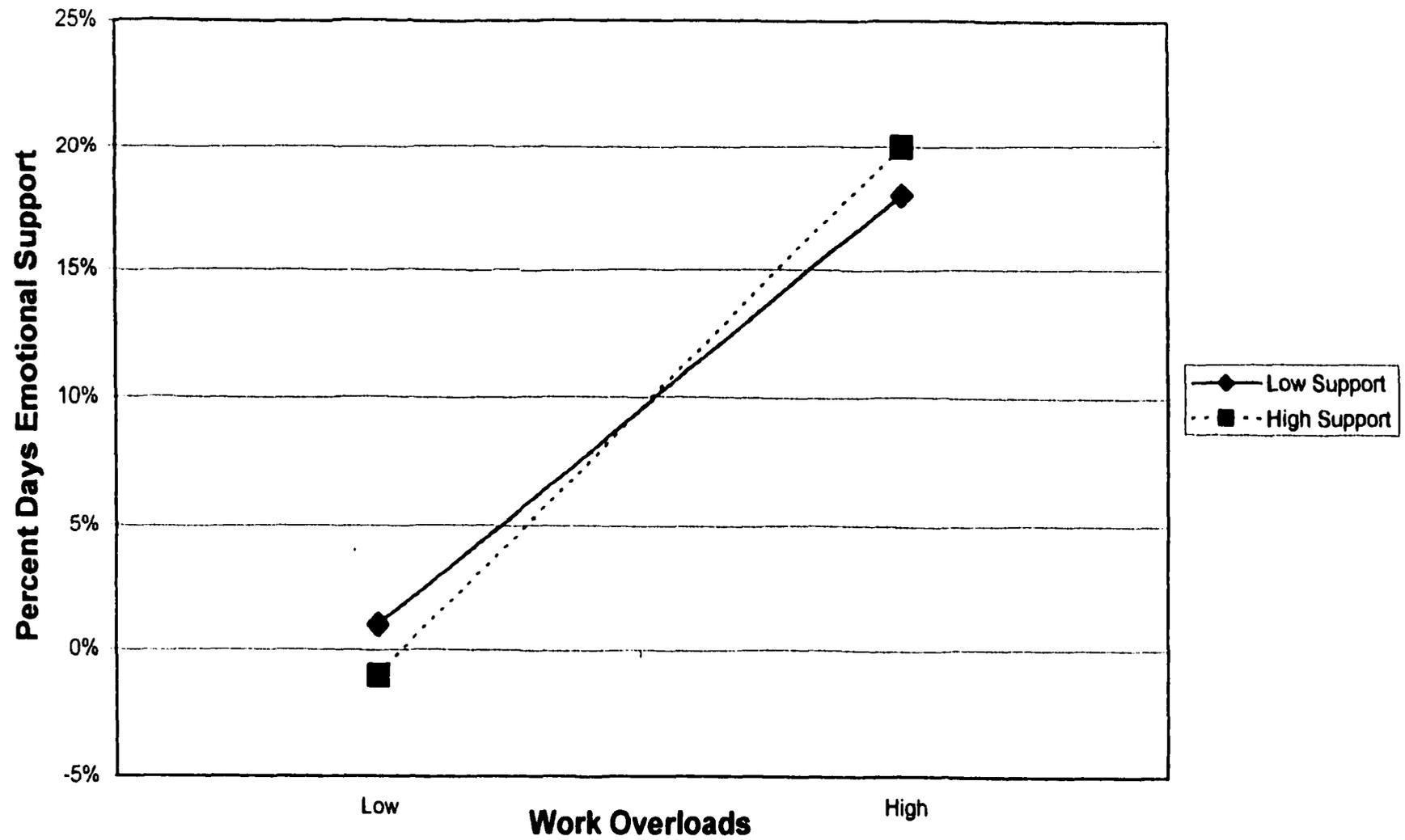


Figure 11. Number of Children X Work-Related Tensions Regressed on Emotional Support

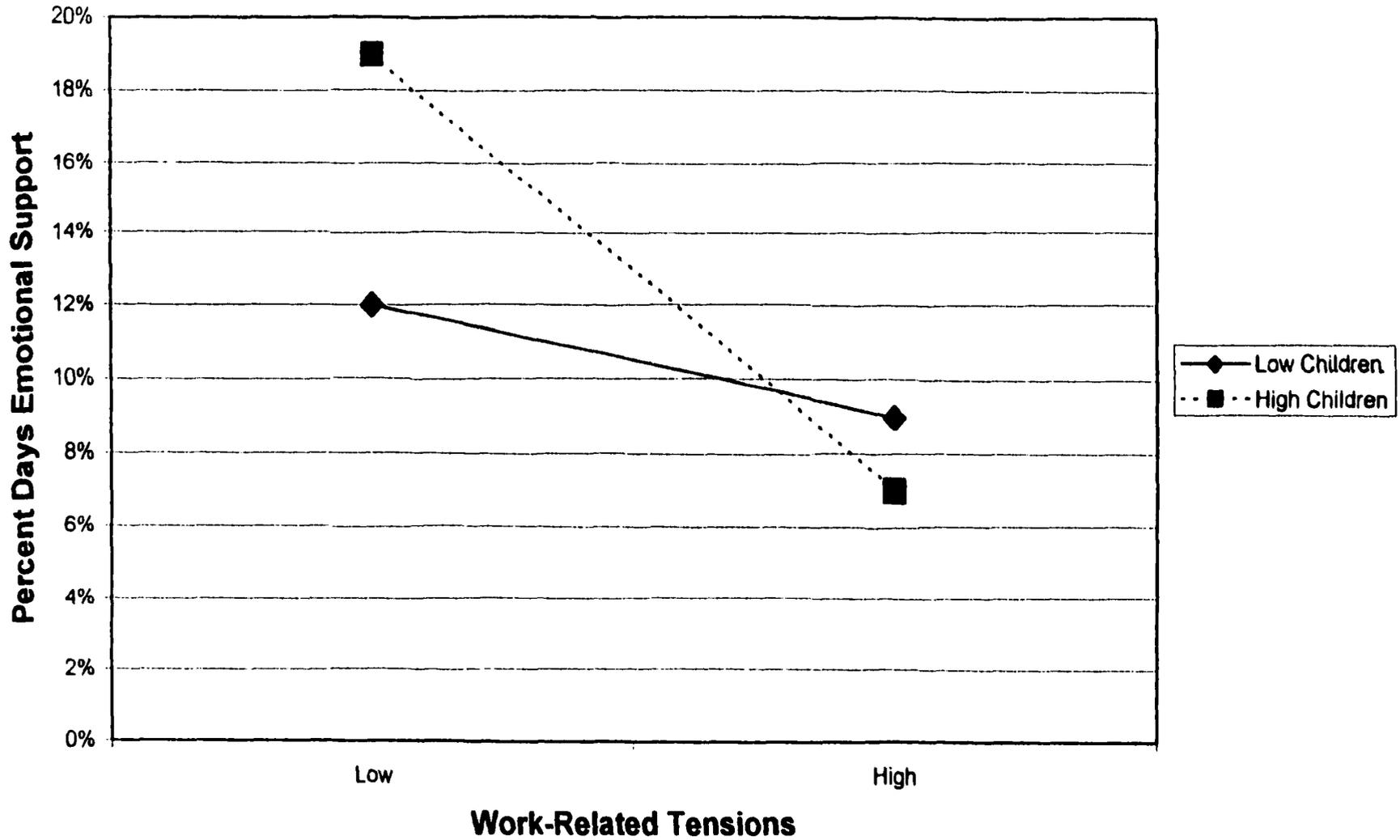


Figure 12. (HLM) Work Situation Control X Mech/Tech Breakdowns Regressed on Time with Children

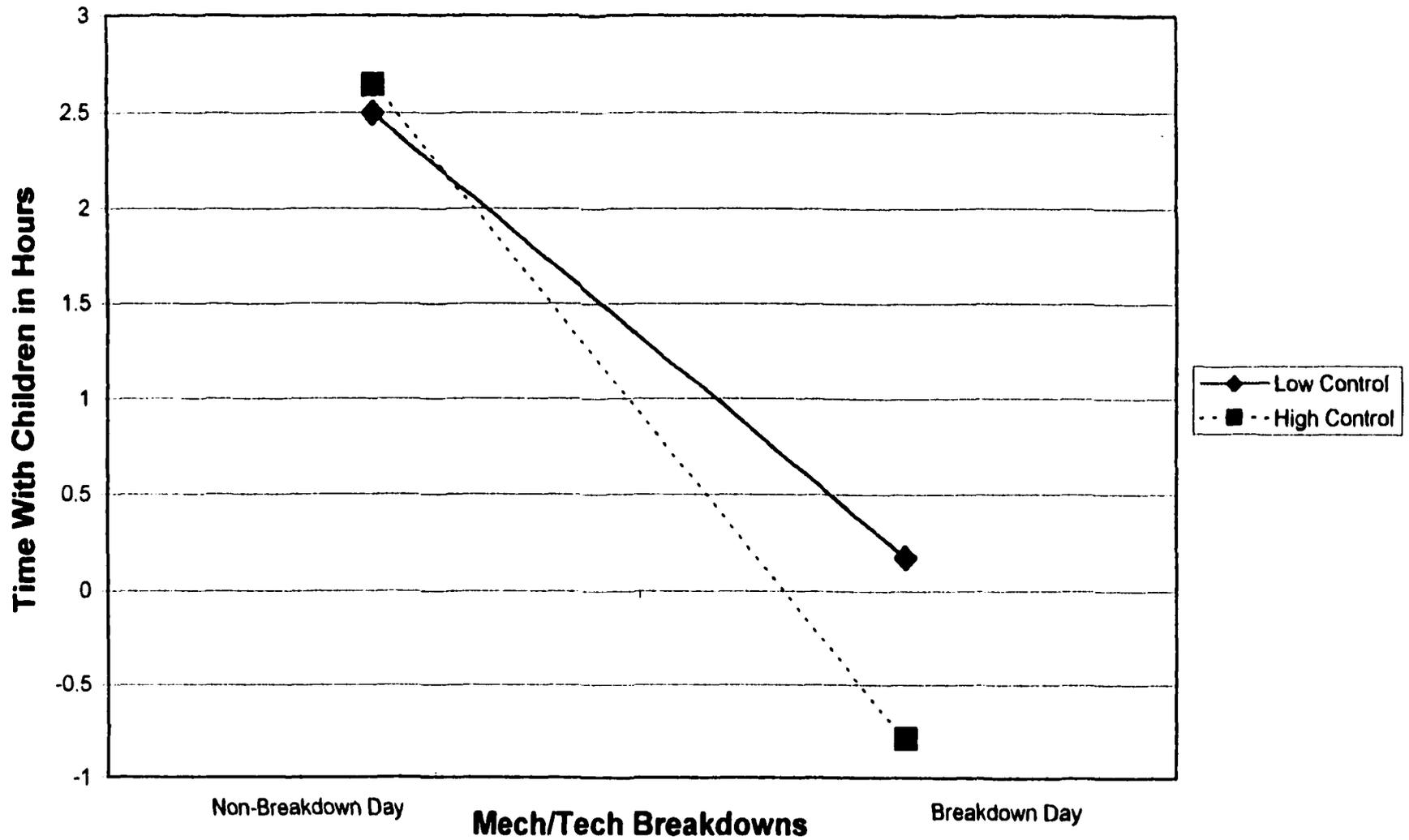


Figure 13. (HLM) Job Discretion X Work Hours Regressed on Time with Children

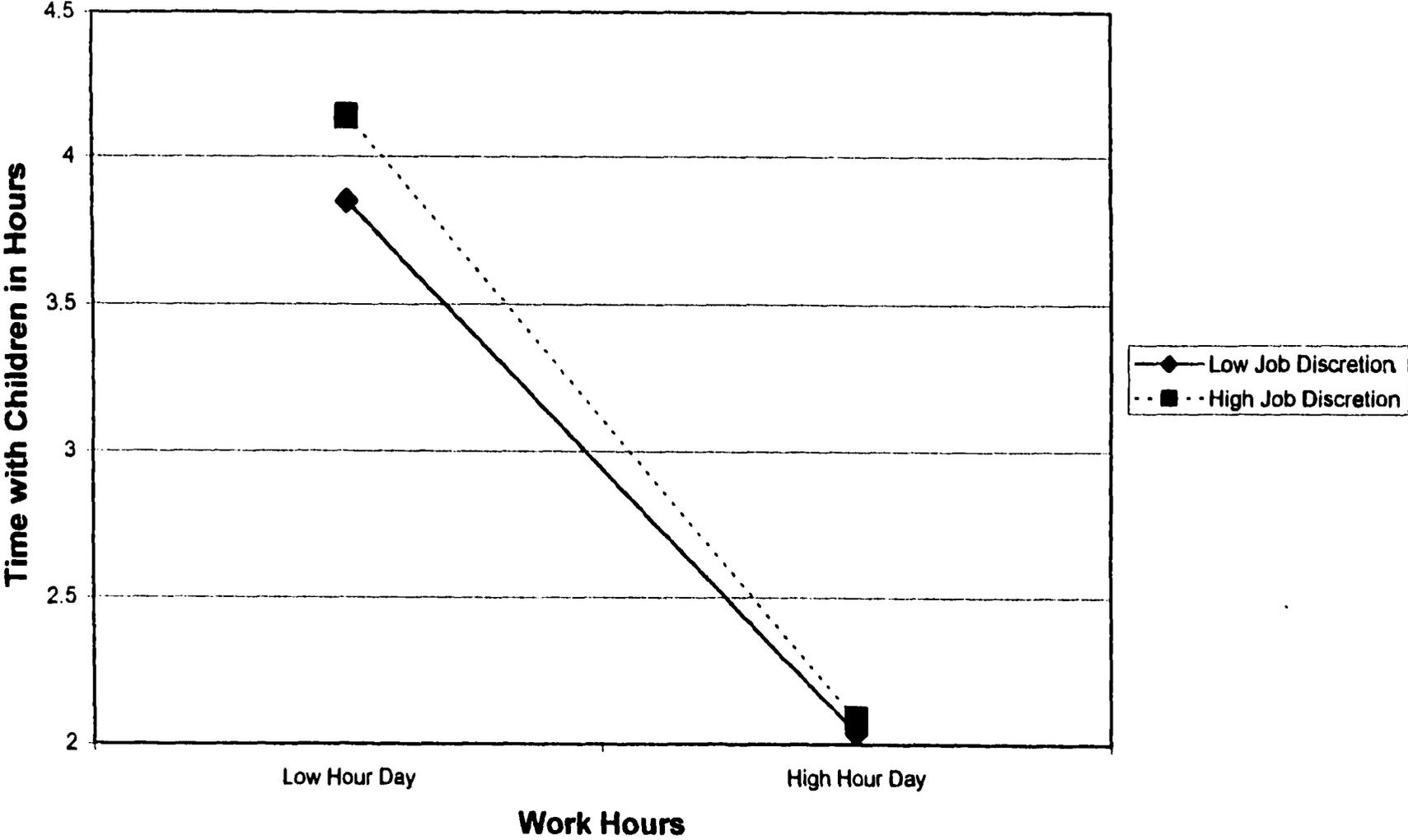
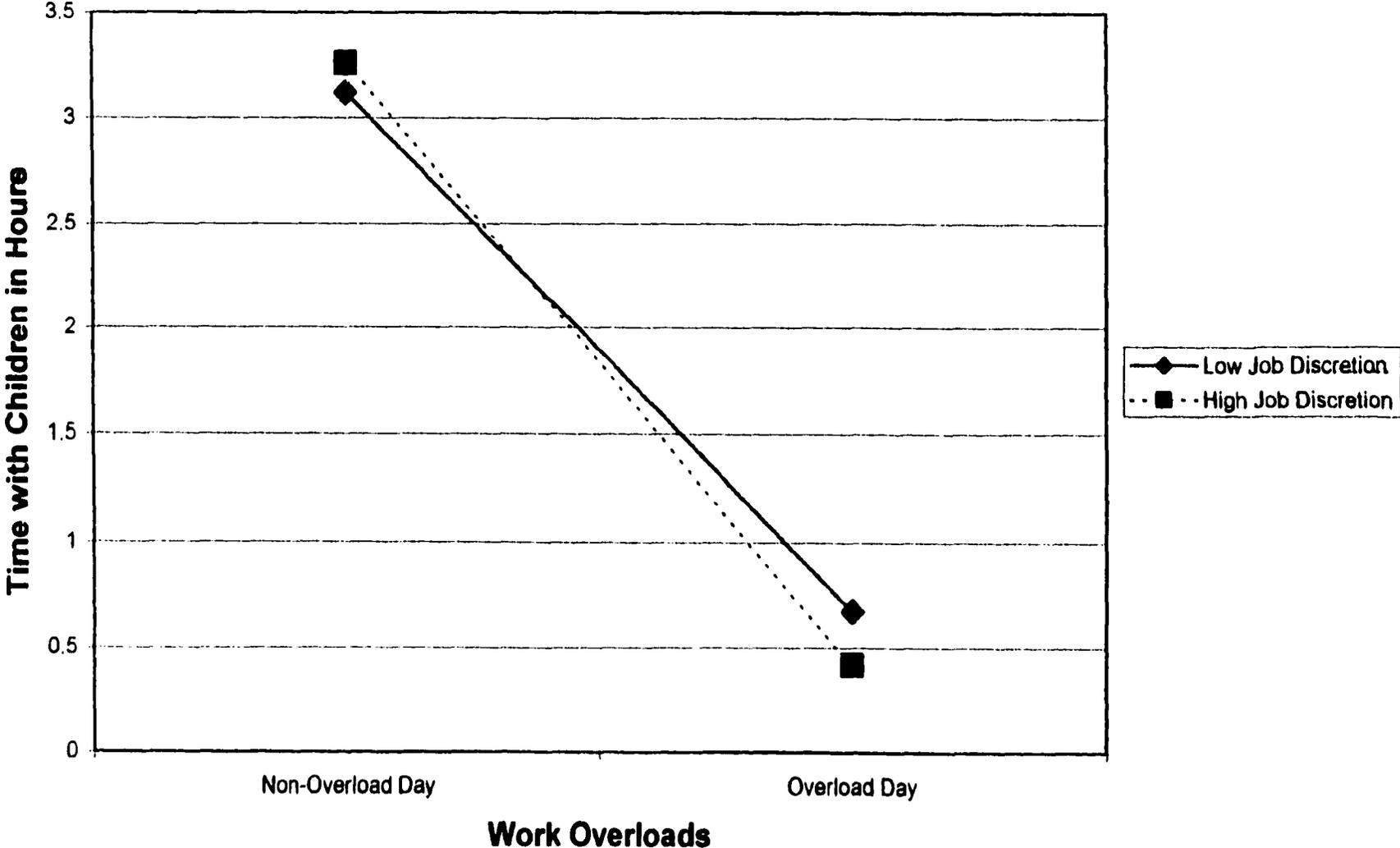


Figure 14. (HLM) Job Discretion X Overloads Regressed on Time with Children



**Figure 15. (HLM) Work Situation Control X Work-Related Tension
Regressed on Emotional Support**

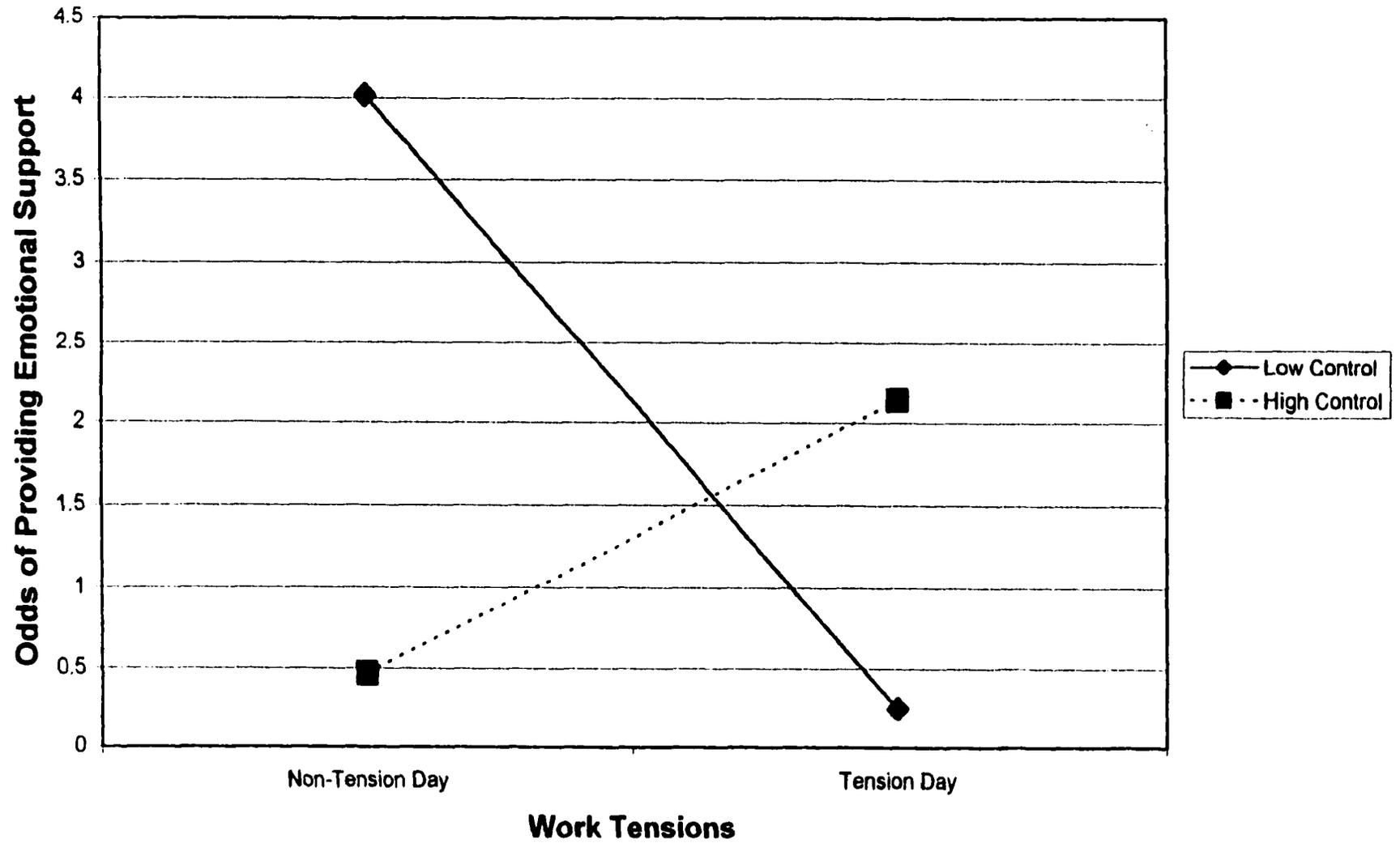


Figure 17. (HLM) Supportive Work Environment X Work-Related Tension Regressed on Emotional Support

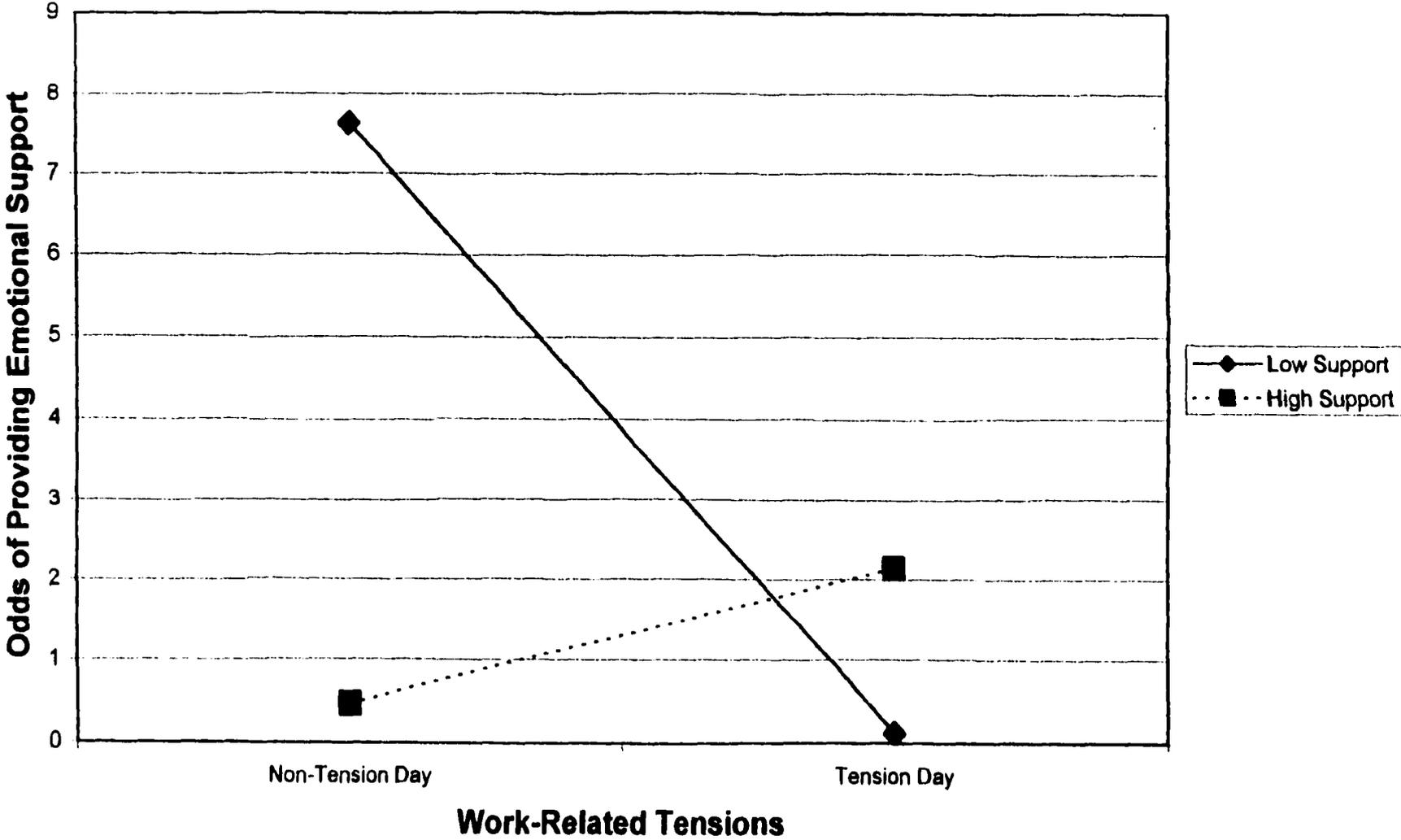


Figure 16. (HLM) Work Situation Control X Mech/Tech Breakdowns Regressed on Emotional Support

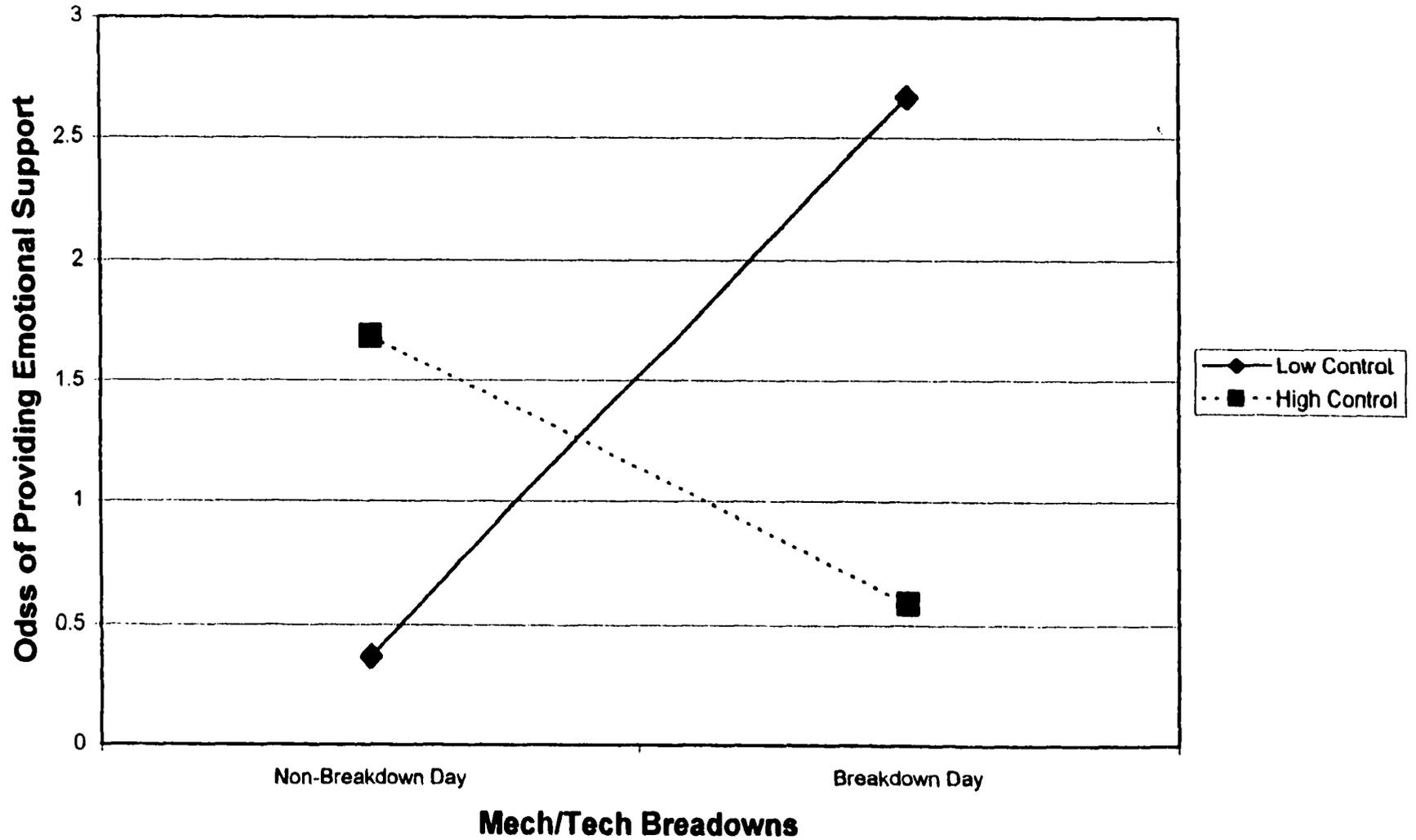


Figure 18. (HLM) Spouse Work Situation X Work Hours Regressed on Time with Children

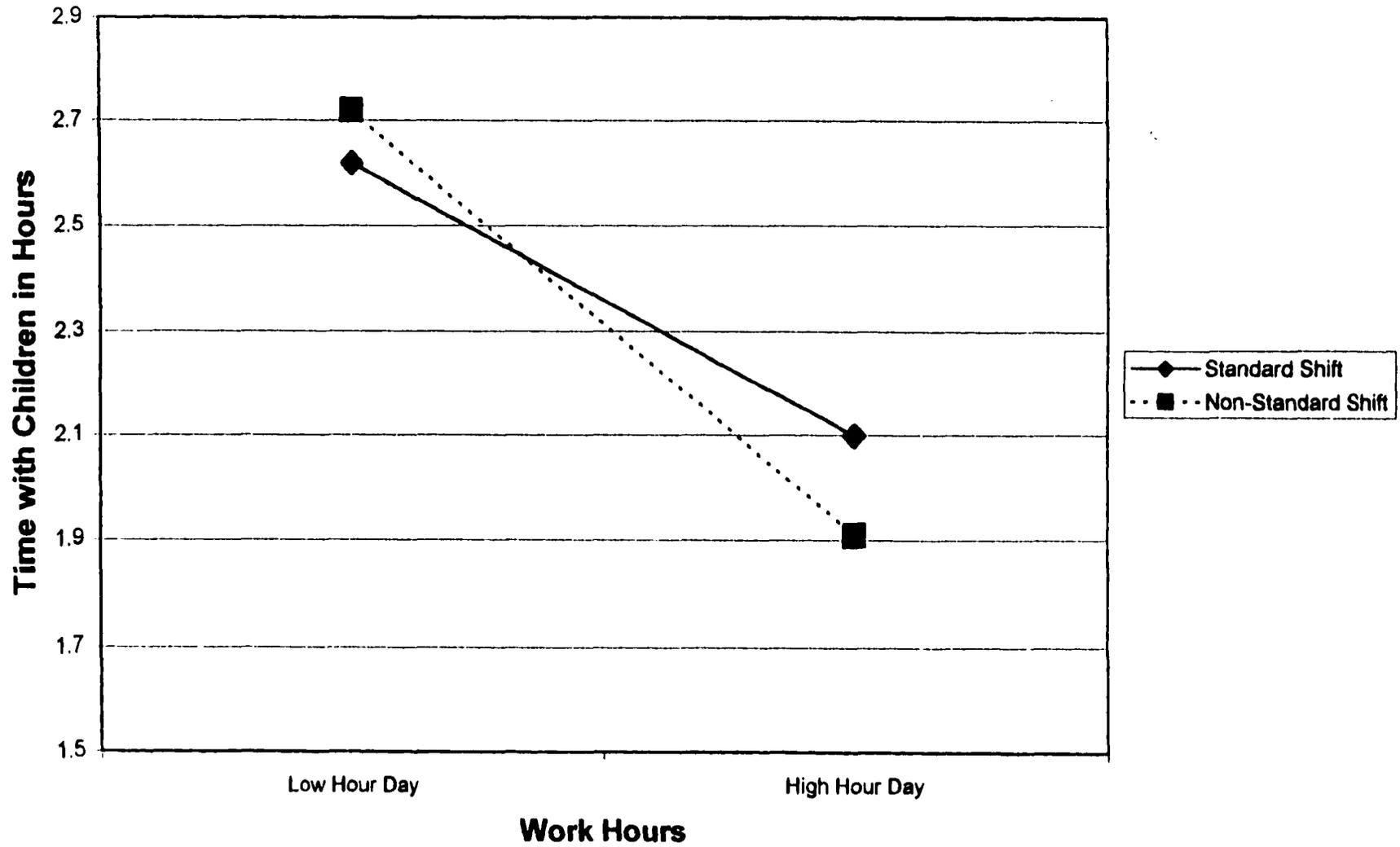
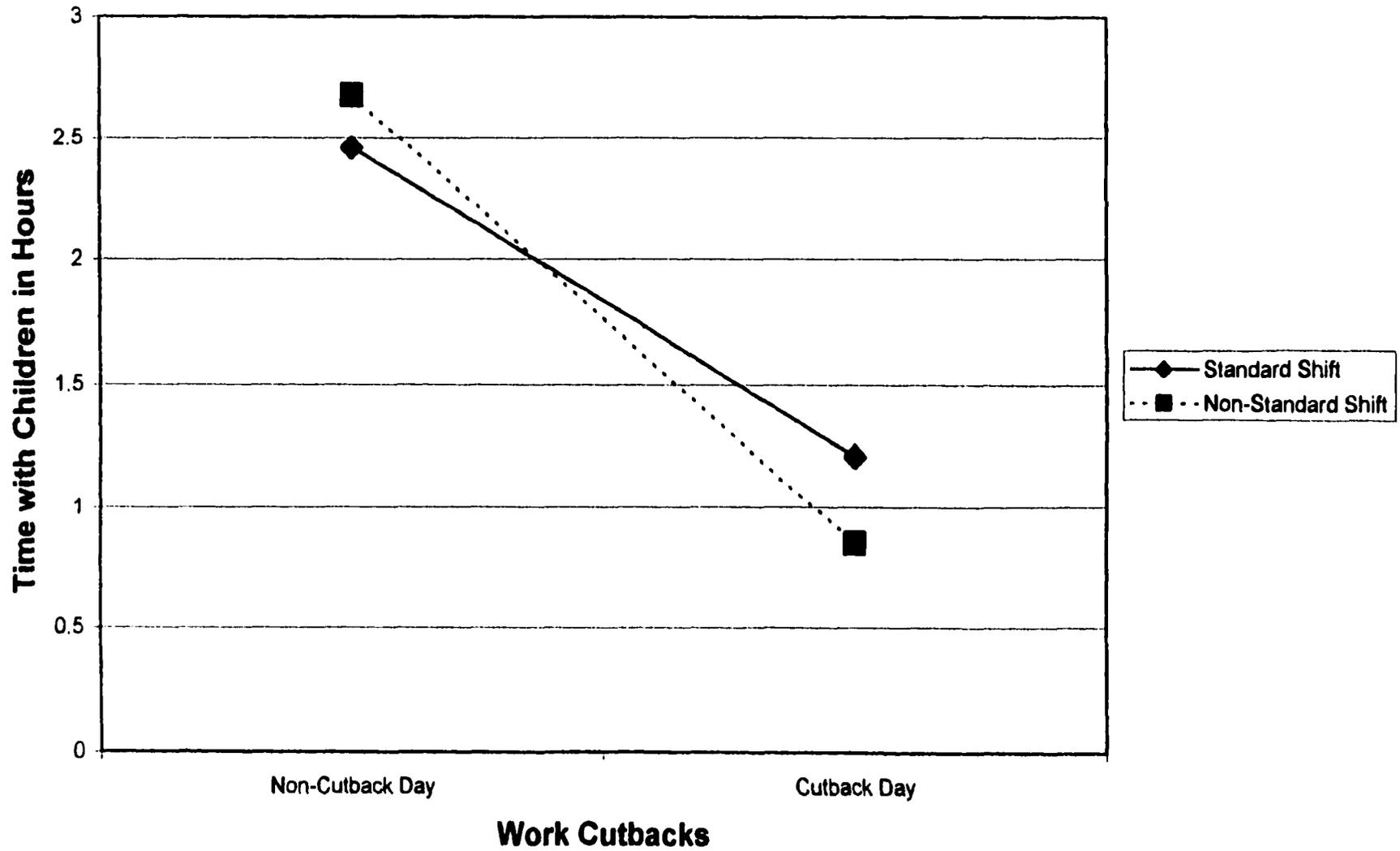
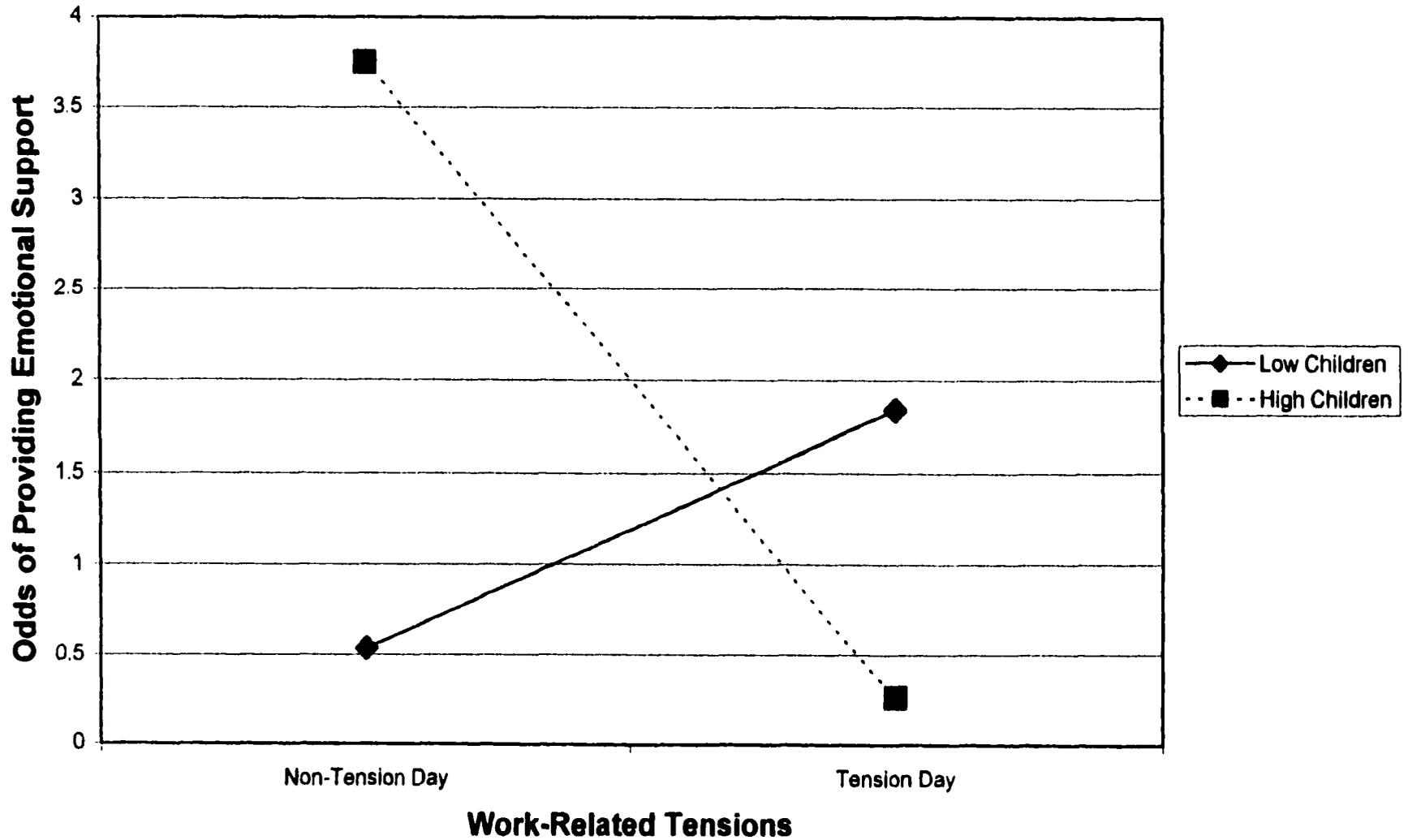


Figure 19. (HLM) Spouse Work Situation X Work Cutbacks Regressed on Time with Children



**Figure 20. (HLM) Number of Children X Work-Related Tensions
Regressed on Provision of Emotional Support**



APPENDICES
Appendix A

Instructions for Interviewer and attached brochure: (RDD sample)

(Make sure you are talking to an adult 18 years or older)

Hello, my name is _____. I am calling for Harvard Medical School in Boston. <Pause – Allow respondent to reply>

We're doing a national survey of health and lifestyle and it will just take a few minutes to see if your house might be eligible to participate.

Each eligible participant is offered (20 dollars/50 dollars) as a token of our appreciation for taking the time to help us.

(IWER if I/R is reluctant, suggest 'I'd like to send you a brochure that will describe this survey in detail and give you a chance to read more about the importance of your household's participation in our survey.' /We mailed a brochure to your household that describes this survey in detail.)

(IWER: If I/R asks for more money, clarify: 'Because we cannot get this information any other way except by speaking with a member of each household that's been randomly selected. The researchers have freed up as much money as possible so that we are now able to offer each eligible participant 50 dollars as a token of our appreciation for taking the time to help us.')

My computer picks a random person and I need to know How many men living in your household are 25 to 74 years old?

How many women living in your household are 25 to 74 years old?

<Use probability selection procedure to determine gender of target adult.

If two or three (men/women) within target gender, use random probability selection procedure to determine respondent (oldest/second oldest/youngest)

If four or more (men/women) within target gender use last birthday method to determine respondent

(My computer has selected the (oldest/second oldest/youngest) (man/woman) who is 25 to 74 years old. How old was (he/she) on (his/her) last birthday?)

(My computer has selected the (man/woman) that is 25 to 74 years old that celebrated a birthday most recently. How old was (he/she) on (his/her) last birthday?)

Let me tell you a bit more about the survey.

The survey asks about your health and about how things going on in your life affect your health. There are two parts. The first part is a phone interview that takes about 30 minutes. The second part is a questionnaire we mail to your house; it takes about an hour.

At the end of the study, we will send press releases to major papers. Scientific journal articles and a book will be written about the results. If you participate, we will send you a specifically prepared report about our findings.

I hope you will take part in the survey. It would really help us out. Let's get started – if we run short on time please let me know.

Appendix B

Recruitment Letter for National Study of Daily Experiences

Dear Ms. <LASTNAME>,

Last year you participated in the Harvard Survey of Health and Life Quality. We greatly appreciate your help in this important study. We are writing you now about participating in the new phase of the survey, the Harvard Daily Experiences Study which focuses on day-to-day stresses. This new phase will consist of eight short telephone interviews, each lasting about fifteen minutes. Interviewers from our research team at the Institute for Social Research at the University of Michigan will call you on consecutive days to ask about daily stresses and symptoms of stress-related health problems. The results will provide the first nationally representative data on the typical stresses that people have to deal with in their daily lives and the toll these stresses take on health and well-being.

Only 1200 people have been selected to be participants in the final phase of this study, 100 per month over a calendar year, and each of you has been specially selected to have a set of background characteristics that will allow us to combine your reports into an accurate portrait of the entire country. It is very important to the success of our effort that you participate if you can possibly do so.

A Daily Experiences Study interviewer from the Institute for Social Research will be calling you soon. If you have any questions prior to that time, please feel free to call our toll free number with the Institute for Social Research, 1-800-759-7947. This number serves several studies, so please mention the Daily Experiences Study, your full name, current telephone number and the best time for us to call in the evenings as part of any message you leave. If you have moved or changed your telephone number since the previous phase of the study, we would really appreciate a message with updated information.

Thanks very much in advance for helping us. We really appreciate it.

Sincerely,

Appendix C

DISE Stem Questions:

An affirmative response to the stem question prompts the interviewer to probe for a detailed description of the event including who was involved in the event.

- a.) Did you have an argument or disagreement with anyone since this time yesterday?
- b.) Since (this time/we spoke) yesterday, did anything happen that you could have argued about but you decided to let pass in order to avoid a disagreement?
- c.) Since (this time/we spoke) yesterday, did anything happen at work or school (other than what you've already mentioned, that most people would consider stressful?
- d.) Since (this time/we spoke) yesterday, did anything happen at home (other than what you've already mentioned), that most people would consider stressful?
- e.) Many people experience discrimination on the basis of such things as race, sex, or age. Did anything like this happen to you since (this time/we spoke) yesterday?
- f.) Since (this time/we spoke) yesterday, did anything happen to a close friend or relative (other than what you've already mentioned) that turned out to be stressful for you?
- g.) Did anything else happen to you since (this time/we spoke) yesterday that most people would consider stressful?

Examples of Probing Questions:

- a.) Think of the most stressful disagreement or argument you had since (this time/we spoke) yesterday. Who was that with?
- b.) Think of the most stressful incident of this sort. Who was the person you decided not to argue with?
- c.) What happened and why did you decide not to get into an argument?
- d.) Think of the most stressful incident of this sort. Who did it happen to?
- e.) What happened and what about it would most people consider stressful?
- f.) How does this affect your job?

Appendix D

Daily Hours With Children: “Since (this time/we spoke) yesterday, how much time did you spend taking care of or doing things with your children—such as helping with homework, playing with them, driving them around, or doing something else with them?”

Appendix E

Daily Emotional Support: “Not counting the work you might do as part of your job, did you spend any time giving emotional support to anyone, like listening to their problems, giving advice, or comforting them, since (this time/we spoke) yesterday? Who did you give emotional support to?”

Appendix F

Work Hours: “Since (this time/we spoke) yesterday, how much time did you spend on activities related to business, paid work, or school—including travel time and time spent looking for work?”

Appendix G

Work Cutbacks: “Did you cut back on your normal work activities today because of any problems with your physical health, your emotions, (use of alcohol or drugs) or some combination?” “Did the quality of your work or how carefully you worked suffer today because of any problems with either your physical health or your emotions, (use of alcohol or drugs) or some combination?”

Appendix H

Fathers' Paid Work Schedule: "Now think about your current job(s). In an average week, how often do you work during the day, in the evening, at night (including being away overnight for work-related travel), or on the weekend?"

In an average week, how often do you work...	4 or more times/ week	2 to 3 times/ week	Once a week	1 to 3 times/ month	Less than once a month or never
a. days—any time between 7:00am and 5:00pm?	1	2	3	4	5
b. evenings—any time between 7:30pm and 9:30pm?	1	2	3	4	5
c. nights—any time between 9:30pm and 4:30am, or overnight?	1	2	3	4	5
d. weekends—any time Saturday or Sunday? (working both days counts as twice a week)	1	2	3	4	5

Appendix I

Work Situation Control: “Using a scale where “0” means “no control at all” and 10 means “very much control,” how would you rate the amount of control you have over your work situation these days?”

Appendix J

Job Discretion:

- (a) How often do you have to work very intensively—that is, you are very busy trying to get things done?
- (b) How often do you learn new things at work?
- (c) How often does your work demand a high level of skill or expertise?
- (d) On your job, how often do you have to initiate things—such as coming up with your own ideas, or figuring out on your own what needs to be done?
- (e) How often do you have a choice in deciding how you do your tasks at work?
- (f) How often do you have a choice in deciding what tasks you do at work?
- (g) How often do you have a say in decisions about your work?
- (h) How often do you have a say in planning your work environment—that is, how your workplace is arranged or how things are organized?
- (i) How often does your job provide you with a variety of things that interest you?
- (j) How often do different people or groups at work demand things from you that you think are hard to combine?

Appendix K

Supportive Work Environment:

- (a) How often do you get help and support from your coworkers?
- (b) How often are your coworkers willing to listen to your work-related problems?
- (c) How often do you get the information you need from your supervisor or superiors?
- (d) How often do you get help and support from your immediate supervisor?
- (e) How often is your immediate supervisor willing to listen to your work-related problems?

Appendix L

Spouse Work Schedule:

(a) Is your spouse or partner currently working for pay, whether full-time or part-time?

(b) “In an average week, how often does your spouse or partner work during the day, in the evening, at night (including being away overnight for work-related travel), or on the weekend?”

In an average week, how often do she work...	4 or more times/ week	2 to 3 times/ week	Once a week	1 to 3 times/ month	Less than once a month or never
a. days—any time between 7:00am and 5:00pm?	1	2	3	4	5
b. evenings—any time between 7:30pm and 9:30pm?	1	2	3	4	5
c. nights—any time between 9:30pm and 4:30am, or overnight?	1	2	3	4	5
d. weekends—any time Saturday or Sunday? (working both days counts as twice a week)	1	2	3	4	5

Appendix M

Supportive Spouse:

- (a) How much does your spouse or partner really care about you?
- (b) How much does he or she understand the way you feel about things?
- (c) How much does he or she appreciate you?
- (d) How much can you rely on him or her for help if you have a serious problem?
- (e) How much can you open up to him or her if you need to talk about your worries?
- (f) How much can you relax and be yourself around him or her?

Appendix N

Number of Children:

- (a) The next questions are about your children. First, how many biological children do you have? Do not count step children, adopted children, or foster children.
- (b) (Starting with the oldest child) what year was he or she born?
- (c) How many other children do you have, including step children, adopted children, and any others you helped raise for at least five years?
- (d) (Starting with the oldest) what year was he or she born?

Appendix O
Human Subjects Approval

Human Subjects Committee



1622 E. Mabel St.
P.O. Box 245137
Tucson, Arizona 85724-5137
(520) 626-6721

28 April 1999

David M. Almeida, Ph.D.
David C. Rowe, Ph.D.
School of Family/Consumer Resources
Division of Family Studies
FCR Building
PO BOX 210033

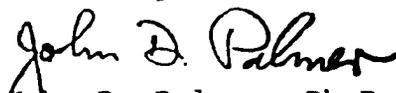
RE: EXAMINING THE DAILY INTERWEAVE OF FATHERS' WORK AND HOME EXPERIENCES

Dear Drs. Almeida and Rowe:

We received documents concerning your above cited project. This project involves the secondary analysis of existing data previously collected under your exempt project, "Personality and Daily Experiences during Adulthood" (subject identifiers removed). Therefore, regulations published by the U.S. Department of Health and Human Services [45 CFR Part 46.101(b) (4)] exempt this type of research from review by our Committee.

Thank you for informing us of your work. If you have any questions concerning the above, please contact this office.

Sincerely,



John D. Palmer, Ph.D., M.D.
Chairman
Human Subjects Committee

JDP/js
cc: Departmental/College Review Committee

REFERENCES

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