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**WORK AND FAMILY RELATIONSHIPS FOR FATHERS IN DIVERSE SAMPLES:  
AN ECOLOGICAL PERSPECTIVE**

A Dissertation in  
Human Development and Family Studies

by

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## ABSTRACT

Although considerable progress has been made toward a greater understanding of fathers as parents and individuals, less is known about the characteristics that shape the work and family experiences of fathers in diverse social, cultural, and geographic samples. Guided by an ecological perspective on the work-family interface, the current investigation sought to advance research on fathers and fathering by examining paternal work and family experiences in low-income and working-class rural families and working- and middle-class African American families. Further, person-oriented analytic techniques were incorporated to provide more nuanced explorations of fathers as parents and individuals. First, the implications of rural fathers' ( $n = 492$ ) experiences of work stress for father-infant parenting quality across multiple dimensions were examined. Latent profile analysis revealed five classes of fathers based on social-affective behaviors and linguistic stimulation and complexity. Multinomial logistic regression analyses revealed that multiple work stressors predicted membership in the fathering classes, although in several instances these associations differed depending on the number of hours fathers spent in the workplace. Second, levels and determinants of African American fathers' involvement in middle childhood and adolescence were examined ( $n = 270$  youth in 135 families). African American fathers spent approximately seven hours per week with youth and were involved in approximately 20 percent of all youth-reported activities, although considerable variability was observed. Further, multiple family characteristics, including fathers' worker role attitudes and child age and gender predicted paternal involvement with youth. Finally, associations between paternal individual and family characteristics and person-oriented profiles of family-to-work spillover were examined ( $n = 403$ ). Latent profile analysis revealed clear and meaningful spillover classes based on combinations of both positive and negative family-to-work

spillover. Further, multiple sources of family strain and support, as well as several characteristics of fathers themselves, were associated with patterns of spillover. Fathers' membership in spillover classes characterized, in part, by high negative family-to-work spillover, was associated with significantly higher paternal depressive symptoms. Collectively, these studies make several unique contributions to our understanding of the work-family interface for fathers in diverse samples and suggest the need for future research examining the development of these linkages over time.

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## Chapter 1

### General Introduction

Considerable progress has been made over the past 30 years toward a greater recognition and understanding of fathers as parents, employees, and individuals. Although fathers have frequently been judged over the past century by their ability to provide economically for their families (Amato, 1998), family and fatherhood research has increasingly recognized that fathers are often salient figures in the lives of their children. Studies have also shown that paternal involvement and parenting quality can uniquely contribute to children's development, above and beyond maternal contributions, for both children and adolescents across numerous cognitive, academic, and psychosocial outcomes (e.g., Amato, 1998; Marsiglio, Amato, Day, & Lamb, 2000). Further, while the majority of fatherhood research has focused on describing and understanding the nature, correlates, and consequences of fathering and father-child relationship quality, developmental researchers have also expanded our understanding of fathers beyond the parenting role, demonstrating that fathers' experiences within the family may shape their experiences in other social contexts (e.g., Bronfenbrenner, 1979).

The rapidly growing fatherhood literature suggests that father-child relationships and fathers' own well-being are multiply determined – paternal individual characteristics, as well as the social and cultural contexts in which fathers are embedded, may shape both the quantity and quality of their parenting, as well as their own quality of life (Parke, 2002; Pleck, 1997). Although fathers are no longer the “rather invisible group in the study of child development and family processes” (Coley, 2001, p. 743), gaps remain in our understanding of fathers as parents and as individuals. For example, although family scientists recognize the need to examine

fathering across a wide range of milieus (e.g., Parke et al., 2006), additional research is needed describing the levels and correlates of fathering among culturally, ethnically, and geographically diverse samples of fathers. Examinations of fathering to date have also been somewhat limited in their breadth and scope – more extensive conceptualizations of fathering are needed that consider holistic profiles of parenting quality across multiple dimensions, as well as investigations that consider paternal involvement from multiple perspectives (i.e., the father, the mother, and the child; Palkovitz, 2005). Additionally, although family scientists have long acknowledged the bidirectional associations between families and other social contexts (e.g., Bronfenbrenner, 1979), less is known about the ways in which individual and family characteristics may shape fathers' experiences outside the home, in contexts such as the workplace (e.g., Crouter, 1984). While no single study is capable of addressing all of the limitations that exist in the fatherhood literature, the current proposal seeks to expand our understanding of residential fathers in understudied samples by exploring the individual, family, and social characteristics that may predict fathering across multiple dimensions and perspectives, as well as the individual and family characteristics that may shape fathers' perceptions of the work-family interface.

#### *A Theoretical Perspective on Fathers and Fathering*

The variety of personal, family, and contextual determinants that shape fathers' behaviors and experiences, both as parents and as individuals, are best understood in the context of an ecological perspective (e.g., Bronfenbrenner, 1979). The ecological perspective suggests that individuals should be viewed within the larger family, social, and cultural contexts in which they are embedded, and further, that individuals influence and, in turn, are influenced by, reciprocal interactions within and across these contexts. Thus, for example, parenting can be shaped not only by fathers' own characteristics, such as their age and education level, but also by child

characteristics, such as gender or temperament, and relationship characteristics, such as marital support or conflict (Parke, 2002; Pleck, 1997). Further, development can be shaped by settings in which the individual is only indirectly connected (Bronfenbrenner referred to these settings as ‘exosystems’). Thus, children can be shaped not only directly by interactions with their fathers, but also indirectly, through the effects of fathers’ experiences in other contexts on parenting (e.g., Bronfenbrenner & Crouter, 1982). For example, experiences of stress in the work domain may result in decreased paternal well-being or heightened negative mood which, in turn, may negatively impact the quality of the father-child relationship (e.g., Repetti, 1994). Finally, beyond associations with parenting and the father-child relationship, individual and family characteristics may also inhibit or enhance fathers’ experiences outside the home (Bronfenbrenner & Crouter). For example, experiences of stress or support in the family domain may carry over into the work domain, impacting fathers’ job performance and well-being (e.g., Grzywacz & Marks, 2000).

#### *Father Involvement and Parenting Quality*

Although much attention has been paid to the often limited roles of nonresident fathers in the lives of their children, several recent reviews by Pleck (Pleck, 1997; Pleck & Masciadrelli, 2004) find that paternal involvement, on average, has increased over the past 30 years among residential fathers in the United States. While studies from the 1970s found that fathers’ relative time with children was approximately one-third that of mothers’ involvement, more recent estimates find that fathers’ relative time with children has increased to three-quarters that of mothers’ involvement (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001), although this proportional increase appears to reflect both increases in overall levels of paternal involvement, as well as decreases in overall levels of maternal involvement (Pleck & Masciadrelli). A wide

variety of factors have contributed to this proportional increase, including the dramatic increase in the number of mothers in the paid labor force over the past 30 years (U.S. Department of Labor, 2006) and the changing social norms regarding the roles that fathers should play in family life (e.g., Doherty, Kouneski, & Erikson, 1998). Despite these overall increases in involvement, however, research suggests that some residential fathers remain largely detached from the parenting role (e.g., Jain, Belsky, & Crnic, 1996). Additional research is needed to identify contexts and characteristics that may promote specific dimensions of paternal involvement that are associated with positive child development outcomes.

Beyond the amount of time fathers spend with children, understanding the personal and contextual factors that shape the *quality* of fathers' parenting has important implications for children, as fathering quality is associated with numerous child development outcomes throughout early childhood and adolescence. For example, paternal support is associated with better cognitive development in infancy (e.g., Nugent, 1991), as well as fewer behavior problems and better academic outcomes for children and for adolescents (e.g., Amato & Fowler, 2002; Amato & Rivera, 1999). Further, paternal social and emotional dimensions of parenting have been linked to increased social competence, higher cognitive and verbal performance, and fewer behavior problems in childhood (e.g., NICHD ECCRN, 2004; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004), as well as better academic outcomes and less delinquency in adolescence (Bronte-Tinkew, Moore, & Carrano, 2006; Collins & Laursen, 2004).

Overall, extant research underscores a variety of factors both proximal and distal to the family that may influence father-child relationships. Further research, however, is needed to better understand the ways in which parenting may be shaped in differing ecological milieus (Marsiglio et al., 2000). Although a growing number of studies suggest that considerable

variability exists in the roles men play in their children's lives, our understanding of parenting among fathers from diverse social and ethnic backgrounds is still incomplete and piecemeal (Parke, 2002). By developing a more thorough understanding of the correlates of fathering for culturally, ethnically, and geographically diverse samples of fathers, more effective and tailored intervention programs can be developed that may benefit both fathers and children, through the promotion of greater paternal involvement and higher quality father-child relationships.

#### *Family Influences on Fathers' Work Experiences*

Although many family researchers have focused on fathers as parents, a small but growing body of research has also examined fathers outside the parenting role by exploring the ways in which individual, family, and contextual characteristics shape fathers' experiences in the workplace. This work is grounded in the study of *spillover*, the process by which emotions and experiences in one social context may carry over into other social contexts (Staines, 1980). Collectively, this body of research suggests that paternal experiences of stress and support within the family can spill over into the workplace, shaping fathers' perceptions that family experiences positively or negatively impact their work performance, as well as their subsequent well-being (e.g., Grzywacz & Marks, 2000). For example, research suggests that paternal perceptions of negative spillover from family to work are associated with higher depressive symptoms, while perceptions of positive spillover are associated with lower depressive symptoms (e.g., Grzywacz, 2000; Grzywacz & Marks, 2005). It should be noted, however, that many of these studies rely on data from a single time point and, thus, it is possible that the direction of effect is reversed – that is, fathers with greater depressive symptoms may perceive their family as interfering more with their work responsibilities. Spillover from family to work may also have implications for fathers' role-related outcomes. Indeed, positive and negative family-to-work

spillover have been linked to fathers' job performance and job satisfaction (see Frone, 2003 for a summary of outcomes associated with family-to-work spillover).

While existing research suggests that experiences within the family may represent a meaningful determinant of paternal perceptions of work performance, to date family researchers have tended to analyze positive and negative family-to-work spillover as separate phenomena. Interestingly, Grzywacz and Marks (2000) and others have reported the seemingly counterintuitive finding that perceptions of positive and negative spillover are largely uncorrelated with one another. The orthogonal nature of the association between these variables suggests that fathers may exhibit any one of the four possible combinations of positive and negative family-to-work spillover (e.g., high-low, high-high etc.). Understanding how family life makes its mark on fathers' work lives may be greatly enhanced by examining the correlates of the patterning of positive and negative family-to-work spillover.

#### *Overall Limitations of Extant Fathering Research*

Our understanding of the roles and experiences of fathers in families has expanded considerably in recent decades. Researchers have increasingly recognized the wide variety of behaviors, both positive and negative, that characterize fathers as parents, and sought to identify key sources of motivation within fathers, families, and society that promote greater father involvement with children and higher quality father-child relationships. Family scientists have also expanded conceptualizations of fatherhood research to not only consider factors that shape paternal behavior within the family, but to also consider the ways in which families may shape fathers' experiences in other contexts (Parke, 2002). A number of topics, however, require further exploration. The current proposal seeks to advance our understanding of fathers by considering three substantial limitations in fatherhood research: 1) the need for further research

on the experiences of fathers in diverse samples, 2) the need for more comprehensive examinations of fathering, and 3) the potential value of holistic, person-oriented approaches for the study of fathers as parents and as individuals.

*Father parenting in diverse samples.* Despite the escalating focus on contextual and cultural characteristics that shape father involvement and parenting quality, there remains a significant need for additional research on the correlates of fathering in diverse samples of families. In particular, less is known about the characteristics that shape the experiences of rural and African American residential fathers (Dill, 2001; Roopnarine, 2004).

While considerable progress has been made in examining the ways in which work and family experiences may shape the quality of father-child relationships, the majority of studies to date have examined these associations in urban or suburban samples (e.g., Volling & Belsky, 1991). Less is known about the ways in which work and family experiences may shape parenting quality among fathers living in rural communities. Additionally, in examining father involvement among African American fathers, a heavy bias exists among family researchers toward studying the experiences of low-income, nonresident, and teenage fathers (e.g., Fagan, 1998; Jarrett, Roy, & Burton, 2002). Surprisingly little is known about father involvement for residential African American men. Examining the individual, family, and contextual characteristics associated with father involvement in these families would provide a more complete understanding of the factors that promote greater paternal commitment to children.

*More comprehensive examinations of fathering.* Although the ways in which fathering has been conceptualized and measured has expanded greatly in previous decades, a need exists for more detailed and thorough examinations of both fathers' involvement and parenting quality. With regard to involvement, family scientists focus most commonly on the absolute amount of



time fathers spend with their children overall, or in specific types of activities. A second conceptualization that has been quite common is to examine fathers' total time with children relative to mothers' total time with children (i.e., proportional involvement; see Pleck, 1997 for a review), a way of operationalizing the division of parenting between parents. As noted by Palkovitz (2005), however, "because involvement takes place in the context of relationships, the meaning of involvement can be quite different to different parties involved" (p. 126). Surprisingly, although current conceptualizations often consider involvement from the perspective of the father or the mother, little is known about paternal involvement from the perspective of the child. This would involve examining how the quantity of time children spend with their with father compares to the time children report with other significant figures in their lives. Such studies could advance our understanding of father-child relationships by determining the extent to which fathers are central figures in the lives of their children.

Further, examinations of father parenting quality, to date, have been quite insular, with scientists focusing on constructs of interest to their specific discipline. For example, psychologists often focus on the social and emotional dimensions of parenting when examining the father-child relationship (e.g., NICHD ECCRN, 2000), whereas language researchers focus on the linguistic stimulation parents provide their young offspring (e.g., Duursma, Pan, & Raikes, 2008). As a result, relatively little is known about the more comprehensive styles of parenting that may exist across multiple dimensions of the parent-child relationship.

Understanding a more complete range of behaviors that constitute fathering, as well as the individual, family, and social characteristics that are associated with parenting across different dimensions, could provide important insight into the overall quality of father-child relationships.

*Person-oriented approaches to fatherhood research.* As previously noted, extant research has greatly expanded our understanding of the experiences of fathers in families, as well as the importance of fathers for children's development. To date, however, family researchers have almost exclusively conducted fatherhood research using *variable-oriented* approaches, rather than *person-oriented* approaches. Variable-oriented approaches, such as regression, multilevel modeling (MLM), and structural equation modeling (SEM), model associations between levels of discrete variables (Bergman & Trost, 2006). While such approaches are useful in examining associations between constructs of interest, such as associations between *levels of* marital conflict and *levels of* fathers' sensitive parenting, these approaches are limited in several ways. As noted by Bergman and Magnusson (1997), perhaps the greatest limitation to this approach is that "the modeling/description of variables over individuals can be very difficult to translate into properties characterizing single individuals because the information provided by the statistical method is variable oriented, not individual oriented" (p. 292). Additionally, these approaches model the fictional "average man", that is, average trends across entire samples of individuals. If unique subgroups exist within a population, aggregate-level constructs may not accurately capture the experiences of these individuals (von Eye & Bogat, 2006).

Person-oriented approaches, in contrast, examine individuals holistically, by identifying subgroups of individuals who share similar profiles across multiple constructs of interest within a population. Such methods encompass a variety of approaches, including cluster analysis and latent variable mixture models (e.g., latent class analysis, latent profile analysis). Although both approaches attempt to group individuals into subclasses based on underlying similarities (e.g., similar mean scores across one or more items), a fundamental difference between these techniques is that cluster analysis is not a model-based approach. Thus, it is theoretically possible

to obtain as many clusters in a sample as there are individuals. Further, indices of model fit are not readily available in cluster analysis – the “optimal” number of classes is typically determined by comparing the results of multiple methods of clustering (e.g. hierarchical and k-means), or by dividing a sample in half and attempting to replicate a cluster solution with both halves of the sample (e.g., Rand, 1971). Latent variable mixture models, in contrast, are model-based approaches, and thus have multiple model fit indices available to evaluate the “optimal” number of latent classes (e.g., Muthén, 2001). While model-based approaches can suffer from problems of under-identification in cases where too many parameters are estimated (due to insufficient degrees of freedom; Lanza, Flaherty, & Collins, 2003), as noted by von Eye and Bogat (2006), the actual number of underlying subgroups in a population is likely to be finite and small. Thus, a mixture model approach may be preferable, due to the availability of model fit indices, in cases where the sample size is large enough to allow for the estimation of such models.

With regard to fathers in families, latent variable mixture model approaches, such as latent profile analysis, have the potential to not only identify fathers who share similar experiences or parenting characteristics, but to also identify the individual, family, and contextual characteristics that are associated with fathers’ probability of membership in these subgroups. Further, such approaches may have important implications for informing policy and programs. As noted by Newcombe (2003), it is difficult to draw valid conclusions regarding policy recommendations that are based on average effects; person-oriented approaches to fatherhood research may allow for the development of more effective policy programs that target “at-risk” subgroups of fathers who share similar circumstances or characteristics.

### *Research Aims*

Guided by an ecological perspective on family functioning and individual development (e.g., Bronfenbrenner, 1979), as well as previous research demonstrating the need for further research on diverse groups of fathers and person-oriented approaches to fatherhood research, the current study incorporated different samples and multiple analytic techniques to examine the following three aims:

*Aim 1: To examine associations between paternal work stress and multidimensional profiles of father-infant parenting quality among low-income and working-class rural fathers.*

Little is known about associations between workplace experiences and paternal parenting quality for low-income and working-class rural fathers. Thus, the current study will use latent profile analysis (LPA) to examine whether profiles of father-infant parenting quality can be identified across social-emotional and linguistic dimensions of fathering in a sample of predominantly low-income and working-class fathers living in nonmetropolitan communities ( $n = 492$ ). Multinomial logistic regression models will then be used to investigate whether and how paternal experiences of various workplace stressors are associated with the probability of membership in the latent fathering classes.

*Aim 2: To examine the levels and correlates of involvement with youth among residential African American fathers in working- and middle-class families.*

Despite a growing recognition of the need to study within-culture variation in fathering (McAdoo, 1993), surprisingly little is known about the amount of time residential fathers spend with youth in African American families, as well as the individual, family, and contextual correlates of paternal involvement. Thus, the current study will examine levels of father involvement with youth in a sample of two-parent, working- and middle-class African American families ( $n = 270$  youth in 135 families). The study will also incorporate multiple

operationalizations of father involvement in order to consider the potential meaning of involvement for multiple family members, including fathers, mothers, and children (Palkovitz, 2005). Multilevel modeling (MLM) will then be used to examine father, family, and contextual characteristics that may be associated with differences in father involvement.

*Aim 3: To examine associations between profiles of family-to-work spillover and paternal well-being among rural fathers with young children.*

Although recent research by Grzywacz and Marks (2000) suggests that spillover from family-to-work can be both positive and negative, and, further, that “these two dimensions might coexist to some degree, and each dimension may have common and distinct determinants and consequences” (p. 112), no research to date has attempted to examine the patterning of fathers’ positive and negative family-to-work spillover in combination. Thus, the current study uses latent profile analysis (LPA) to examine whether profiles of fathers can be identified based on their reports of positive and negative family-to-work spillover, and multinomial logistic regression to examine individual and family factors associated with the probability of membership in the latent spillover classes ( $n = 403$ ). Finally, as previous research suggests that spillover is associated with fathers’ well-being (e.g., Frone, 2003), multiple regression will be used to examine associations between paternal membership in spillover classes and fathers’ depressive symptoms and job satisfaction.

## Chapter 2

### Paternal Work Stress and Father-Infant Parenting Quality: A Latent Profile Analysis

Over the past several decades, researchers have increasingly recognized that work stress can shape the quality of fathers' relationships with their children. Previous research indicates that a variety of occupational stressors predict lower quality parent-child interactions, including long hours at work, nonstandard work shifts, high levels of job pressure, and low levels of workplace support (e.g., Davis, Crouter, & McHale, 2006; Greenberger, O'Neil, & Nagel, 1994; NICHD ECCRN, 2000; Repetti, 1994). These studies are consistent with a role stress perspective on the work-family interface, which suggests that experiences of occupational stress may negatively impact the quality of parent-child relationships, through the negative effects of work stress on parents as individuals (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989).

Although progress has been made in identifying specific work characteristics that predict variations in parenting quality, less is known about whether and how experiences of workplace stress may shape fathers' interactions with their infants (for exceptions, see Costigan, Cox, & Cauce, 2003; Goldberg, Clarke-Stewart, Rice, & Dellis, 2002; Goodman, Crouter, Lanza, & Cox, 2008; Volling & Belsky, 1991). Further, many studies have taken a variable-oriented approach to the study of work stress and fathering, rather than a holistic or "person-oriented" approach. As defined by Bergman and Trost (2006), a variable-oriented approach is one which focuses on measuring discrete variables and studying their associations over time, typically using some form of linear modeling (e.g., regression, structural equation modeling). In contrast, with a person-oriented approach the underlying interest lies in examining the individual as an integrated whole, and involves grouping individuals who share similar profiles across multiple indicators

(e.g., cluster analysis, latent profile analysis). While variable-oriented approaches have expanded our understanding of work stress effects on discrete parenting behaviors, examining these associations using a person-oriented approach may offer unique insight into work-family relationships by focusing on the impacts of work stress on parenting as a holistic process.

In the case of fathers, it is possible that work stress may negatively impact multiple dimensions of parenting, with potential implications for children's development. Although work-family researchers have examined the influence of work stress on social-affective aspects of paternal parenting (e.g., warmth, sensitivity, and engagement), investigations by linguistic researchers suggest that the amount and complexity of language stimulation provided in the context of parent-child relationships is also important (e.g., Duursma, Pan, & Raikes, 2008). Little is known, however, about whether and how work stress may impact fathers' language stimulation, and no study to date has attempted to examine associations between workplace stress and social-affective and linguistic aspects of fathering in combination. This more nuanced view of fathering is important for understanding the specific ways in which work stress impacts parenting. Thus, the current study addresses an important limitation to the work-family literature, as both social-affective and linguistic dimensions of fathering are associated with multiple infant and child development outcomes, including social skills, receptive vocabulary, and cognitive development (e.g., NICHD ECCRN, 2004; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004).

The current study sought to expand upon previous research by examining whether patterns of fathers' social-affective and linguistic parenting behaviors could be identified in a large, ethnically diverse sample of predominantly lower- and working-class families living in nonmetropolitan communities. Consistent with a role stress perspective on work stress and parenting quality, the current study also examined whether occupational stressors, including long

hours at work, nonstandard work shifts, high pressure, and a nonsupportive work environment, were associated with patterns of fathering, and whether these associations were mediated by paternal well-being. Fathers living in nonmetropolitan communities may be particularly vulnerable to experiences of workplace stress, as previous research suggests that fewer employment opportunities are available in rural communities, and further, that the jobs that are available are likely to be lower-quality compared to jobs available in urban areas (Gibbs, Kusmin, & Cromartie, 2005). Finally, as the combination of long work hours and high job stress may be particularly detrimental to the quality of father-child relationships (e.g., Crouter, Bumpus, Head, & McHale, 2001), variations in associations between work stressors and fathering profiles according to the amount of time fathers spent in the workplace were examined.

#### *A Person-Oriented Approach to Fathers' Parenting*

Although variable-oriented approaches are useful for modeling predictors and correlates of fathering, such approaches involve examining individual dimensions of parenting behaviors. While these approaches have led to detailed information about individual fathering behaviors, they have also contributed to a compartmentalization of empirical research on parenting. For example, while previous studies suggest that parental sensitivity and language use both make meaningful contributions to children's socioemotional development (e.g., Duursma et al., 2008; NICHD ECCRN, 2004), these processes are rarely examined together, obscuring how these qualities uniquely combine in different groups of fathers. Jain, Belsky, and Crnic (1996) noted that the majority of studies of father parenting have "focused on fathering behaviors, rather than fathers as individuals" (p. 432), and proposed that a person-oriented approach to the study of fathering may provide important insight. Although it is often assumed that levels of parenting quality are similar across dimensions (e.g., high sensitivity and high linguistic stimulation),



multidimensional conceptualizations of parenting suggest that this may not be the case (Bornstein, Tamis-LeMonda, Hahn, & Haynes, 2008; Jain et al.). By identifying unique subgroups of fathers based on the quality of their interactions with infants, insight may be gained into how work stressors predict specific patterns of parenting, providing nuanced information that can complement findings based on more traditional, variable-oriented approaches.

#### *Paternal Work Stress and Father-Infant Parenting Quality*

The individual cannot be understood outside of his or her environment, including the proximal and distal factors that shape individual functioning (Bronfenbrenner, 1979). Consistent with this ecological perspective, a significant body of research suggests that work conditions may facilitate or impede high-quality parent-child interactions. Specifically, jobs characterized by high levels of stress, including long hours, nonstandard work shifts, high pressure, and low support may negatively influence the quality of the father-infant relationship.

*Weekly Work Hours.* Among employees working at least 20 hours per week, men spend almost 50 hours per week on average in the workplace (Bond, Galinsky, & Swanberg, 1998). Previous research suggests that long hours in the workplace are associated with increased feelings of time strain for fathers, negatively impacting the quality of the father-child relationship (Milkie, Mattingly, Nomaguchi, Bianchi, & Robinson, 2004). Grossman, Pollack, and Golding (1988), however, found that fathers who were more involved in their work, including working longer hours, showed greater warmth, responsiveness, and positive affect during interactions with their young children. These apparently contradictory findings suggest that long work hours may be detrimental to parenting quality for some groups of fathers, but beneficial for others.

*Nonstandard Work Shifts.* Despite considerable interest in the implications of shift work for individual well-being and family life (e.g., Perrucci et al., 2007), surprisingly little is known

about the associations between shift work and parent-child relationship quality. Barnett and Gareis (2007) found no associations between maternal shift work and mother-child relationship quality, but they did not examine such associations for fathers. Previous research examining father-adolescent relationships, however, found that fathers working nonstandard shifts knew less about their children's daily activities and enjoyed lower levels of intimacy when they also experienced higher levels of marital conflict (Davis et al., 2006). To date, no research has examined associations between nonstandard work shifts and father-infant relationship quality.

*Work Pressure.* Previous research suggests that jobs characterized by high pressure, including high demands and heavy workloads, may negatively influence parent-child relationship quality. Greater job demands have been linked to increased paternal rejecting behaviors and decreased authoritative parenting, as well as decreased use of firm but flexible control and increased harsh discipline with elementary school-age children (Greenberger, et al., 1994; Stewart & Barling, 1986). Further, greater time pressure was associated with less sensitivity in father-infant caregiving interactions (Goldberg et al., 2002). Although, to date, researchers have not examined associations between work pressure and person-oriented profiles of fathering, it is likely that high pressure will be associated with fathers' membership in groups characterized by less sensitive and involved parenting. Effects of work pressure on linguistic dimensions of fathering are less clear, as these associations have yet to be empirically examined. Research by Repetti (1994), however, suggests that some fathers withdraw from interactions as a means of coping with work-related stressors, which may result in lower linguistic stimulation.

*Nonsupportive Work Environment.* Several studies have found that the presence of a nonsupportive work environment, including low levels of flexibility and low levels of coworker and supervisor support, were associated with lower quality fathering behaviors, including less

sensitive and more detached parenting (Goodman et al., 2008; Volling & Belsky, 1991). Further, a less supportive work environment has been linked to greater paternal negative feelings towards their children and increased withdrawal behaviors during father-child interactions with preschoolers (Repetti, 1994). Given these findings, it is likely that a nonsupportive work environment will be associated with fathering profiles characterized by fewer positive and more negative social-affective dimensions, and perhaps reduced linguistic stimulation.

#### *Paternal Time Resources and Father-Infant Parenting Quality*

Role stress theory suggests that work stress impacts parenting indirectly, through the negative effects of work stress on parents as individuals. Experiences of work stress may result in feelings that work limits time available for the family, which in turn may negatively impact father-infant relationship quality. With regard to fathers' time spent with their children, Daly (1996) concluded that "time was the chief currency that seemed to guide many of their decisions and reflect their commitments as fathers" (p. 469). Work stress, however, is likely to negatively impact fathers' time available for their family life, a conclusion supported by recent research (e.g., Daly; Milkie et al., 2004). Further, limited time resources and high demands have been linked to lower quality father-child relationships, although the majority of these studies have focused on fathers with adolescents (e.g., Crouter et al., 1999). The current study examined whether associations between work stress and membership in the fathering subgroups were mediated by paternal feelings of time availability.

#### *Additive Effects of Paternal Work Hours and Work Stressors*

Although numerous studies have found direct links between work stress and lower quality parenting with infants and young children (e.g., Goldberg et al., 2002; Greenberger et al., 1994; Repetti, 1994), previous studies suggest that the *combination* of long hours in the

workplace and exposure to workplace stressors may place individuals at the greatest risk for negative relationship outcomes (Barnett, 1998). For example, long hours in the workplace predicted lower quality father-adolescent relationships, including less acceptance and greater conflict for fathers who also perceived high levels of overload (Crouter et al., 2001). Further, working long hours in jobs high in care work was associated with lower quality father-infant play interactions, although such associations were not observed for jobs with less supportive work environments (Goodman et al., 2008). To date, little is known about how associations between nonstandard work shifts or work pressure and father-infant interaction quality may vary depending on paternal work hours.

#### *Father, Family, and Child Characteristics*

Several father, child, and family characteristics were included as covariates that previous research suggests may be predict parent-child relationship quality. Father age and education level were included, as older and better-educated fathers may provide more engagement, sensitivity, and linguistic stimulation with children (Rowe, Pan, & Ayoub, 2004; Volling & Belsky, 1991). Paternal ethnicity and marital status were also included, as culture and cohabitation may shape fathers' parenting behaviors (Manning, 2002; NICHD ECCRN, 2000). Fathers' partner relationship quality was included, as it has been linked to paternal sensitivity, warmth, and linguistic stimulation (e.g., NICHD ECCRN, 2000). Due to the interest in associations between work stressors, time resources, and parenting quality, family income was included to hold constant economic resources. The number of children in the home under age five was also included, as Menaghan and Parcel (1995) found that the presence of multiple young children in the home predicted lower parenting quality. Finally, child gender was included, as gender may affect fathers' interaction style and language usage (Power & Parke, 1983).

### *Research Questions*

Guided by a person-oriented approach to parenting research (e.g., Bergman & Trost, 2006) and a role stress perspective on work-parenting relationships (e.g., Bolger et al., 1989), the following research questions were addressed:

1. Can meaningful person-oriented profiles of fathers' parenting quality with infants be identified on the basis of social-affective and linguistic interactions?
2. Accounting for numerous father, child, and family characteristics, are paternal work stressors associated with membership in the different parenting subgroups?
3. Are associations between work stress and membership in the parenting subgroups mediated by fathers' perception of time availability?
4. Are associations between work stress and membership in the fathering subgroups moderated by paternal work hours?

### Method

#### *Participants*

Data came from the Family Life Project, an ongoing longitudinal study of families living in predominantly low-income, nonmetropolitan counties in North Carolina and Pennsylvania ( $n = 1292$ ). Only families where the employed biological father was living in the home when the target child was approximately 6-months of age were included in the current study. In total, 1571 families were invited to participate in the first wave of data collection when the target child was 2-months-old, and 1,292 (82%) participated. Of these families, 1,204 (93%) later participated in the second wave of data collection when the target child was approximately 6-months-old, and 496 of these (42%) families included the employed biological father of the target child who successfully completed two father-infant interactions conducted during the 6-month assessment.

Of these families, four (1%) were dropped because the father identified his primary race as something other than White or African American. Additionally, three families were missing data for one of more covariates included in the current analyses. Due to the low amount of missing data (less than one percent of the total sample), these missing values were imputed using single imputation (Schafer & Graham, 2002). Thus, the current analyses included 492 families.

Table 2-1 provides the means and standard deviations for the variables used in the current analyses. Fathers were, on average, 31 years old, White (83%), married (80%), and had an average education level equivalent to a high school degree, plus some additional training. Child gender was almost equally distributed between boys (51%) and girls (49%).

### *Procedure*

Trained interviewers conducted two in-home visits when the target child was approximately six months of age, collecting questionnaire data from parents and observational data on the mother, target child, and when applicable, father. All father data were collected during the first home visit. Questionnaire data were collected via laptop computer; observational data were videotaped for later coding. Written consent was obtained from parents prior to conducting home visits (for a detailed description of sample selection and study procedures, see Vernon-Feagans et al., 2008).

### *Measures*

*Father-infant interactions.* Fathers participated in two semi-structured observational interactions designed to assess father-infant parenting quality. First, fathers completed a 10-minute, videotaped freeplay interaction, in which they were given a standard set of toys and instructed to play with the child as they normally would if they had a little free time (Cox, Paley, Payne, & Burchinal, 1999). Trained coders later rated the videotaped interactions to assess global

levels of *sensitivity* (responsiveness to child's needs, gestures, and expressions;  $M = 2.74$ ,  $SD = 0.74$ ), *intrusiveness* (degree to which the father imposed his own agenda on the interaction;  $M = 2.62$ ,  $SD = 0.77$ ), *detachment* (emotional disengagement;  $M = 2.91$ ,  $SD = 0.92$ ), *positive regard* (positive feelings expressed toward child;  $M = 2.99$ ,  $SD = 0.98$ ), *negative regard* (negative feelings expressed toward the child ( $M = 1.78$ ,  $SD = 0.84$ )), *animation* (energy or excitement;  $M = 2.91$ ,  $SD = 0.96$ ), and *stimulation for development* (appropriate scaffolding of activities;  $M = 2.40$ ,  $SD = 0.89$ ). Ratings for each code were made on a 1-5 scale, ranging from *not at all characteristic* to *highly characteristic*; reliability was determined by calculating intraclass correlations for ratings made by two coders on approximately 30% of the tapes randomly drawn at the 6-month assessment period (ICC range = .62 - .78).

Second, fathers participated in a videotaped picture book activity, in which they were instructed to go through a wordless picture book with their infant as they normally would, and to inform the interviewers when the task was completed. Evidence suggests that a majority of lower- and working-class fathers engage in bookreading activities with their young children on a routine basis (Duursma et al., 2008), making observations of such interactions useful for gaining insight into paternal linguistic stimulation. Interactions were later transcribed and coded using Systematic Analysis of Language Transcripts software (SALT; Miller & Chapman, 1986). For the current analyses, three variables were used to assess the overall amount and quality of verbal stimulation provided by fathers. *Total number of utterances* ( $M = 72.59$ ,  $SD = 41.45$ ) was used as an indicator of the amount of verbal stimulation during the interaction. The *total number of questions* ( $M = 20.26$ ,  $SD = 14.31$ ) by the father and the *total number of different word roots* ( $M = 73.03$ ,  $SD = 31.62$ ) were used as indicators of the quality and complexity of fathers' talk during the interaction. Additionally, because fathers determined when the interaction was

complete, *length of observation* ( $M = 180.30$  seconds,  $SD = 81.46$ ) was included as a measure of the time fathers spent in the picture book task with their infant. Transcribers trained for three months learning the proper conventions for transcribing the videotaped observations for SALT coding. At the completion of training, transcribers completed transcriptions of 20 training observations, which were then reviewed by a senior trainer to ensure transcription accuracy. Further, transcribed tapes were regularly checked by senior trainers to ensure continued reliability throughout the coding process. Once transcribed, coding was completed automatically by the SALT software program.

*Background information.* Parents provided information on age, race, education, marital status (i.e., married or cohabiting), and child gender.

*Income-to-needs ratio.* Family income resources were estimated by calculating an income-to-needs ratio score. Household income contributions from all family members were summed, along with income from any additional sources (e.g., child support, TANF, etc.). Total household income was then divided by the U.S. Government's poverty threshold for that year (differentiated by family size and number of children) to obtain an income-to-needs ratio score. A score of 1.00 corresponds to a family income equal to the poverty threshold. A log transformation was applied to the income-to-needs ratio score to correct for nonnormality.

*Parental relationship instability.* Fathers completed the Relationship Instability Scale, a 5-item subscale of the Dimensions of Marital Quality Scale (Johnson, White, Edwards, & Booth, 1986) assessing perceptions of relationship instability and behaviors such as discussing divorce or a break-up (e.g., "Have you or your spouse ever seriously suggested the idea of a divorce/break-up?"). Responses were rated on a 6-point scale ranging from *never* to *yes, within the last 3 months*; higher scores reflect greater instability ( $\alpha = .79$ ).



*Time resources.* Fathers completed 7-items from the Time for Self and Time for Family subscales of the Family Resource Scale – Revised (van Horn, Bellis, & Snyder, 2001), measuring fathers’ perceptions of time availability (e.g., “To what extent is there enough time to be with your child(ren)?”). Responses were rated on a 5-point scale, ranging from *not at all adequate* to *almost always adequate*; higher scores reflect greater time availability. Factor analysis results suggested that all seven items loaded onto a single factor – thus the items were averaged to create a single measure of paternal time resources ( $\alpha = .86$ ).

*Weekly work hours.* Fathers reported the total number of hours worked at all jobs for which they worked five or more hours per week.

*Nonstandard work shifts.* Fathers reported on the typical shift worked for their primary job, based on the following options: (a) fixed day shift (most hours between 8 a.m. and 4 p.m.), (b) fixed evening shift (most hours between 4 p.m. and midnight), (c) fixed night shift (most hours between midnight and 8 a.m.), (d) rotating shift (hours change to different shifts periodically), (e) irregular (daily schedule determined by employer for each week or so), or (f) other. Because some shift work groups were quite small, a dichotomous variable was created for nonstandard work shifts – all fathers not working a standard day shift were coded as working a nonstandard work shift.

*Work pressure.* Fathers completed the 9-item Work Pressure subscale from the Work Environment Scale (Moos, 1986), assessing the degree to which the workplace is characterized by high demands and frequent deadlines (e.g., “There is constant pressure to keep working”). Responses were rated on a 4-point scale ranging from *strongly agree* to *strongly disagree*; higher scores reflect greater pressure ( $\alpha = .79$ ).

*Nonsupportive work environment.* Fathers completed three measures assessing informal workplace supports. Fathers completed a 4-item version of the Flexible Work Arrangements Scale (Bond, Galinsky, & Swanberg, 1998), which measures the degree to which respondents feel their workplace allows them to balance work and family roles (e.g., “At my place of employment, employees have to choose between advancing in their jobs or devoting attention to their family or personal lives”). Responses were rated on a 4-point scale ranging from *strongly agree* to *strongly disagree*. Items were reverse scored such that higher scores reflect lower levels of flexibility. Fathers also completed the 9-item Supervisor Support (e.g., “Supervisors often criticize employees over minor things”) and the 9-item Coworker Support (e.g., “Employees often talk to each other about their personal problems”) subscales from the Work Environment Scale (Moos, 1986). Responses were rated on a 4-point scale ranging from *strongly agree* to *strongly disagree*; higher scores reflect less support. Mean scores for the three scales were standardized and summed to create a composite measure of nonsupportive work ( $\alpha = .77$ ).

#### *Analytic Strategy*

Latent profile analysis (LPA) was used to examine whether holistic patterns of fathering behaviors could be identified across multiple dimensions of parenting, as well as to explore whether paternal experiences of work stress predicted the probability of paternal membership in the latent parenting classes. LPA models associations between continuous observed variables and categorical latent classes. Computationally, LPA identifies subgroups, or latent classes, in a population characterized by different patterns of responses to the observed variables (Muthén, 2001). It was hypothesized that paternal parenting was multidimensional, and that unique subgroups of fathers existed with qualitatively different patterns of parenting behaviors across social-affective and linguistic dimensions of parenting.

To examine whether multiple subgroups of father-infant interaction quality could be identified, latent profile models with one to seven classes were fit using Mplus version 5.2 (Muthén & Muthén, 2008). Variables were standardized prior to estimating the LPA models to account for differences in rating scales across the two interactions. Relative interpretability and multiple fit indices, including the Bayesian information criterion (BIC), Akaike information criterion (AIC), Lo-Mendall-Rubin likelihood ratio test (Lo, Mendell, & Rubin, 2001), and entropy statistic (Celeux & Soromenho, 1996) for each model were examined to determine the optimal number of classes. Next, covariates were added to the final latent profile model within the Mplus program to examine whether paternal experiences of work stress were associated with membership in the latent fathering classes. Paternal perceptions of time resources was then added as a covariate to examine whether perceptions of limited time mediated associations between experiences of work stress and class membership. Finally, potential differences between work stressors and membership in the latent fathering classes as a function of paternal work hours were examined. Interaction terms were first examined individually; all interaction terms that were significant on their own were then entered concurrently into a final model. Post hoc tests of significant interactions were conducted following Aiken & West (1991).

## Results

Bivariate associations between paternal work characteristics, father and child individual characteristics, and family and demographic characteristics appear in Table 2-2. Older, White, and better-educated fathers were more likely to be married and had greater financial resources. Older fathers worked more hours per week; better-educated fathers worked more hours and also had more supportive work environments. African American fathers had less supportive work environments, but also reported working jobs with less pressure. Finally, greater work hours and

work pressure, as well as a less supportive work environment, were all associated with less paternal time for family and friends.

#### *A Latent Typology of Father-Infant Parenting Quality*

A 5-class model of father parenting quality was selected based on its optimal balance between model fit and parsimony (see Table 2-3). The 5-class model had the lowest AIC and BIC values, as well as an entropy score approaching 1.00, suggesting that the classes were clearly delineated (Celeux & Soromenho, 1996). Further, the 6- and 7-class models failed to converge, even after increasing the number of starting values and model iterations, suggesting that these models were not identified (Muthén & Muthén, 2007). An examination of the standardized mean scores for the 5-class model suggested that the classes were distinguishable, and that meaningful labels could be assigned to each class.

Table 2-4 shows the standardized mean scores for the parenting indicators used in the current model. Classes were assigned labels based on the primary features that distinguished them from each other. For example, slightly less than half of fathers (42%) were characterized by relatively average levels of social-affective and linguistic dimensions of parenting. Thus, this class was labeled ‘Average Parenting’. Two additional subgroups of fathers were distinguished based on their relatively high mean scores on multiple dimensions of positive parenting. The first class, labeled ‘Sensitive / Engaged’ (12% of fathers), consisted of fathers with very high sensitivity, low detachment and intrusiveness, and high positive regard, animation, and stimulation for development. These fathers were also moderately verbal, with above average linguistic stimulation and complexity. The second class consisted of fathers characterized by high scores on linguistic stimulation and complexity, as well as above average scores on positive

regard, animation, and stimulation for development. This class, labeled ‘Verbal / Stimulating’, made up 17% of the study sample.

Multiple dimensions of negative parenting characterized the final two classes. The first class consisted of fathers characterized by very high detachment, and low sensitivity, animation, positive regard, and stimulation for development. These fathers also had below average language stimulation and complexity. Thus, this class was labeled ‘Detached / Low Verbal’ (19% of the sample). The final class, labeled ‘Intrusive / Negative’ (12% of the study sample), included fathers characterized by relatively high intrusiveness and negative regard, as well as low sensitivity. In contrast to the ‘Detached / Low Verbal’ class, however, fathers in the ‘Intrusive / Negative’ class were characterized by average linguistic stimulation and complexity.

#### *Paternal Work Stress and Father Membership in Latent Parenting Classes*

As shown in Table 2-5, African American fathers were over 12 times more likely than White fathers to be in ‘Detached / Low Verbal’, ‘Intrusive / Negative’, or ‘Verbal / Stimulating’ classes, and over nine times more likely to be in ‘Average Parenting’ class, relative to the ‘Sensitive / Engaged’ reference class. Further, cohabiting fathers were 3.5 (1 / .28) times *less* likely to be in the ‘Verbal / Stimulating’ class, and fathers with sons were 1.8 times more likely to be in the ‘Verbal / Stimulating’ class, relative to the ‘Sensitive / Engaged’ reference class, although these associations only approached significance. Note, however, that many characteristics frequently associated with paternal parenting quality, including paternal education and age, and parental relationship quality were unrelated to membership in the latent classes.

Examining associations between paternal work stressors and the latent parenting classes, a less supportive work environment predicted significant differences between the ‘Sensitive / Engaged’ reference class and the four remaining parenting classes. Specifically, fathers with less

supportive workplace environments were 1.9 times more likely to be in the ‘Detached / Low Verbal’ class and 1.7 times more likely to be in the ‘Intrusive / Negative’ class, relative to the ‘Sensitive / Engaged’ reference class. Further, fathers with a less supportive work environment were also 1.5 times more likely to be in the ‘Average Fathering’ class and 1.6 times more likely to be in the ‘Verbal / Stimulating’ class, relative to the ‘Sensitive / Engaged’ reference class. Work hours, nonstandard work shifts, and work pressure were not directly related to membership in the fathering latent classes.

Next, paternal time resources was added to the model to examine whether time resources mediated the association between paternal nonsupportive work and the probability of membership in the latent fathering classes. Consistent with Baron and Kenny’s (1986) conceptualization of mediation, the following associations were examined: (a) whether nonsupportive work predicted time resources, (b) whether time resources predicted the probability of father membership in the latent fathering classes, and (c) whether controlling for time resources reduced or eliminated the previously significant associations between nonsupportive work and probability of membership in the latent classes. Results revealed that a less supportive work environment predicted more limited time resources ( $b = -.32, p < .01$ ), but paternal time resources was not significantly associated with the probability of membership in any of the latent fathering classes. Further, with time resources added to the model, paternal nonsupportive work remained a significant predictor of fathers’ probability of membership in all four latent parenting classes, relative to the ‘Sensitive / Engaged’ reference class. Thus, paternal time resources did not mediate the association between paternal nonsupportive work and the probability of membership in the latent fathering classes.

Finally, interaction terms were added to the model to examine whether paternal work hours moderated the associations between paternal shift work, work pressure, and nonsupportive work, and the probability of membership in the latent parenting classes. The nonsupportive work X work hours interaction was not associated with the probability of latent class membership on its own, so it was removed from the final model. As shown in Table 2-6, the work pressure X work hours interaction predicted a significant difference in the probability of membership for both the ‘Intrusive / Negative’ and ‘Verbal / Stimulating’ classes, relative to the ‘Sensitive / Engaged’ reference class. Post hoc analyses revealed that, under conditions of low work hours, fathers reporting greater work pressure were 2.8 times *less* likely to be in the ‘Intrusive / Negative’ class and 1.8 times *less* likely to be in the ‘Verbal / Stimulating’ class, relative to the ‘Sensitive / Engaged’ reference class, although the latter association only approached significance. Finally, the job pressure X work hours interaction was also associated with a differential probability of latent class membership between the ‘Average Parenting’ class and the ‘Sensitive / Engaged’ reference class. This association, however, only approached significance. The nonstandard work shift X work hours interaction predicted a significant difference in the probability of membership in the ‘Average Parenting’ class, relative to the ‘Sensitive / Engaged’ reference class. Post hoc analyses revealed that, under conditions of low work hours, fathers working nonstandard shifts were 6.4 times *less* likely to be in the ‘Average Parenting’ class, but under conditions of high work hours, fathers working nonstandard schedules were 4.7 times more likely to be in the ‘Average Parenting’ class.

### Discussion

This study explored whether meaningful person-oriented profiles of fathers’ parenting quality with infants could be identified across distinct types of fathering, social-affective

behaviors and linguistic stimulation and complexity. The study also examined whether paternal experiences of multiple work stressors were associated with the probability of fathers' membership in these parenting subgroups. Latent profile analysis revealed clear and meaningful groups of fathers based on both dimensions of parenting quality. Consistent with a role stress perspective on work and parenting associations, experiences of a nonsupportive work environment were associated with the probability of paternal membership in the latent parenting classes. Further, work pressure and nonstandard work shifts predicted the probability of membership in the latent fathering classes, although these associations varied depending on the number of hours fathers spent in the workplace.

With respect to the parenting subgroups, fathers were distinguished most markedly by their classification as sensitive, intrusive, or detached during the freeplay interaction, as well as low or average to high on verbal stimulation and complexity during the picture book interaction. The largest subgroup of fathers (42%) was classified as 'Average Parenting' across the two parent-infant interactions. They exhibited parenting behaviors that could be characterized broadly as indicative of "good enough" parenting (Scarr, 1992), including slightly above average sensitivity, average levels of other social-affective dimensions, such as positive regard and stimulation for development, and slightly below average linguistic stimulation. Approximately one-third of fathers demonstrated more negative patterns of fathering, including low sensitivity and high detachment or intrusiveness that are frequently associated with maladaptive child outcomes, such as greater internalizing and externalizing behaviors, and poor early cognitive and language development (e.g., Duursma et al., 2008; NICHD ECCRN, 2004; Tamis-LeMonda et al., 2004). Interestingly, in examining the subgroups characterized by more positive parenting dimensions, the fathers who were the most sensitive and positive, as well as the least detached



and intrusive ('Sensitive / Engaged' fathers), were not the same fathers who exhibited the highest language complexity and stimulation ('Verbal / Stimulating' fathers). This finding highlights one strength of a person-oriented perspective, as it revealed that fathers' parenting quality is not always consistent across different dimensions of parenting.

Consistent with a role stress perspective on work and family relationships (e.g., Bolger et al., 1989), a nonsupportive work environment was associated with fathers' membership in multiple subgroups characterized by lower overall parenting quality, including the 'Detached / Low Verbal', 'Intrusive / Negative', and 'Average Parenting' classes. This is consistent with the notion that the stress associated with less co-worker and supervisor support and less flexible work arrangements may negatively impact the quality of father-infant interactions (e.g., Goodman et al., 2008; Repetti, 1994; Volling & Belsky, 1991), predicting such behaviors as high negativity and withdrawal, as well as low sensitivity, positivity, and stimulation. This is the first study, however, to examine the link between a nonsupportive workplace and a typology of paternal parenting that incorporates both social-affective and linguistic dimensions of fathering. Further, the current findings represent associations between paternal reports of nonsupportive work and observations of parenting behaviors across two separate, objectively rated interactions; in other words, the associations do not reflect correlations between paternal self-reports of work stress and parenting quality. Finally, although a more nonsupportive work environment was also associated with a higher probability of membership in the 'Verbal / Stimulating' subgroup, this class was characterized by relatively lower sensitivity and higher intrusiveness, compared to the 'Sensitive / Engaged' reference class, suggesting that a lack of workplace support may have the greatest negative impact on fathers' abilities to be affectively attuned to, and to sensitively respond to, their child's needs during interactions.

As hypothesized in previous research (Barnett, 1998), our findings also revealed that the associations between two types of work stressors, work pressure and nonstandard work shifts, varied depending on the number of hours fathers spent in the workplace. Specifically, when fathers worked more hours on a nonstandard shift, they had a significantly greater probability of being in the ‘Average Parenting’ class relative to ‘Sensitive / Engaged’ reference class. This is consistent with previous research suggesting that nonstandard work shifts may result in lower quality parenting for fathers (e.g., Davis, et al., 2006), although this is the first study of this kind with infants. It should be noted, however, that, unlike a nonsupportive work environment, working longer hours on a nonstandard shift was not associated with a greater probability of membership in the two fathering classes characterized by the most negative parenting behaviors (the ‘Detached / Low Verbal’ and ‘Intrusive / Negative’ classes). This suggests that, while the stress associated with employment at jobs with long hours and nonstandard shifts may result in moderate deficits in fathers’ parenting, the relative impact of nonstandard work shifts appears to be less severe compared to jobs with lower workplace support.

Surprisingly, when fathers were employed for fewer hours on a nonstandard shift, they were significantly less likely to be classified in the ‘Average Parenting’ class relative to ‘Sensitive / Engaged’ reference class. Further, fathers who worked fewer hours at jobs characterized by high levels of pressure were less likely to be in the ‘Intrusive / Negative’ and ‘Verbal / Stimulating’ classes, relative to the ‘Sensitive / Engaged’ class. Although not consistent with the hypothesis that longer hours in a stressful work environment may predict lower quality parenting, these findings suggest that limited hours in the workplace may buffer fathers against the negative effects of certain types of work stressors, including pressure and nonstandard work shifts. Given that the current sample consisted of predominantly low-income and working-class

fathers living in rural communities characterized by a relative dearth of high-quality jobs (Gibbs et al., 2005), fathers in the current sample may have found the challenge of working a job with relatively higher pressure personally rewarding, provided that they were not exposed to these job environments for extended periods of time. Further, employment that involves a limited number of nonstandard works hours may not represent a significant source of stress, and may also provide fathers with greater opportunities to be involved in the parenting role during the day. Greater involvement in turn, has been linked previously to higher quality father-child relationships (e.g., Almeida & Galambos, 1991). It is also possible that these fathers may have actively selected jobs with nonstandard work shifts to allow for greater time with their children (e.g., Brayfield, 1995), although this hypothesis could not be tested in the current study.

A number of limitations should be noted. First, although results of the latent profile analyses suggest that fathers' parenting with infants can be characterized by a 5-class parenting typology, the current analyses were exploratory in nature, and limited to a sample of predominantly low-income and working class fathers. Future research is needed to determine whether this parenting typology can be replicated with more diverse samples. Additionally, it is possible that father-infant parenting typologies would differ from those found in the current study if paternal parenting quality was examined across additional contexts or settings. It is also possible that other correlates of paternal parenting quality not measured in the current study, such as maternal gatekeeping behaviors, may predict the probability of fathers' group membership above and beyond the characteristics examined in the current investigation. Finally, fathers' personal resources (e.g., personality, coping skills) represent a potential confound that could not be fully addressed in our analyses. Although we controlled for paternal education and family income, and examined paternal time resources as a potential mediator of work-parenting

relationships, it is possible that fathers with fewer personal resources experienced greater work stress and exhibited lower quality parenting behaviors.

Overall, the current study has several strengths, including the use of holistic profiles of fathers' parenting behaviors, allowing for an examination of both social-affective and linguistic dimensions of fathering, two distinct traditions of research rarely integrated in the fatherhood literature. Further, these results expand our understanding of the work-family interface by examining associations between paternal experiences of multiple work stressors and multidimensional profiles of father-infant parenting quality. Finally, the current study was based on a large, predominantly lower- and working-class sample of rural fathers with infants, an understudied population, using observational measures of father-infant interactions that were objectively rated by coders for multiple aspects of parenting quality.

In sum, results from this study suggest that a global typology of parenting behaviors can be developed incorporating multiple dimensions of fathers' parenting quality, and suggests that several unique patterns of fathering behavior may exist during infancy. The current study also extended previous research examining associations between work stress and father-child relationships (e.g., Crouter et al., 2001), indicating that low levels of workplace support may negatively impact fathering in infancy. Going forward, work-family theories are needed that account for the differential associations work stressors have with these patterns of fathering. Further research is also needed to better understand the implications of patterns of fathering behavior in infancy for children's subsequent social, emotional, and cognitive development. Examining fathering as a multi-faceted phenomenon in future research may offer unique insight into the ways in which work and parenting influence young children's development.

Table 2-1

*Descriptive Statistics for Individual, Family, and Workplace Characteristics (n = 492).*

Variables	<i>M</i>	<i>SD</i>	Range	<i>n</i> (%)
Income-to-needs ratio	2.77	1.83	0.36 – 16.49	
Number of children < age 5	1.60	0.67	1.00 – 4.00	
Parental relationship instability	1.77	1.04	1.00 – 6.00	
Father age	30.78	6.18	18.57 – 54.43	
Father education	15.32	2.56	4.00 – 22.00	
Father work hours	46.64	11.80	7.00 – 104.00	
Father work pressure	2.66	0.49	1.22 – 4.00	
Father nonsupportive work environment	2.15	0.44	1.00 – 3.69	
Father time resources	3.26	0.84	1.00 – 5.00	
Marital status				
Married				389 (79.1%)
Cohabiting				103 (20.9%)
Child gender				
Female				240 (48.8%)
Male				252 (51.2%)
Father race				
White				407 (82.7%)
African American				85 (17.3%)
Father work schedule				
Day shift				349 (70.9%)
Nonstandard shift				143 (29.1%)

Table 2-2

*Correlations of Paternal Occupational Conditions and Individual and Background Characteristics (n = 492).*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Income-to-needs ratio	—												
2. Number of children < age 5	-.23**	—											
3. Parental marital status <sup>a</sup>	.25**	.08 <sup>†</sup>	—										
4. Parental relationship instability	-.21**	.09*	-.25**	—									
5. Child gender <sup>b</sup>	.08 <sup>†</sup>	.01	-.01	.06	—								
6. Father age	.19**	.11*	.23**	-.16**	-.02	—							
7. Father race <sup>c</sup>	-.21**	.10*	-.11*	.10*	-.03	-.03	—						
8. Father education	.41**	.05	.32**	-.14**	.02	.29**	-.26**	—					
9. Father time resources	-.01	-.13**	-.05	-.16**	-.01	-.05	.16**	-.10*	—				
10. Father work hours	.18**	.06	.19**	-.03	.02	.11*	-.08 <sup>†</sup>	.11*	-.25**	—			
11. Father nonstandard work schedule <sup>d</sup>	-.06	.01	-.02	.10*	-.03	-.08 <sup>†</sup>	.04	-.07	-.06	.08 <sup>†</sup>	—		
12. Father work pressure	.04	.02	.01	.04	.01	-.07	-.13**	.06	-.22**	.15**	.03	—	
13. Father nonsupportive work	-.13**	-.01	-.09 <sup>†</sup>	.05	.04	-.05	.10*	-.16**	-.17**	.01	.05	.33**	—

<sup>a</sup>Marital status: 0 = *married*, 1 = *cohabiting*. <sup>b</sup>Child gender: 0 = *female*, 1 = *male*. <sup>c</sup>Father race: 0 = *White*, 1 = *African American*. <sup>d</sup>Father nonstandard work schedule: 0 = *standard day shift*, 1 = *nonstandard work schedule*.

<sup>†</sup> $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 2-3

*Comparison of Models for Latent Profiles of Father-Infant Parenting Quality (n = 492).*

<i>Number of Latent Classes</i>	<i>Log Likelihood</i>	<i>AIC</i>	<i>BIC</i>	<i>Lo-Mendel- Rubin</i>	<i>Entropy</i>
1	-7673.79	15391.58	15483.95	---	---
2	-7093.22	14254.45	14397.20	$p < .001$	0.85
3	-6823.46	13738.92	13932.05	$p < .005$	0.88
4	-6677.87	13471.73	13715.24	$p = .19$	0.87
<b>5</b>	<b>-6533.71</b>	<b>13207.41</b>	<b>13501.31</b>	<b><math>p = .09</math></b>	<b>0.95</b>

Note: The 6 and 7 class models did not converge, suggesting nonidentification. Bold font indicates the model that best fit the data.

Table 2-4

*Standardized Mean Scores for a 5-Class Model of Father-Infant Parenting Quality (n = 492).*

	Average Parenting (42%)	Detached / Low Verbal (19%)	Verbal / Simulating (17%)	Intrusive/ Negative (12%)	Sensitive / Engaged (11%)
Father freeplay ratings					
Sensitivity	.35	<b>-1.38</b>	.33	<b>-1.05</b>	<b>1.78</b>
Intrusiveness	-.07	-.42	.22	<b>1.55</b>	<b>-1.02</b>
Detachment	-.16	<b>1.48</b>	<b>-.57</b>	.04	<b>-1.21</b>
Stimulation for development	-.04	<b>-1.01</b>	<b>.77</b>	.10	<b>.68</b>
Positive regard	.00	<b>-1.06</b>	<b>.59</b>	-.05	<b>1.05</b>
Negative regard	-.04	-.31	.10	<b>.84</b>	-.33
Animation	-.06	<b>-1.18</b>	<b>.70</b>	.31	<b>.96</b>
Father picture book ratings					
Total number of utterances	-.35	<b>-.77</b>	<b>1.30</b>	.29	.42
Total number of questions	-.35	<b>-.55</b>	<b>.97</b>	.22	<b>.58</b>
Total number of different word roots	-.29	<b>-.79</b>	<b>1.16</b>	.29	.41
Length of observation	-.29	-.30	<b>.94</b>	.11	.10

Note: Standardized scores greater than .50 above or below the sample mean highlighted in bold.



Table 2-5

*Odds Ratios Relating Family Characteristics, Father and Child Individual Characteristics, and Father Work Stress to Membership in the Latent Parenting Classes (n = 492).*

Variables	Parenting Latent Class			
	Detached / Low Verbal	Intrusive / Negative	Average Parenting	Verbal / Stimulating
	$e^B$	$e^B$	$e^B$	$e^B$
Income-to-needs ratio	0.88	0.86	1.11	1.11
Number of children under age 5	1.04	0.86	0.97	0.98
Marital status <sup>a</sup>	0.62	0.37	0.48	0.29 <sup>†</sup>
Relationship instability	1.05	0.97	0.98	1.00
Child gender <sup>b</sup>	1.15	1.48	1.23	1.88 <sup>†</sup>
Father age	1.01	1.19	1.10	1.12
Father race <sup>c</sup>	12.46*	12.51*	9.18*	12.49*
Father education level	0.84	0.94	0.84	1.35
Father weekly work hours	1.01	0.83	0.82	1.17
Father nonstandard work schedule <sup>d</sup>	0.56	0.65	0.79	0.97
Father work pressure	1.12	0.87	1.04	0.91
Father nonsupportive work	1.89**	1.71*	1.45*	1.63*

Note: All continuous predictors were standardized prior to estimating logistic regression models.

Sensitive / Engaged is the reference class.

<sup>a</sup>Marital status: 0 = *married*, 1 = *cohabiting*. <sup>b</sup>Child gender: 0 = *female*, 1 = *male*. <sup>c</sup>Father race: 0 = *White*, 1 = *African American*. <sup>d</sup>Father nonstandard work schedule: 0 = *standard day shift*, 1 = *nonstandard work schedule*.

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

Table 2-6

*Odds Ratios Relating the Additive Effects of Paternal Work Hours and Work Stressors to Membership in the Latent Parenting Classes (n = 492).*

Variables	Parenting Latent Class			
	Detached / Low Verbal	Intrusive / Negative	Average Parenting	Verbal / Stimulating
	$e^B$	$e^B$	$e^B$	$e^B$
Income-to-needs ratio	0.85	0.83	1.08	1.14
Number of children under age 5	1.03	0.85	0.94	0.99
Marital status <sup>a</sup>	0.60	0.35 <sup>†</sup>	0.45	0.30 <sup>†</sup>
Relationship instability	1.06	0.96	0.97	1.02
Child gender <sup>b</sup>	1.10	1.35	1.18	1.77
Father age	1.01	1.09	1.09	1.10
Father race <sup>c</sup>	16.19 <sup>*</sup>	16.85 <sup>*</sup>	12.26 <sup>*</sup>	16.47 <sup>*</sup>
Father education level	0.85	0.96	0.88	1.30
Father weekly work hours	0.84	0.78	0.57 <sup>*</sup>	1.29
Father nonstandard work schedule <sup>d</sup>	0.54	0.53	0.76	1.05
Father work pressure	1.09	0.85	1.01	0.83
Father nonsupportive work	1.98 <sup>**</sup>	1.76 <sup>*</sup>	1.52 <sup>*</sup>	1.66 <sup>*</sup>
Father nonstandard work schedule X weekly work hours	1.59	1.18	2.14 <sup>*</sup>	0.67
Father work pressure X weekly work hours	1.27	1.52 <sup>*</sup>	1.33 <sup>†</sup>	1.56 <sup>*</sup>

Note: All continuous predictors were standardized prior to estimating logistic regression models.

Sensitive / Engaged is the reference class.

<sup>a</sup>Marital status: 0 = *married*, 1 = *cohabiting*. <sup>b</sup>Child gender: 0 = *female*, 1 = *male*. <sup>c</sup>Father race: 0 = *White*, 1 = *African American*. <sup>d</sup>Father nonstandard work schedule: 0 = *standard day shift*, 1 = *nonstandard work schedule*.

<sup>†</sup> $p < .10$ . <sup>\*</sup> $p < .05$ . <sup>\*\*</sup> $p < .01$ .

## Chapter 3

### African American Father Involvement with Youth in Dual-Earner Families

The role of the father in many families has changed dramatically over the past 30 years. Increasing maternal employment in the paid labor force has resulted in a shift for many fathers from a primary role of family provider to that of a coparent (Pleck, 1997). With this change in social roles has come a growing interest on the part of family researchers in the various personal, family, and contextual characteristics that predict fathers' involvement with their children. Broadly, these studies suggest that a wide variety of factors, including parental education, socioeconomic status, gender and work role attitudes, partner relationship quality, and employment experiences, as well as child age and gender, may shape the amount of time fathers spend with their children (for summaries, see Parke, 2002; Pleck; Pleck & Masciadrelli, 2004). These findings are consistent with both a systems (e.g., Cox & Paley, 1997) and an ecological perspective on parenting (Belsky, 1984; McAdoo, 1993), which suggest that fathers are part of an interdependent family system, and that multiple levels of influence shape fathering, including personal characteristics and family and social contexts.

Although considerable progress has been made in understanding the correlates of father involvement in general, to date the available research on African American father involvement is much more limited; existing studies of African American fathers focus almost exclusively on either experiences of low-income, nonresident, and teenage fathers (e.g., Allen & Doherty, 1996; Fagan, 1998; Jarrett, Roy, & Burton, 2002), or on mean differences in involvement between African American fathers and fathers of other racial and ethnic groups (e.g., Hofferth, 2003; Marsiglio, 1991; Yueng, Sandberg, Davis-Kean, & Hofferth, 2001). Despite acknowledging the

need for research that explores fathering in two-parent and working- or middle-class African American families (Roopnarine, 2004), few studies have examined father involvement and its correlates in these families. This is a noteworthy limitation, as 48% of African American families living in the United States were in married households with a median household income over \$50,000 in 2000 (McKinnon & Bennett, 2005; Roopnarine). Additionally, the limited studies examining predictors of fathering in two-parent, working- and middle-class African American families (e.g., Ahmeduzzaman & Roopnarine, 1992; Hossain & Roopnarine, 1994) have focused on families with young children – little is known about correlates of African American father involvement in middle childhood and adolescence in working- and middle-class two-parent families (see Toth & Xu, 1999 for an exception).

Fathering is an evolving process, and the extent to which characteristics such as paternal age, attitudes towards parenting roles, and child gender predict fathers' time with children may shift throughout the child's life (e.g., Parke, 2002; Parke, et al., 2006). An in-depth examination of two-parent, working- and middle-class African American families with older children can contribute to a greater understanding of the conditions that encourage or inhibit fathering among these families, as well as the variations in involvement that may exist within African American families. Such knowledge could also benefit youth if it leads to effective policies or programs that promote father involvement. Previous research suggests that higher involvement by African American fathers is associated with lower depressive symptoms and delinquency, as well as higher self-esteem and life satisfaction in African American adolescents (Salem, Zimmerman, & Notan, 1998; Zimmerman, Salem, & Maton, 1995). Thus, the current study seeks to expand our understanding of fathering in two-parent African American families by examining the levels and determinants of father involvement in middle childhood and adolescence.

### *Measuring Father Involvement*

Previous studies of father involvement have frequently conceptualized temporal involvement with children in two different ways: research from the time use literature (e.g., Yeung, Sandberg, Davis-Kean, & Hofferth, 2001) has conceptualized involvement as the frequency or amount of time fathers spend with their children overall (total involvement), or in specific activities (e.g., caregiving, play/companionship), while research from the division of labor literature (Barnett & Baruch, 1987) has conceptualized involvement as the amount of time fathers spend with their child relative to total parent time (proportional involvement). Temporal involvement, however, can be conceptualized in other ways that could provide a more complete understanding of fathers' roles in families and in children's lives. Involvement can be considered in terms of exclusive time with children – that is, the amount of time fathers spend with their children with no other adults or non-siblings present. Although infrequently measured due to a lack of information about who participates in various parent-child and family activities, exclusive involvement could provide family researchers with greater insight into the amount of time fathers spend as a solo parent, relative to their total involvement with their children. Involvement can also be conceptualized from the perspective of the child – that is, the amount of time fathers spend with their child relative to the amount of time the child spends in all activities, with or without other people present (centrality of involvement). Although infrequently measured due to the lack of child-reported data on involvement, examining centrality could provide researchers with a greater understanding of the extent to which the father is a significant presence in children's lives, above and beyond total time spent with the child. Further, both exclusive involvement and centrality may be particularly important in terms of children's development, as previous research suggests that children who view their fathers as an involved

and supportive presence in their lives have significantly greater social competence and fewer depressive symptoms (Dubowitz et al., 2001). Examining exclusive involvement and centrality may also provide family scientists with a more complete understanding of the correlates of father involvement, as previous research suggests that predictors of total and proportional involvement are often unique (Pleck & Masciadrelli, 2004).

Although no studies to date have specifically examined proportional involvement, exclusive involvement, or centrality of involvement among working- and middle-class African American fathers with older children, several previous studies have examined African American fathers' total involvement with older children. In one of the earliest studies of African American father involvement in working- and middle-class families, Cazenave (1979) found that 49% of fathers reported being 'often involved' in helping with homework or taking their child to an appointment, and 85% were 'often involved' in talking to their child about being a father. Additionally, in two related studies of African American adolescents at risk for school dropout, 45% of adolescents living with both biological parents and 23% of adolescents living with a stepparent reported spending seven or more hours per week with their father or stepfather, respectively (Salem et al., 1998), while Zimmerman and colleagues (Zimmerman et al., 1995) found that African American adolescent males living with both biological parents spent an average of 19.52 hours per week with their fathers.

Although the limited studies conducted to date suggest that the majority of African American fathers in two parent families are frequently involved in activities with older children, a number of limitations exist. First, the available studies utilized paternal self-reports (Cazenave, 1979) or were based on single-item indicators of youth-reported father involvement (Salem et al., 1998; Zimmerman, et al., 1995), creating potential concerns about the reliability of these

estimates. Further, these studies only examined total time with youth – previous research suggests that, although total father involvement may decrease as children grow older, proportional involvement relative to mothers may actually increase (e.g., Barnett & Baruch, 1987). Finally, these studies did not consider how paternal time with children might differ as a function of youth age, despite previous research suggesting that father involvement levels are likely to differ across childhood and adolescence (e.g., Lamb, Chuang, & Hwang, 2004). The current study seeks to address these limitations by examining African American father involvement with youth in middle childhood and adolescence in two-parent, working- and middle-class families, using youth reports of daily activities across seven days. This approach allows for a more accurate assessment of father involvement with youth by incorporating same day reports of involvement. It also allows for an examination of paternal total involvement, exclusive involvement, proportional involvement, and centrality of involvement, by incorporating youth reports of both the total amount of time spent in activities and the individuals with whom they participated in these activities.

#### *Paternal Involvement: Multidimensional Sources of Influence*

Previous research suggests that paternal involvement with youth is multiply determined and, further, that fathering may be shaped more by personal and contextual characteristics than mother involvement is, both because the father's parenting role is less culturally defined and because men may have fewer role models to draw upon in defining their particular parenting style (Daly, 1996; Parke, 2002; Pleck, 1997). The following sections review the personal and family circumstances that may shape African American father involvement with youth. Due to the limited research on the correlates of African American father time with youth in middle

childhood and adolescence, however, research on involvement with younger children and with multi-ethnic samples is also included where relevant.

*Father Characteristics.* Fathers' own characteristics, including their education levels, personal beliefs and attitudes, and depressive symptoms, may shape the amount of time African American fathers spend with youth. Previous research suggests that better-educated African American fathers are more involved with younger children (e.g., Ahmeduzzaman & Roopnarine, 1992), and studies of multiethnic samples have found that better-educated fathers are also more involved with older children (Blair et al., 1994; Marsiglio, 1991; Toth & Xu, 1999). Better-educated fathers are likely to have more personal, social, and economic resources to share with their children, and they may also be more aware of the benefits that paternal involvement can have for children's social and academic development (Draper, 1998). Paternal attitudes towards gender and work roles have also been linked to time with children, although such associations have not been examined in studies of African American fathers to date. Previous research on multiethnic samples has found that more traditional attitudes toward gender and work roles, such as the belief that men should be the primary income provider and that women should take care of the home and the family, predict less paternal involvement with children (e.g., Blair, et al.; McBride & Rane, 1997; Marsiglio, Toth & Xu). Likewise, paternal depressive symptoms may result in greater withdrawal from activities with youth. Blair, Wenk, and Hardesty (1994) found in a sample of multiethnic fathers that more depressed fathers were less involved with children. Such associations, however, have not been examined extensively in the father involvement literature, especially among African American fathers and fathers with older children.

*Mother Characteristics.* As noted by Pleck and Masciadrelli (2004), in order to assess the unique contribution of paternal attitudes toward gender and work roles, one must also consider



the role that maternal beliefs and attitudes play in shaping paternal time with children. Consistent with a “gatekeeping” perspective on father involvement in family life (e.g., Allen & Hawkins, 1999), previous research suggests that maternal beliefs about appropriate norms and roles for fathers may shape paternal time with youth. Specifically, in a sample of middle-class White families, more traditional maternal attitudes toward paternal roles in the family predicted a lower proportion of father time with school-age children relative to mothers (Barnett & Baruch, 1987), although other multi-ethnic studies have not found this association (e.g., Marsiglio, 1991; NICHD ECCRN, 2000; Yeung et al., 2001). To date, less is known about whether and how maternal attitudes predict fathers’ time with youth in African American families.

*Child Characteristics.* As noted by Belsky (1984), numerous child characteristics may shape fathers’ involvement with youth. Research on multi-ethnic samples of fathers generally suggests that fathers are more involved with sons than daughters, and further, that these gender-typed differences may be more pronounced in older children (for a summary, see Pleck, 1997). These gender differences may reflect the fact that fathers identify more with, or are more interested in, male children, that male children elicit greater levels of involvement from fathers, or that mothers engage in more gatekeeping behaviors with daughters (Barnett & Baruch, 1987; Crouter, Head, Bumpus, & McHale, 2001; Marsiglio, 1991). Patterns of involvement by child age show a mixed pattern, as fathers tend to spend less absolute time with older children, but their proportion of involvement relative to mothers actually increases, as total maternal involvement with older children declines more rapidly, on average, than paternal involvement (Pleck; Pleck & Masciadrelli, 2004). Finally, fathers may be more involved with children to whom they are biologically related; previous research suggests that stepfathers may have difficulty entering a family system with preexisting relationships and norms, thus limiting the

extent to which they are involved with their stepchildren (Cherlin, 1978). Several multi-ethnic, nationally-representative studies have found that fathers are significantly less involved with stepchildren than with biologically-related children (Blair et al., 1994; Marsiglio, 1991).

*Parental Partner Relationship Quality.* Both ecological and family systems perspectives on parenting propose that the quality of a parent's relationship with their partner, including partner support, communication, and satisfaction, predict paternal involvement with youth, although many studies of involvement in African American families and families with older children fail to examine these associations (e.g., Fagan, 1998; Hofferth, 2003; Marsiglio, 1991; Toth & Xu, 1999; Yeung, et al., 2001). Research suggests that paternal parenting behaviors may be impacted more by partner relationship quality than mother parenting is, particularly in dual-earner families (Crouter, Perry-Jenkins, Huston, & McHale, 1987; Parke, 2002). Consistent with this hypothesis, previous work on several multiethnic, nationally-representative samples of fathers found that lower marital satisfaction and higher spousal conflict predicted significantly less father involvement with youth (Blair et al., 1994; Harris, Furstenburg, & Marmer, 1998; McBride, Schoppe, Ho, & Rane, 2004). Further, in their study of father involvement in working- and middle-class African American families with preschoolers, Ahmeduzzaman and Roopnarine (1992) found that fathers who reported greater communication and commitment within their family relationships, including the marital relationship, were significantly more involved with their children. Fathers in more committed and supportive relationships may be more invested in multiple aspects of family life, including their children, and may receive more support and encouragement to be involved with their children from mothers. In contrast, in less committed and more conflictual partner relationships, fathers may withdraw more from family life and mothers may be less supportive of father involvement with children (Grych, 2002). Although

these associations have yet to be examined in a sample of middle-class African American fathers with older children, evidence suggests that greater satisfaction and support within the partner relationship may predict greater father involvement with youth.

*Parental Work Characteristics.* Consistent with an ecological perspective on parenting (e.g., Belsky, 1984), factors outside the immediate home environment, including parental work experiences, may also impact fathers' involvement with youth. African American fathers who work longer hours may be less involved with youth because time in the workplace limits the amount of time they are able spend with their children. Recent studies of multi-ethnic families support this hypothesis; fathers who spent more time in the workplace were less involved with their children overall (e.g., Milkie, Mattingly, Nomaguchi, Bianchi, & Robinson, 2004; NICHD ECCRN, 2000; Yeung, et al., 2001). Additionally, maternal work hours may *promote* greater father involvement, as research consistently suggests that both the total amount of time fathers spend with children and the proportion of time fathers spend with children, relative to mothers, is greater when mothers work longer hours (Barnett & Baruch, 1987; NICHD ECCRN, 2000). Similar trends have been observed among African American fathers specifically, with Fagan (1998) finding that father involvement with preschoolers in low-income families increased as maternal work hours increased. It remains unclear, however, whether similar associations exist for African American fathers with older children.

*Socioeconomic Characteristics.* Previous research has linked family socioeconomic resources to African American father involvement, as well as to paternal involvement in general. Using a nationally representative sample of families with children ages 5-18, Blair, Wenk, and Hardesty (1994) found that greater total family income predicted more father engagement with children. Further, Cazenave (1979) found that higher income was associated with greater

involvement for African American fathers with adolescents. Fathers with less economic security may feel a greater need to invest in the worker role in order to provide for the family, reducing time available to spend with children. Mothers may also be less supportive of involvement when fathers contribute less to the family financially. Supporting this conclusion, Cazenave noted that, "... in many cases, the ability to provide may determine both whether the father role will be executed at all and the degree of expressive paternal involvement" (p. 591). Several recent studies of African American fathers found that greater family income predicted greater paternal engagement with preschool age children (Ahmeduzzaman & Roopnarine, 1992; Fagan, 1998). Although not all studies find associations between economic resources and father involvement (Pleck, 1997), in general these studies suggest that economic resources may be particularly salient in predicting time with youth among African American fathers.

### *Research Questions*

Guided by ecological and family systems perspectives on the determinants of parenting, as well as previous research examining the effects of personal, child, and contextual characteristics on father involvement, the following research questions were examined:

1. How much time do African American fathers living in two-parent, working- and middle-class families spend with their children in middle-childhood and adolescence?
2. How do parent, child, and contextual characteristics predict father involvement with youth in these families?

### Method

#### *Participants*

The data for the current study came from the first phase of a longitudinal study examining family processes and gender development in two-parent working- and middle-class

African American families living in two contiguous urban areas in the Northeastern United States. Families eligible for participation 1) self-identified as Black or African American, 2) had a mother- and a father-figure living in the home, 3) had a child in grades 4-7, and 4) had at least one older sibling present. Families were recruited using two sampling strategies. First, African Americans living in the targeted areas were hired to recruit eligible families for participation using a variety of strategies, including distributing flyers and holding information sessions at local community centers (e.g., churches, schools, etc.). A total of 116 participating families were identified using this strategy. Second, a marketing firm was used to obtain information on African American families living in the targeted areas with children in the school grade levels of interest. A letter containing information about the project was mailed to these households – families interested in participating contacted the project office via a toll free number or postcard. In total, 1,665 families living in these areas received a letter regarding the project and 142 families contacted the project office. Of those families, 93 were eligible for participation and 86 later participated, bringing the total study sample to 202 families. The percentage of eligible families participating in the current study could not be calculated because the marketing firm did not have information on family structure or the presence of older siblings in the home. As a result, many families received recruitment letters even though they were not eligible to participate. Participating families, however, did not differ significantly in background characteristics across the two recruitment strategies (McHale et al., 2006).

The current sample focused on dual-earner families with an employed, African American parent living in the home who was the biological father or stepfather of both youth participating in the study. We limited our sample to dual-earner families because previous research suggests that processes associated with father involvement may differ in dual-earner families relative to

single-earner families (e.g., Barnett & Baruch, 1987; Crouter et al., 1987) and families where the father is not employed (e.g., Pleck, 1997). Of the 202 families that participated in the first phase of the study, 160 (79%) families contained an employed, African American biological father or stepfather. The mother was employed in 135 (84%) of these families. Seven (5%) of these families were missing data for one of more covariates included in the current analyses. Because the overall amount of missing data was low (less than two percent of all data), these missing values were imputed using single imputation (Schafer & Graham, 2002). Thus, the current analyses included 135 families

As shown in Table 3-1, fathers had an average education equivalent to some college, but no degree, and were employed 50 hours per week. Mothers worked 40 hours per week on average. Youth were slightly more likely to be female (53%), and were 12 years old on average. The majority of youth (86.3%) were biologically related to the father.

### *Procedure*

Two different data collection procedures were implemented. First, trained interviewers, the majority of whom were African American, conducted in-home interviews with mothers, fathers, and youth. Interviews lasted approximately 2-3 hours, and consisted of a series of questionnaires focusing on demographic characteristics, personal beliefs and attitudes, psychological adjustment, family relationships, parenting, and work. Informed consent was obtained prior to the interviews and families received a \$200 honorarium.

After completing the home interview, families were contacted by telephone on seven evenings (five weekday evenings, two weekend evenings) over a 2-4 week period. Youth were interviewed on all seven days; mothers and fathers were interviewed on four evenings (three weekday evenings, one weekend evening). During each telephone call, family members were

asked whether they had participated in each of 84 activities, and if so, with whom and for how long. These activities spanned a variety of areas including household tasks (e.g., wash dishes), entertainment / leisure (e.g., watch television), personal / family time (e.g., do homework, eat a family meal), and athletic activities (e.g., play / practice sports). Because the current study was focused primarily on family relationships, family members were asked to report on only those activities that took place outside of school or work. When applicable, family members were asked to include travel time when estimating the amount of time spent in an activity (e.g., eat a meal at a restaurant; see Appendix for a complete list of all activities).

### *Measures*

*Demographic characteristics.* Background information collected on family members included age, race, education level, family income (sum of father income, mother income, and other, nonwage income), parents' weekly work hours, and parents' biological relationship to their children. A log transformation was applied to family income to correct for nonnormality.

*Parental partner relationship satisfaction.* Mothers' and fathers' relationship satisfaction with their partner was assessed using an eight-item version of the Couple Relationship Domains Questionnaire (Huston, McHale, & Crouter, 1986). Parents were asked to rate their level of satisfaction with a variety of aspects of their relationship (e.g., communication, division of housework and child care, support as a parent, and decisions making) on a 9-point scale ranging from *extremely dissatisfied* to *extremely satisfied*. Higher scores reflect greater satisfaction with the partner relationship ( $\alpha = .88$  and  $.89$  for mothers and fathers, respectively).

*Work role attitudes.* Four items from the Status Norms subscale of the Male Role Norms Questionnaire (Thompson & Pleck, 1986) were used to assess mothers' and fathers' beliefs about the importance of paternal investment in the worker role (e.g., "Success in his work has to be a

man's central goal in life"). Responses were rated on a seven point scale ranging from *strongly disagree* to *strongly agree*; higher scores reflect a greater belief in the importance of paternal investment in the worker role ( $\alpha = .75$  and  $.71$  for mothers and fathers, respectively).

*Gender role attitudes.* Mothers and fathers completed the 13-item Gender-Based Attitudes Toward Marital Roles subscale of the Gender Role Attitudes Questionnaire (Hoffman & Kloska, 1995), assessing gender-based attitudes toward roles within the partner relationship (e.g., "For a woman, taking care of the children is the main thing but for a man, his job is"). Responses were rated on a four point scale ranging from *very untrue* to *very true*; higher scores reflect more traditional gender-role attitudes ( $\alpha = .85$  and  $.85$  for mothers and fathers, respectively).

*Depressive symptoms.* Fathers completed a 12-item version of the Center for Epidemiological Studies Depression Scale (CES-D; Devins & Orme, 1985), assessing experiences of a variety of depressive symptoms over the past seven days (e.g., "I felt sad"). Items were rated on a 4-point scale ranging from *rarely* to *most of the time*; higher scores reflect greater depressive symptoms ( $\alpha = .77$ ).

*Father involvement with youth.* Four distinct measures of paternal involvement were created using youth reports of time spent in daily activities. Youth reports were used to avoid issues of shared method variance that would arise when using father reports of involvement because many of the correlates in the current study were based on fathers' reports, and because seven days of data were available from youth (compared to four days for parents). *Total father involvement* was computed by summing across the seven days the total time youth reported spending in any of the 84 activities with fathers (other individuals could be present as well). *Father exclusive involvement* was computed by summing across the seven days the total time youth reported spending in any of the 84 activities with fathers in which no other adults or non-



siblings were present (other siblings were allowed to be present to avoid biases against fathers in families with more children). The *proportion of father involvement relative to total parent time*, was constructed by dividing total father inclusive time with youth by total parent inclusive time with youth. Fathers were given half credit when mothers and fathers engaged in activities with youth together. The formula for the proportion of father inclusive involvement was:

$$\frac{\text{Father's Total Inclusive Time} - \frac{1}{2} \text{ of Father and Mother Joint Inclusive Time}}{\text{Father Total Inclusive Time} + \text{Mother Total Inclusive Time} - \text{Mother and Father Joint Inclusive Time}}$$

Finally, the *centrality of father involvement* with youth was calculated by dividing the total time fathers spent with youth by the total time youth reported spending in all activities with or without companions in those activities. Thus, the centrality ratio score reflects the percentage of time that fathers were involved in all activities that youth reported participating in across the seven days.

#### *Analytic Strategy*

Bivariate analyses were used to examine correlations between father, mother, youth, and demographic characteristics. Multilevel models (MLM) were then used to examine whether individual, family, and demographic characteristics predicted father involvement with youth. The models included characteristics that were related to one or more dimensions of involvement at the bivariate level. Multilevel modeling was implemented to account for the nested structure of the data (two youth within each family).

## Results

### *African American Father Involvement with Youth: A Descriptive Account*

Mean levels for the four types of father involvement examined in the current study are presented in Table 3-2. On average, fathers spent 387 minutes (6.45 hours) per week in activities with youth, although there was considerable variability in total involvement across fathers ( $SD = 275.72$  minutes or 4.59 hours per week). Fathers also spent slightly more than 2 hours per week

(125.92 minutes) in exclusive time with youth in which no other adults or non-siblings were present, although, much like inclusive involvement, there was a high degree of variability in fathers' exclusive time across the sample ( $SD = 129.51$  minutes or 2.16 hours per week). Fathers spent less time with youth relative to mothers, as fathers' proportional involvement was 35.73% of total parent time ( $SD = 19.73$ ). Finally, considering the centrality of fathers in the lives of their children, youth reported that approximately one-fifth of time they spent in all activities across the seven days, on average, involved activities with their father ( $M = 17.03\%$ ,  $SD = 12.47$ ).

#### *Correlates of African American Father Involvement with Youth*

Intercorrelations among the variables of interest are presented in Table 3-3. Associations, in general, were similar across the four dimensions of involvement. Youth reports of fathers' proportional involvement were correlated with reports of total involvement ( $r = .58$ ,  $p < .01$ ), exclusive involvement ( $r = .55$ ,  $p < .01$ ), and centrality of involvement ( $r = .58$ ,  $p < .01$ ), while youth reports of total involvement were highly correlated with reports of exclusive involvement ( $r = .61$ ,  $p < .01$ ) and centrality of involvement ( $r = .92$ ,  $p < .01$ ). Fathers' proportion of total parent time was significantly greater with older youth, but fathers were also less central in the lives of older children. Fathers were also more involved with boys than girls, on average, across all four measures of involvement. More educated fathers and fathers who were less invested in the worker role were significantly more involved with youth across all four measures of involvement. Fathers who worked more hours per week also spent less exclusive time with children. When mothers held more traditional attitudes toward the male worker role, fathers spent less total time with youth and were less central in their lives. When mothers reported greater partner relationship satisfaction, however, fathers were significantly more involved with youth. Finally, total family income, paternal gender role attitudes and partner relationship

satisfaction, and maternal gender role attitudes and work hours, were unrelated to all four measures of paternal involvement – as a result, they were excluded from the multilevel analyses.

Tables 3-4 and 3-5 present the results of the multilevel models estimated separately for father total involvement, exclusive involvement, proportional involvement, and centrality of involvement. Fathers were more involved with sons than daughters on all four indicators of father involvement. Youth age was also related to father involvement. Specifically, fathers' proportion of time with youth, relative to total parenting time (proportional involvement), was greater for older children, but the percentage of time fathers spent with youth, relative to time youth spent in all activities (centrality of involvement), was greater for younger children. Fathers were also more central in the lives of biological children than stepchildren, although this association only approached significance.

With regard to paternal characteristics, fathers' male work role attitudes were significantly associated with all four forms of involvement – fathers who reported being more invested in the worker role were significantly less involved with youth. Better-educated fathers spent more total time with youth, as well as a greater percentage of time with youth, relative to total parent time (proportional involvement), and to total youth time in all activities (centrality of involvement), although these associations only approached significance. Fathers who worked more hours per week were also significantly less central in the lives of youth. Paternal depressive symptoms, however, were unrelated to all four measures of involvement. Examining maternal characteristics, greater maternal partner relationship satisfaction was associated with fathers spending a greater percentage of time with youth, relative to total parent time (proportional involvement), as well as fathers being more central in the lives of their children. Fathers also

spent more total time with youth when mothers were more satisfied with the partner relationship, although this association only approached significance.

### Discussion

The current study sought to extend existing research on father involvement by examining the levels and correlates of fathers' time with youth in middle childhood and adolescence in two-parent, working- and middle-class African American families. Although the emphasis in previous research on low-income, urban families has resulted in the stereotyping of African American men as being relatively uninvolved in the lives of their children (Roopnarine, 2004), the current results suggest that African American fathers in working- and middle-class families were involved with their children, although there was considerable variability in involvement across the sample. Further, results from MLM analyses suggest that father, mother, and child characteristics predicted paternal involvement with youth.

African American youth in the current study reported spending approximately 6.5 hours per week with their fathers, similar to previous estimates of total father involvement by Pleck (1997), who reported that, across multiple studies, fathers spent an average of 0.5 to 1.0 hours per day with adolescents on weekdays, as well as Salem and colleagues (Salem et al., 1998), who reported that 45% of low-income and working-class African American biological fathers spent 7 or more hours per week with adolescents. Additionally, fathers' proportional involvement in the current study was 36% of total parent time, similar to previous findings based on White, middle-class samples of fathers (39.5% of total parent time; Barnett & Baruch, 1987). There was considerable variability in involvement however, as fathers' total time with youth in the current sample ranged from no time at all to over 23 hours per week. These findings also suggest that, although the majority of African American fathers in the current sample were actively involved

in the lives of their children, the division of time between mothers and fathers was still unequal. Further, while the estimates of total involvement were considerably lower than previous reports of African American father involvement with adolescents reported by Zimmerman and colleagues (19.52 hours per week; Zimmerman et al., 1995), this study differed in several important ways. Most notably, the previous study included a number of unemployed fathers (43% of the sample) and was based on a single adolescent report of global involvement across an entire week. In contrast, the current study consisted entirely of employed fathers and incorporated same day youth reports of involvement in multiple activities across seven days.

Examining paternal exclusive involvement and centrality of involvement provides greater insight into the ways and extent to which working- and middle-class African American fathers are involved with youth, although the high intercorrelations between total involvement and centrality of involvement suggest that these constructs, while conceptually distinct, are in fact highly related. While fathers spent less time with youth than mothers, on average, results suggest a significant portion of paternal involvement was time spent alone with youth. Specifically, one-third of time spent with youth (32.5%), on average, was time in which no other adults or non-siblings were present. Thus, while fathers' total involvement was somewhat limited at less than one hour per day, it appears that they may attempt to compensate, in part, for this limited total time by spending more exclusive time with their children. Further, it should be noted that fathers' total time with youth represented almost 20% of time youth spent in all activities outside of school, suggesting that many fathers are a significant presence in the lives of their children.

Child characteristics were some of the strongest and most consistent predictors of father involvement in the current study. Gender differences were particularly pronounced, with fathers spending almost 1.5 hours of total time, and 1 hour of exclusive time, more with sons than

daughters each week on average. It is possible that fathers in the current sample felt a greater responsibility to be an active presence in the lives of their sons, as previous research on working- and middle-class African American families has suggested that fathers are more involved in socializing sons relative to daughters (McHale, et al., 2006). Child age was also associated with paternal time with youth – fathers’ proportion of time with youth, relative to total parent time, was greater for older children, but fathers’ proportion of time with youth, relative to total youth time in all activities (centrality of involvement), was greater for younger children. This provides support for Pleck’s (1997) conclusion that, although fathers are less involved with older children, their total involvement decreases less rapidly than mothers’ total involvement with age.

Not surprisingly, fathers’ own characteristics were also associated with the amount of time they spent with youth. In particular, greater paternal investment in the worker role was associated with significantly lower involvement across all four dimensions examined in the current study. As noted by Cazenave (1979) and Roopnarine (2004), the economic provider role is highly salient to middle-class African American fathers. Rather than failing to recognize the importance of paternal involvement in children’s lives, however, it is possible that fathers in the current sample who were more invested in the worker role felt that providing for their family was a primary means of supporting their children’s positive development, as greater economic resources are associated with higher quality home environments, neighborhoods, and educational opportunities (McLoyd, 1998). Working longer hours was also associated with less paternal involvement, although only for fathers’ exclusive time with children. Although consistent with Pleck (1997), who notes that work hours are generally unrelated to fathers’ total time with children, the current results suggest that longer work hours do limit the amount of time fathers are able to spend with youth in which no other adults or non-siblings are present. Interestingly,

paternal gender role attitudes were unrelated to time with youth. Although inconsistent with previous research (e.g., Blair et al., 1994; McBride & Rane, 1997), the current findings suggest that, for working- and middle-class African American fathers, other personal beliefs, such as investment in the worker role, are more central in predicting involvement than ideas about the division of roles between parents. Depressive symptoms were also unrelated to fathers' involvement with youth, contrary to findings in a previous nationally representative sample of fathers (Blair, et al.). It is possible that depressive symptoms may have a greater impact parent-child relationship quality (e.g., Kane & Garber, 2004), than the amount of time fathers spend with children, although further research is needed to explore this possibility.

Relative to father and child characteristics, fewer associations were observed between maternal characteristics and father involvement with youth. Greater maternal partner relationship satisfaction predicted greater paternal involvement, relative to total parenting time (proportional involvement), as well as greater paternal involvement, relative to total youth activities (centrality of involvement). It is possible that when mothers are more satisfied with fathers' fulfillment of various roles as a partner, they actively encourage fathers to be more involved in the parenting role (e.g., Blair et al., 1994). However, it should be noted that it is also possible that greater paternal involvement in parenting roles results in greater maternal partner relationship satisfaction. Longitudinal study designs incorporating measures of relationship satisfaction and involvement could provide greater insight into how these processes unfold over time. Additional research is also needed to examine whether other maternal characteristics not measured in the current study, such as maternal gatekeeping behaviors, predict father involvement with youth.

Several limitations to the study should be noted. First, the current study was cross-sectional – future studies incorporating experimental and longitudinal designs are needed to

provide insight into the specific direction of effects between the covariates examined and father involvement, or the ways in which father, mother, child, and family characteristics may predict changes in father involvement over time. Additionally, the current sample was somewhat small ( $n = 135$  families) and limited to families in two regions of the northeast United States. Thus, while the goal of the current study was to examine fathering among working- and middle-class, two parent African American families, further research is needed to determine whether the current findings generalize to nationally-representative samples of working- and middle-class African American families. The current investigation only considered measures of fathers' time with youth as reported by the child – involvement has also been conceptualized in other ways, however, such as their relative levels of accessibility or responsibility (e.g., Lamb, Pleck, Charnov, & Levine, 1987), that were not measured in the current study. Finally, although a number of covariates linked in previous research to fathers' time with children were examined, it is possible that involvement could be accounted for by other factors not measured in the current study, such as father-child relationship quality, paternal informal workplace supports (e.g., flexibility), or maternal gatekeeping behaviors.

The current study has a number of strengths, including an examination of the levels and correlates of father involvement in two-parent, working- and middle-class African American families, a group for which “there is a paucity of data” currently (Roopnarine, 2004, p. 65). Further, the present investigation incorporated same day youth reports of involvement with fathers across multiple days and activities, presumably allowing for a more accurate assessment of fathers' time with youth. Additionally, by incorporating youth activity reports that included a list of the specific participants in each activity, the current study was able to expand



conceptualizations of paternal involvement to include an examination of fathers' exclusive time with youth, as well as the centrality of fathers in the lives of their children.

In sum, these findings suggest that working- and middle-class African American fathers are involved in the lives of youth at levels comparable to national estimates of paternal involvement, and further, that approximately one-third of this time is exclusive time with youth. Results also suggest that multiple father and child characteristics, including paternal worker role attitudes and work hours, as well as child age and gender, predict differential father time with youth. In light of the observed associations between worker role attitudes, work hours and paternal involvement, future research is needed examining programs and policies designed to promote greater workplace flexibility, specifically those that would allow telework or greater employee control over work hours. Such policies may allow fathers to be more involved with youth while still maintaining their investment in the worker role, which may have substantial implications for youth development. Programs designed to help promote greater family role flexibility among African American fathers may also provide multiple benefits to families, as changing fathers' attitudes toward work and coparenting may serve to both increase father involvement with youth, as well as potentially reduce maternal stress in the parenting role (Bowman & Foreman, 1997). Investigating strategies to promote greater involvement among African American fathers is a key area for future fatherhood research.

Table 3-1

*Means, Standard Deviations, and Percentages for Background Characteristics of the Sample**(n = 270 youth in 135 families).*

Variables	<i>M</i>	<i>SD</i>	Range	%
Youth age	12.23	2.58	7.85 – 22.48	
Youth gender				
Female ( <i>n</i> = 143)				52.96
Male ( <i>n</i> = 127)				47.04
Youth relationship to father				
Nonbiological child ( <i>n</i> = 37)				13.70
Biological child ( <i>n</i> = 233)				86.30
Father education	14.67	2.16	9.00 – 19.00	
Father work role attitudes	17.66	5.08	4.00 – 28.00	
Father gender role attitudes	11.76	3.74	0.00 – 18.00	
Father total work hours	50.62	16.89	10.00 – 99.00	
Father depressive symptoms	19.15	5.16	12.00 – 35.00	
Mother work role attitudes	15.78	5.43	4.00 – 28.00	
Mother gender role attitudes	13.12	3.68	4.00 – 18.00	
Mother total work hours	40.65	13.78	5.00 – 79.00	
Family income	\$101,131	\$57,673	\$3,000 - \$525,000	

Table 3-2

*Means and Standard Deviations for Estimates of African American Father Involvement with Youth (n = 270 youth in 135 families).*

Variables	<i>M</i>	<i>SD</i>	Range
Father total involvement (minutes per week)	386.55	275.72	0.00 – 1383.00
Father exclusive involvement (minutes per week)	125.92	129.51	0.00 – 728.00
Father proportional involvement (%)	35.73	19.73	0 – 91.80
Father centrality of involvement (%)	17.03	12.47	0 – 58.01

*Note:* *Father total involvement* was constructed by summing the total time fathers spent in all activities with youth across seven days. *Father exclusive involvement* was constructed by summing the total time fathers spent alone with youth and their siblings across seven days, with no additional children or adults present. *Father proportional involvement* was constructed by dividing total father inclusive time with youth across seven days by total parent inclusive time with youth, with fathers receiving half credit for activities mothers and fathers engaged in with youth together. *Father centrality of involvement* was constructed by dividing the total time fathers spent with youth across seven days by the total time youth reported spending in all activities with all individuals.

Table 3-3

*Correlations of Individual and Family Characteristics and Father Involvement with Youth (n = 270 youth in 135 families).*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Youth age	—																
2. Youth gender <sup>a</sup>	.06	—															
3. Youth relationship to father <sup>b</sup>	.01	-.01	—														
4. Father education	-.01	.05	.13*	—													
5. Father partner relationship satisfaction	-.01	-.06	.10	-.08	—												
6. Father male work role attitudes	-.01	-.04	-.02	-.29**	.04	—											
7. Father gender role attitudes	.09	.16**	-.03	.08	.20**	-.24**	—										
8. Father depressive symptoms	-.07	-.03	-.06	-.24**	-.19**	.14*	-.16**	—									
9. Father total work hours	.04	-.01	.07	.20**	-.24**	-.06	-.19**	-.16**	—								
10. Mother partner relationship satisfaction	-.04	-.01	.02	.03	.41**	-.09	.07	-.12†	-.03	—							
11. Mother male work role attitudes	.01	-.07	.03	-.22**	.05	.28**	-.12*	.09	-.11†	-.06	—						
12. Mother gender role attitudes	.01	.08	-.05	.03	.04	.02	.30**	.01	-.10†	-.07	-.07	—					
13. Mother total work hours	.04	-.10†	.02	.02	.01	.06	-.10	-.09	.01	.14*	.07	.16**	—				
14. Total family income	.04	.04	.01	.54**	.04	-.23**	.03	-.21**	.17**	.04	-.16*	.14*	.24**	—			
15. Father total involvement	-.04	.12†	.12†	.25**	.01	-.29**	-.04	-.13*	.02	.17**	-.16**	-.11†	.01	.10†	—		
16. Father exclusive involvement	.02	.21**	.11†	.14*	.03	-.21**	.09	-.08	-.15*	.13*	.04	.07	-.02	.03	.61**	—	
17. Father proportional involvement	.18**	.27**	.08	.21**	.03	-.25**	.09	-.10	-.01	.15*	-.11†	-.04	.05	.12†	.58**	.55**	—
18. Father centrality of involvement	-.14*	.15*	.14*	.24**	.06	-.27**	-.01	-.12†	-.04	.20**	-.15*	-.11†	-.03	.09	.92**	.58**	.59**

<sup>a</sup>Youth gender: 0 = female, 1 = male. <sup>b</sup>Youth relationship to father: 0 = nonbiological child, 1 = biological child.

Note: Father total involvement was constructed by summing the total time fathers spent in all activities with youth across seven days. Father exclusive involvement was constructed by summing the total time fathers spent alone with youth and their siblings across seven days, with no additional children or adults present. Father proportional involvement was constructed by dividing total father inclusive time with youth across seven days by total parent inclusive time with youth, with fathers receiving half credit for activities mothers and fathers engaged in with youth together. Father centrality of involvement was constructed by dividing the total time fathers spent with youth across seven days by the total time youth reported spending in all activities with all individuals.

†p < .10. \*p < .05. \*\*p < .01.

Table 3-4

*Individual and Family Characteristics Predicting African American Fathers' Inclusive and Exclusive Involvement with Youth (n = 270 youth in 135 families).*

Variable	Total Involvement (Minutes)			Exclusive Involvement (Minutes)		
	$\gamma$	<i>SE</i>	<i>t</i> -ratio	$\gamma$	<i>SE</i>	<i>t</i> -ratio
Intercept	301.17	47.17	6.39**	71.47	23.58	3.03**
Youth characteristics						
Age	-5.64	4.38	-1.29	-1.11	2.62	-0.43
Gender <sup>a</sup>	83.38	24.31	3.43**	54.71	13.92	3.93**
Relationship to father <sup>b</sup>	53.48	47.28	1.13	33.29	24.03	1.39
Father characteristics						
Education	20.40	10.88	1.88 <sup>†</sup>	6.76	4.73	1.43
Male work role attitudes	-11.40	4.50	-2.56*	-5.11	1.93	-2.64**
Depressive symptoms	-2.21	4.19	-0.53	-0.96	1.82	-0.53
Total work hours	-0.70	1.28	-0.55	-1.42	0.56	-2.55*
Mother characteristics						
Relationship satisfaction	2.79	1.65	1.68 <sup>†</sup>	1.02	0.72	1.43
Male work role attitudes	-2.22	4.16	-0.53	2.78	1.81	1.58

<sup>a</sup>Youth gender: 0 = female, 1 = male. <sup>b</sup>Youth relationship to father: 0 = nonbiological child, 1 = biological child.

Note: Father total involvement was constructed by summing the total time fathers spent in all activities with youth across seven days. Father exclusive involvement was constructed by summing the total time fathers spent alone with youth and their siblings across seven days, with no additional children or adults present.

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

Table 3-5

*Individual and Family Characteristics Predicting African American Fathers' Proportion**Involvement and Centrality of Involvement with Youth (n = 270 youth in 135 families).*

Variable	Proportional Involvement (%)			Centrality of Involvement (%)		
	$\gamma$	<i>SE</i>	<i>t</i> -ratio	$\gamma$	<i>SE</i>	<i>t</i> -ratio
Intercept	27.28	3.50	7.79**	11.63	2.11	5.50**
Youth characteristics						
Age	1.24	0.40	3.10**	-0.82	0.20	-4.08**
Gender <sup>a</sup>	11.38	2.12	5.38**	4.85	1.10	4.39**
Relationship to father <sup>b</sup>	3.99	3.58	1.10	3.62	2.12	1.70 <sup>†</sup>
Father characteristics						
Education	1.26	0.69	1.83 <sup>†</sup>	0.93	0.48	1.94 <sup>†</sup>
Male work role attitudes	-0.74	0.28	-2.61*	-0.45	0.20	-2.31*
Depressive symptoms	-0.03	0.27	-0.09	-0.10	0.18	-0.52
Total work hours	-0.06	0.08	-0.78	-0.08	0.06	-1.38
Mother characteristics						
Relationship satisfaction	0.21	0.10	1.99*	0.15	0.07	2.05*
Male work role attitudes	-0.05	0.26	-0.18	-0.09	0.18	-0.49

<sup>a</sup>Youth gender: 0 = female, 1 = male. <sup>b</sup>Youth relationship to father: 0 = nonbiological child, 1 = biological child.

Note: Father proportional involvement was constructed by dividing total father inclusive time with youth across seven days by total parent inclusive time with youth, with fathers receiving half credit for activities mothers and fathers engaged in with youth together.

Father centrality of involvement was constructed by dividing the total time fathers spent with youth across seven days by the total time youth reported spending in all activities with all individuals.

<sup>†</sup> $p < .10$ . \*  $p < .05$ . \*\* $p < .01$ .

## Chapter 4

### Paternal Family-to-Work Spillover and Well-Being: A Person-Oriented Perspective

Basic and applied family scientists have become increasingly interested in the ways in which work and family domains intersect, including the implications that spillover between work and family domains has for individual well-being and workplace functioning (e.g., Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Perry-Jenkins, Repetti, & Crouter, 2000). This growing interest has been driven, in part, by a number of social and attitudinal changes over the past several decades, including the dramatic rise in the number of mothers with young children in the labor force (U.S. Department of Labor, 2006) and the increase in fathers' involvement in day-to-day parenting and family responsibilities (e.g., Pleck, 1997; Pleck & Masciadrelli, 2004). Scientists examining the implications of these changing family roles for fathers as individuals have examined the ways in which work experiences may serve as a source of stress, reducing the resources fathers have to devote to family life (see Kossek & Ozeki, 1998 for a review). Recent studies, however, suggest that 1) spillover between work and family domains is a reciprocal process; family experiences have the ability to shape resources fathers devote to the workplace and 2) spillover across domains can be both positive and negative (e.g., Crouter, 1984; Grzywacz & Marks, 2000). These studies are consistent with both role stress (e.g., Greenhaus & Beutell, 1985) and role enhancement (Marks, 1977) theories, which hold that experiences within the home may reduce (role stress) or enhance (role enhancement) the resources fathers have available to devote to various aspects of their lives, including the workplace.

Despite a growing number of studies examining correlates and outcomes associated with both positive and negative work and family spillover, several notable limitations exist. First, the

majority of studies have relied on industry-specific samples (e.g., Burke, 1988; Franche et al., 2005) or national samples of working adults across all ages and family contexts (e.g., Grzywacz, 2000; Grzywacz & Marks, 2000; Voydanoff, 2005). Little is known about the antecedents and consequences of work and family spillover for fathers with young children living in nonmetropolitan communities. This is an important limitation, as the presence of young children in the home is likely to increase the likelihood of fathers experiencing work and family spillover (e.g., Greenhaus & Beutell, 1985), and rural families are more likely than urban families to have limited resources and supports (e.g., Dill, 2001), potentially increasing paternal risk for experiences of spillover across work and family domains. Second, although multiple studies conclude that spillover occurs not only from work to family, but also from family to work (e.g., Crouter, 1984, Grzywacz & Marks, 2000), less is known about the predictors and implications of family-to-work spillover for fathers. This is an important limitation, as family-to-work spillover may be associated multiple negative individual and job-related outcomes, including greater job dissatisfaction and psychological distress (see Frone, 2003 for a review). Finally, researchers examining family-to-work spillover to date have relied exclusively on variable-oriented research approaches, measuring positive and negative family-to-work spillover as discrete variables and studying their associations with other variables, typically using some form of linear modeling (e.g., regression, structural equation modeling). Previous research, however, has found that the dimensions of positive and negative family-to-work spillover are largely uncorrelated (e.g., Grzywacz, 2000), suggesting that unique subgroups of individuals who experience various combinations of positive and negative spillover may exist. Thus, a person-oriented approach, which focuses on the individual as an integrated whole and identifies subgroups of individuals who share similar profiles across multiple indicators (e.g., cluster analysis, latent profile



analysis), may offer unique insight into patterns and predictors of family-to-work spillover by examining it as a holistic process (Bergman & Trost, 2006).

The current study sought to expand upon previous research by examining whether person-oriented profiles of positive and negative family-to-work spillover could be identified in an ethnically-diverse sample of fathers with young children living in predominantly low-income and working-class, nonmetropolitan communities. Consistent with role stress (e.g., Greenhaus & Beutell, 1985) and role enhancement (Marks, 1977) theories, as well as an ecological perspective on work and family relationships (e.g., Bronfenbrenner & Crouter, 1982), we also examined whether and how multiple individual and family characteristics were associated with profiles of paternal family-to-work spillover. Finally, as previous research has suggested that family-to-work spillover predicts individual well-being, we examined associations between patterns of family-to-work spillover and fathers' depressive symptoms and job satisfaction.

#### *A Person-Oriented Approach to Family-to-Work Spillover*

Variable-oriented approaches examining family-to-work spillover have been invaluable in advancing our understanding of work-family processes, as these approaches have identified positive and negative family-to-work spillover as unique constructs and modeled predictors and outcomes associated with family-to-work spillover. Such approaches, however, do not examine family-to-work spillover as a holistic process, exploring how subgroups of individuals may experience different patterns of positive and negative spillover. As noted in several studies by Grzywacz and colleagues (e.g., Grzywacz, 2000; Grzywacz & Marks, 2000), dimensions of positive and negative spillover are statistically orthogonal; thus, it is possible both that individuals may experience differing patterns of positive and negative family-to-work spillover, and that these patterns may have unique correlates and consequences for individual well-being.

Previous research supports this possibility, as Crouter (1984) found in semi-structured interviews with factory workers that employees reported experiencing varying levels of both positive and negative family-to-work spillover. This suggests that our understanding of family-to-work spillover may be expanded through an examination of subgroups of *different individuals* who experience various combinations of positive and negative spillover (Richters, 1997).

#### *Individual and Family Correlates of Family-to-Work Spillover*

Consistent with an ecological perspective on family and work associations (Bronfenbrenner & Crouter, 1982), as well as role stress (Greenhaus & Beutell, 1985) and role enhancement theories (Marks, 1977), previous research suggests that multiple personal and contextual characteristics may shape experiences of spillover, including individual and family characteristics. Given the limited research to date examining positive and negative spillover using person-oriented approaches or samples of fathers with young children, however, the following section reviews studies of family-to-work spillover using variable-oriented approaches and samples of employed individuals in general, where relevant.

*Father Characteristics.* Fathers' own characteristics, including their age, education level, race, and sense of optimism, may be associated with positive and negative family-to-work spillover, although no studies have examined associations between paternal characteristics and person-oriented profiles of spillover to date. Multiple studies have found that older fathers experienced significantly less positive and negative family-to-work spillover (e.g., Frone, Russell, & Barnes, 1996; Grandey & Cropanzano, 1997; Grzywacz & Marks, 2000; Voydanoff, 2005). Older fathers are likely to have older children and thus may spend less time with children compared to younger fathers, potentially reducing experiences of both positive and negative spillover (Pleck, 1997). It is less clear if the same pattern would emerge in the current sample in

which all fathers have at least one young child in the home. Paternal education has also been linked to experiences of family-to-work spillover. Specifically, research suggests that less educated men experience less negative family-to-work spillover (Gryzwacz & Marks), while better-educated fathers experience more positive and negative family-to-work spillover (Dilworth, 2004; Keene & Reynolds, 2005; Voydanoff; Wayne, Musisca, & Fleeson, 2003). Better-educated fathers may be more actively involved in parenting and family work than less educated fathers (Coltrane, 1996), which could serve as a source of both role enhancement and role strain. Further, previous research by Grzywacz and colleagues (Grzywacz & Marks; Grzywacz & Bass, 2003) suggests that African American fathers may experience more positive family-to-work spillover than non-African American fathers (but see Keene & Reynolds for an exception). Previous research has noted the strong social support systems associated with many African American families (McAdoo, 1993) – these supports may increase the likelihood of employed African American fathers experiencing positive spillover from family to work. Finally, while no studies to date have examined associations between optimism and family-to-work spillover, previous research suggests that personality characteristics may serve as risk or protective factors for experiences of family-to-work spillover, although the specific direction of effects cannot be determined in cross-sectional and correlational research (Baltes, Reese, & Nesselrode, 1988). Higher levels of neuroticism have been linked to greater negative family-to-work spillover for fathers (Gryzwacz & Marks), while greater self-esteem predicted less negative family-to-work spillover for both mothers and fathers (Grandey & Cropanzano). Optimism, like self-esteem, may serve as a protective factor for fathers against negative family-to-work spillover, as optimistic fathers may be less likely to focus on negative aspects of family life.

*Partner Relationship Quality.* The quality of the partner relationship, including levels of support and conflict, may also shape family-to-work spillover. Evidence suggests that the emotional climate within the family can carry over into the workplace, with implications for workplace performance. Specifically, greater spousal and family support have been linked to less negative family-to-work spillover (e.g., Bernas & Major, 2000; Frone, Russell, & Cooper, 1992; Grzywacz & Marks, 2000, Voydanoff, 2005), while research by Crouter (1984) suggests that spousal support may predict greater positive family-to-work spillover. In contrast, the negative emotional climate associated with high spousal conflict may be detrimental to fathers' work experiences, as several studies have found that greater partner conflict predicts higher negative family-to-work spillover (Byron, 2005; Crouter) and lower positive family-to-work spillover (Grzywacz & Marks, 2000). The current study expanded on previous research by examining how partner support and conflict were associated with person-oriented profiles of positive and negative family-to-work spillover.

*Household Characteristics.* As noted by Greenhaus and Beutell (1985), the presence of young children may be associated with greater paternal time demands at home, creating the potential for experiences of family-to-work conflict. A recent meta-analytic review supports this possibility: in a review of 61 work-family conflict studies, Byron (2005) found that having younger children in the home was associated with greater negative family-to-work spillover. Related research by Kelly and Voydanoff (1985) found that having children who were preschool age or younger was associated with greater parental job tension. Further, although research suggests that household income is generally unrelated to family-to-work spillover (e.g., Dilworth, 2004; Grzywacz & Marks, 2000), less is known about how experiences of economic strain may be related to experiences of family-to-work spillover. For fathers in low-income

families, having difficulty paying bills or providing for basic necessities is likely to represent a pervasive form of family stress that may negatively impact multiple aspects of life, including workplace performance. Although no research to date has examined associations between economic strain and experiences of family-to-work spillover, previous studies have linked economic strain to higher levels of psychological distress (e.g., Conger & Elder, 1994), suggesting that greater strain may place fathers at risk for negative family-to-work spillover.

#### *Family-to-Work Spillover and Paternal Well-Being*

As positive and negative family-to-work spillover are conceptualized as indicators of the extent to which family experiences enhance or interfere with work responsibilities, spillover is likely to have implications for fathers' well-being. Research implementing variable-oriented approaches supports this conclusion, linking family-to-work spillover to both depressive symptoms and job satisfaction. Specifically, Frone, Russell, and Barnes (1996) found that higher family-to-work conflict predicted significantly greater clinical depression in two different community samples. Studies have also reported links between positive and negative family-to-work spillover, examined individually, and experiences of depressive symptoms among employed adults (e.g., Franche et al., 2006; Gryzwacz, 2000; Grzywacz & Bass, 2003). Further, negative family-to-work spillover has also been linked to job satisfaction among employees. In a meta-analysis of 46 studies, Kossek and Ozeki (1998) found that negative family-to-work spillover predicted lower job satisfaction, controlling for a number of background characteristics, including employee gender, marital status, and earner status (single- vs. dual-earner). This review, however, did not examine associations between positive family-to-work spillover and job satisfaction, about which little is known. The current study sought to expand upon previous research by examining whether and how holistic profiles of positive and negative family-to-work

spillover predicted depressive symptoms and job satisfaction among employed fathers with young children.

### *Research Questions*

Guided by role stress (Greenhaus & Beutell, 1985) and role enhancement (Marks, 1977) theories, as well as an ecological perspective on family and work relationships (Bronfenbrenner & Crouter, 1982), the following research questions were examined:

1. Can meaningful profiles of family-to-work spillover be identified across both positive and negative dimensions of spillover?
2. Are fathers' individual characteristics, partner relationship quality, and household characteristics associated with membership in different spillover subgroups?
3. Are profiles of paternal positive and negative family-to-work spillover differentially associated with fathers' depressive symptoms and job satisfaction?

### Method

#### *Participants*

Data came from the Family Life Project, a longitudinal study of approximately 1,300 families living in predominantly low-income, nonmetropolitan counties in North Carolina and Pennsylvania. Families were recruited for participation in local hospitals shortly after giving birth; families participated in home visits conducted when the target child was approximately 2-, 6-, 15-, 24-, and 36-months of age. Low-income and African American families were oversampled, providing an opportunity to better understand associations between work-family experiences and individual well-being in populations infrequently examined by work-family scholars (Lambert, 1999).

Data for the current analyses came from home visits conducted when the target child was approximately 36-months of age. Of the 1,292 families who participated in the first home visit when the target child was approximately 2-months old, 1,139 (88%) families participated when the target child was 36-months old and 654 (57%) families contained a male caregiver who was either the biological father of the target child, or the current partner of the child's mother. In 405 (61%) of these families, the father was employed for five or more hours per week. Two of these families (1%) were omitted from the analyses because the father failed to complete the work-family spillover questionnaire, resulting in a final sample of 403 fathers.

Table 4-1 provides the means and standard deviations for the variables used in the current analyses. Fathers were, on average, 33 years old, Non-African American (78% White; 1% Other), had an education level equivalent to a high school degree, plus some additional training, and had one or two children younger than 5 years of age in the home.

### *Procedure*

Trained interviewers conducted two in-home visits lasting 2-3 hours each. Questionnaire data were collected from mothers, and fathers when applicable. All father data were collected during the first home visit via laptop computer. Written consent was obtained from parents prior to conducting home visits (for a detailed description of sample selection and study procedures, see Vernon-Feagans et al., 2008).

### *Measures*

*Background information.* Parents provided information on age, race, education, and the total number and ages of children living in the home.

*Family-to-work spillover.* Fathers completed the Positive and Negative Family-Work Spillover subscales from the Work-Family Spillover Questionnaire (Grzywacz & Marks, 2000).

The Positive Family-Work Spillover subscale consisted of four items assessing the extent to which family experiences enhanced workplace performance, including “Talking with someone at home helps you deal with problems at work” ( $M = 3.22, SD = 1.10$ ), “Providing for what is needed at home makes you work harder at your job” ( $M = 3.91, SD = 1.03$ ), “The love and respect you get at home make you feel confident about yourself at work” ( $M = 4.04, SD = 0.96$ ), and “Your home life helps you relax and feel ready for the next day’s work” ( $M = 3.83, SD = 0.94$ ). The Negative Family-Work Spillover subscale consisted of four items measuring the degree to which family experiences interfere with workplace performance, including “Responsibilities at home reduce the effort you can devote to your job” ( $M = 2.41, SD = 0.97$ ), “Personal or family worries and problems distract you when you are work” ( $M = 2.45, SD = 0.89$ ), “Activities and chores at home prevent you from getting the amount of sleep you need to do your job well” ( $M = 2.46, SD = 0.94$ ), and “Stress at home makes you irritable at work” ( $M = 2.30, SD = 0.83$ ). Responses were rated on a 5-point scale ranging from *never* to *all the time*. Higher scores reflect greater positive and negative family-to-work spillover, respectively ( $\alpha = .73$  and  $.79$  for the positive and negative family-to-work spillover scales, respectively).

*Economic strain.* Fathers completed a modified, 6-item version of the Economic Strain Questionnaire (Conger & Elder, 1994), measuring the extent to which families are able to make ends meet and there is enough money for a home, clothing, food, and medical care. One item, ‘How difficult is it for you to pay your family’s bills each month’ was rated on a 5-point scale ranging from *no difficulty at all* to *great deal of difficulty*. A second item, ‘Generally, at the end of each month, do you end up with...’ was rated on a 5-point scale ranging from *more than enough money left over* to *not enough to make ends meet*. The remaining 4 items assessing income available for basic necessities (e.g., ‘We have enough money to afford the kind of food



we need') were rated on a 4-point scale ranging from *strongly agree* to *strongly disagree*.

Responses were summed to create an overall measure of economic strain ( $\alpha = .86$ ).

*Partner verbal aggression.* Fathers completed two versions of the Verbal Aggression subscale of the Conflict Tactics Scale - Couple Form R (CTS-R; Straus, 1990), examining the extent to which various forms of verbal aggression have been used to resolve couple conflicts over the past 12 months (e.g., 'Insulted or swore at him/her/you'). The two subscales contained six identical items – fathers reported on their own use of verbal aggression in one subscale and their partner's use of verbal aggression in the other. Responses were rated on a 7-point scale ranging from *never* to *more than 20 times*; higher scores reflect greater use of verbal aggression ( $\alpha = .77$  and  $.82$  for paternal reports of their own and their partner's use of verbal aggression, respectively). Because paternal reports of their own and their partner's use of verbal aggression were highly correlated ( $r = .80, p < .01$ ), the two subscales were averaged to create an overall measure of verbal aggression in the relationship.

*Partner intimacy / support.* Fathers completed the 6-item Emotional Intimacy subscale from the PAIR Inventory (Schaefer & Olson, 1981), measuring the extent to which fathers felt emotionally connected to, and supported by, their partner (e.g., 'My partner listens to me when I need someone to talk to'). Items were rated on a 5-point scale ranging from *strongly disagree* to *strongly agree*; higher scores reflect more emotional intimacy and support ( $\alpha = .81$ ).

*Optimism.* Fathers completed a 12-item version of the Life Orientation Test (Carver & Scheier, 1981), measuring fathers' relative optimism in their outlook on life (e.g., 'You always look on the bright side of things'). Responses were rated on a 4-point scale ranging from *strongly disagree* to *strongly agree*; higher scores reflect greater optimism ( $\alpha = .79$ ).

*Depressive symptoms.* Fathers completed the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), assessing the extent to which fathers experienced a variety of depressive symptoms over the past seven days (e.g., ‘I felt depressed’). Responses were rated on a 4-point scale ranging from *rarely or none of the time* to *most or all of the time*; higher scores reflect greater experiences of depressive symptoms ( $\alpha = .87$ ).

*Job satisfaction.* Fathers rated their job satisfaction using the Job Satisfaction and Security Questionnaire (Bond, Galinsky, & Swanberg, 1998). Satisfaction was assessed using a single item, ‘In general, how satisfied are you with your (main) job,’ rated on a 4-point scale ranging from *not at all satisfied* to *very satisfied*; higher scores reflect greater job satisfaction.

#### *Analytic Strategy*

Latent profile analysis (LPA) was used to examine whether distinct, holistic patterns of positive and negative family-to-work spillover could be identified. Regression models were then estimated to explore whether paternal individual and family characteristics predicted the probability of membership in the latent spillover classes, and whether membership in the latent classes was associated with paternal depressive symptoms and job satisfaction. LPA models associations between continuous manifest variables and categorical latent classes.

Computationally, LPA identifies subgroups (latent classes) in a population characterized by different patterns of responses to observed variables (Muthén, 2001). Given previous research suggesting both that the dimensions of positive and negative family-to-work spillover are orthogonal (Grzywacz & Marks, 2000) and that individuals may experience both positive and negative spillover concurrently (Crouter, 1984), it was hypothesized that family-to-work spillover was multidimensional, and that unique subgroups of fathers existed with qualitatively different patterns of family-to-work spillover.

To examine whether latent profiles of paternal family-to-work spillover could be identified, LPA models with one to seven classes were fit using Mplus version 5.2 (Muthén & Muthén, 2008); variables were standardized prior to estimating the LPA models. The optimal number of classes was determined based on parsimony, interpretability, and the use of multiple fit indices, including the Bayesian information criterion (BIC), Akaike information criterion (AIC), Lo-Mendall-Rubin likelihood ratio test (Lo, Mendell, & Rubin, 2001), and entropy statistic (Celeux & Soromenho, 1996). Next, individuals were assigned to latent classes based on their highest posterior probability of latent class membership, and logistic regression models were estimated to examine whether paternal individual and family characteristics were associated with membership in the spillover classes. Finally, multiple regression models were estimated to examine whether membership in the family-to-work spillover classes was associated with paternal depressive symptoms and job satisfaction, controlling for those individual and family characteristics that were associated with membership in the spillover classes. Missing data for all covariates and outcome variables ( $n = 5$  families) were multiply imputed in five separate datasets using SAS Proc MI (SAS Institute, 2003).

## Results

Bivariate associations between father individual and family characteristics are presented in Table 4-2. Covariates were largely related in ways that would be expected. Greater economic strain was associated with partner relationships characterized by more conflict and less support, lower paternal education, optimism, and job satisfaction, and greater paternal depressive symptoms. There was a strong negative relationship between partner conflict and support; more conflictual and less supportive partner relationships were associated with lower paternal optimism and job satisfaction, as well as higher paternal depressive symptoms. Older fathers

were more likely to be Non-African American and better-educated, while Non-African American and more optimistic fathers reported greater job satisfaction and lower depressive symptoms.

Table 4-3 presents the bivariate associations between the individual positive and negative family-to-work spillover items. Overall, the items were related in ways that were consistent with previous research. Positive spillover items were moderately to strongly correlated ( $r = .29 - .60$ ,  $p < .01$ ); a similar pattern was observed for negative spillover items ( $r = .39 - .60$ ,  $p < .01$ ). Some significant intercorrelations between the positive and negative spillover items were also observed. Specifically, two positive spillover items, “Love at home make you feel confident at work” and “Home life helps you feel ready for work” were negatively associated with all of negative spillover items. The remaining two positive spillover items, “Talking at home helps with work problems” and “Providing for home makes you work harder” were largely unrelated to the negative spillover items.

#### *A Latent Typology of Paternal Family-to-Work Spillover*

A 5-class model was selected as the model that best fit the data based on statistical fit, interpretability, and parsimony (see Table 4-4). Although the 6-class model had lower AIC and BIC values than the 5-class model, an examination of the 6-class solution revealed that the additional class identified in this solution contained only six individuals (less than 2% of the total sample) and was not clearly interpretable. Because the fit indices suggested the 5-class solution was a less optimal solution, however, independent samples t-tests were conducted to examine the extent to which mean scores for the positive and negative family-to-work spillover items were distinct across the five classes. As shown in Table 4-5, 90% (72 of 80) of the t-tests revealed significant differences in mean scores across the classes, indicating that they were distinct. Some overlap, however, was observed between classes 3 and 5 on the positive spillover items, and

between classes 3 and 4 on the negative spillover items. Despite this minor overlap, an examination of the standardized mean scores for the 5-class model suggested that the classes were distinguishable, and that meaningful labels could be assigned to each class.

The standardized mean scores for the positive and negative spillover items are presented in Table 4-5. Labels were assigned based on the primary features that distinguished each class from the rest of the sample. Slightly less than half (45%) of fathers reported average levels of both positive and negative spillover, relative to the sample overall. Thus, this class was labeled ‘Average Spillover’. Two additional classes were characterized by opposing patterns of positive and negative family-to-work spillover. Specifically, 23% of fathers were characterized by relatively low positive spillover and high negative spillover. This class was labeled ‘Moderately Low Positive / High Negative’. In contrast, the second class, labeled ‘High Positive / Low Negative’ (16% of fathers), consisted of fathers who reported the highest levels of positive spillover and the lowest levels of negative spillover, relative to the sample overall.

The remaining two classes were characterized by perceptions of high or low levels of both positive and negative family-to-work spillover. Specifically, 9% of fathers reported low positive spillover, as well as relatively low negative spillover. Thus, this class was labeled ‘Low Positive / Moderately Low Negative’. Finally, the smallest class of fathers in the current sample (8%) was characterized by the highest levels of negative spillover, but also by relatively high levels of positive spillover. This class was labeled ‘Moderately High Positive / High Negative’.

#### *Father and Family Characteristics Predicting Paternal Membership in Family-to-Work Spillover Classes*

Prior to estimating regression models, the average posterior probabilities for assigned latent class membership were examined to determine whether fathers could be reliably assigned

to spillover classes. The average probabilities of latent class membership ranged from .87 to .90 across the five classes, and were consistent with previously established criteria for “high” posterior probabilities (Roeder, Lynch, and Nagin, 1999; posterior probabilities greater than .70 are considered “high”). Thus, the decision was made to assign fathers to spillover classes in order to examine the correlates of paternal membership in the spillover classes, as well as the implications of membership in the spillover classes for paternal well-being.

As shown in Table 4-6, several family characteristics were associated with paternal membership in the family-to-work spillover classes. Fathers who reported greater economic strain were over two times more likely to be in the ‘Moderately Low Positive / Moderately High Negative’ and Moderately High Positive / High Negative’ classes, and 1.9 times more likely to be in the ‘Average Positive / Average Negative’ class, relative to the ‘High Positive / Low Negative’ reference class. Both dimensions of partner relationship quality were also associated with fathers’ membership in the spillover classes. Fathers in dyads that used verbal aggression more frequently were 1.6 times more likely to be in the ‘Moderately Low Positive / Moderately High Negative’ class and 2.1 times more likely to be in the ‘Moderately High Positive / High Negative’ class. In contrast, fathers reporting greater levels of intimacy and support in their relationship with their partner were 2.9 times *less* likely to be in the ‘Moderately Low Positive / Moderately High Negative’ class, as well as 1.8 times *less* likely to be in the ‘Low Positive / Moderately Low Negative’ class.

Multiple father characteristics were also associated with membership in the family-to-work spillover classes. African American fathers were 4.7 times *less* likely to be in the ‘Moderately Low Positive / Moderately High Negative’, and over 3 times *less* likely to be in the ‘Low Positive / Moderately Low Negative’ and ‘Average Positive / Average Negative’ classes,

relative to the ‘High Positive / Low Negative’ reference class. In contrast, more educated fathers were 1.7 times more likely to be in the ‘Moderately Low Positive / Moderately High Negative’ class and 1.5 times more likely to be in the ‘Average Positive / Average Negative’ class. Finally, more optimistic fathers were 1.9 times *less* likely to be in the ‘Moderately High Positive / High Negative’ and ‘Moderately Low Positive / Moderately High Negative’ classes, respectively.

#### *Paternal Family-to-Work Spillover Classes and Fathers’ Well-Being*

As shown in Table 4-7, multiple father and family characteristics were associated with paternal depressive symptoms. Fathers who reported that their families experienced greater economic strain, as well as fathers who reported more frequent use of verbal aggression in the partner relationship, had significantly higher depressive symptoms. In contrast, greater intimacy and support in the partner relationship was associated with significantly lower paternal depressive symptoms. With regard to fathers’ individual characteristics, older fathers and more optimistic fathers had significantly lower depressive symptoms.

Examining associations with the paternal family-to-work spillover classes, membership in the two classes characterized, in part, by high levels of negative spillover was associated with paternal depressive symptoms. Specifically, fathers in the ‘Moderately High Positive / High Negative’ class reported significantly greater depressive symptoms, relative to the ‘High Positive / Low Negative’ reference class. Membership in the ‘Moderately Low Positive / Moderately High Negative’ class was also associated with greater depressive symptoms, although this association only approached significance. It should be noted that these associations were observed despite accounting for numerous potential confounds in the covariate model.

Multiple father and family characteristics were also associated with paternal reports of job satisfaction. Greater economic strain was associated with significantly lower paternal job

satisfaction; older fathers and more optimistic fathers reported significantly higher job satisfaction. Membership in the family-to-work spillover classes, however, was not associated with paternal job satisfaction.

## Discussion

The current study examined whether person-oriented profiles of family-to-work spillover could be identified in a sample of predominantly low-income and working-class rural fathers, whether father and family characteristics were associated with membership in the spillover classes, and whether membership in the spillover classes was associated with paternal depressive symptoms and job satisfaction. Latent profile analysis revealed clear and meaningful spillover classes based on combinations of both positive and negative family-to-work spillover. Consistent with role stress and role enhancement theories, multiple sources of family strain and support, as well as multiple characteristics of fathers themselves, were associated with patterns of spillover. Finally, fathers' membership in the spillover classes characterized, in part, by high negative family-to-work spillover, was associated with significantly higher depressive symptoms.

With regard to the spillover classes, considerable differences were observed in overall levels and patterns of positive and negative spillover across the classes. The largest subgroup of fathers, the 'Average Positive / Average Negative' spillover class (45%), was characterized by a tendency to have neither high nor low levels of positive and negative family-to-work spillover, relative to other fathers in the sample. Almost one-fourth of fathers in the sample, however, were characterized by both relatively low positive spillover and relatively high negative spillover, which have been linked, individually, with numerous negative outcomes for fathers (e.g., Franche et al., 2006; Frone, 2003; Grzywacz, 2000). Conversely, only 16% of fathers in the current sample were characterized by high positive spillover and low negative spillover, a



combination which evidence suggests would be associated with the most positive outcomes (e.g., Grzywacz & Marks, 2000). It should be noted that this difference may be due, at least in part, to the sample of predominantly low-income and working class rural fathers examined in the current study – future research is needed to determine if similar patterns emerge among more representative samples. Interestingly, seemingly counterintuitive combinations of either high positive and high negative family-to-work spillover, or low positive and low negative family-to-work spillover characterized almost one in six fathers. This finding highlights one benefit of a person-oriented approach, as it suggests that experiences of positive and negative spillover are not always inversely related, and provides further support for the relatively orthogonal relationship between experiences of positive and negative spillover (e.g., Grzywacz & Marks).

With respect to correlates of the spillover classes, fathers who reported greater economic strain were significantly less likely to be in the ‘High Positive / Low Negative’ class, relative to all other classes. This is consistent with previous work linking economic strain to greater psychological distress (e.g., Conger & Elder, 1994), although this is the first study to examine such associations with family-to-work spillover. It should be noted, however, that because greater economic strain was associated with membership in all of the less optimal spillover classes, the specific impacts of economic strain on paternal patterns of family-to-work spillover are likely to vary depending on additional factors, such as other family and personal characteristics. Conversely, the number of young children in the home was unrelated to membership in the spillover classes. Although previous research has linked the presence of young children in the home to greater negative family-to-work spillover (e.g., Byron, 2005), it should be noted that the current study included a select sample of fathers who all had at least one young child. Thus, the current findings may suggest that the presence of additional young

children in the home does not contribute to greater perceptions of positive or negative spillover. It is possible, however, that there was not sufficient variability in the sample, as the majority of families with multiple young children only had two children under age five.

With regard to father and partner relationship characteristics, the probability of fathers' membership in the spillover classes was distinguished primarily by overall patterns of characteristics, rather than by single dimensions alone. For example, fathers in the 'Moderately Low Positive / Moderately High Negative' class were characterized, globally, by fewer personal resources and family supports, as well as higher strain and conflict. Fathers in this class experienced significantly greater partner verbal aggression, as well as less partner support, relative to fathers in the 'High Positive / Low Negative' class, supporting previous research linking lower quality partner relationships to higher negative and lower positive family-to-work spillover (e.g., Bernas & Major, 2000; Crouter, 1984; Grzywacz & Marks, 2000). Fathers in this class were also significantly less likely to be African American and optimistic. These findings suggest that the strong social support systems associated with African American families (McAdoo, 1993), as well as positive personality characteristics (Grandey & Cropanzano, 1997), may buffer fathers from experiencing combinations of low positive and high negative family-to-work spillover. Interestingly, these fathers were also better-educated, on average, relative to fathers in the 'High Positive / Low Negative' class. Although somewhat inconsistent with previous research suggesting that higher education predicts higher positive and negative spillover (e.g., Dilworth, 2004; Keene & Reynolds, 2005; Voydanoff, 2005), this is the first study to examine this association exclusively among fathers with young children. As better-educated fathers are both more likely to work highly demanding jobs (e.g., Bond, Galinsky, & Swanberg, 1998) and to be involved in childcare (e.g., Coltrane, 1996), balancing work and family

responsibilities may be especially challenging for them, particularly when combined with other factors, such as low partner support and high partner conflict, increasing their likelihood of experiencing low positive and high negative spillover.

Fathers in the ‘Low Positive / Moderately Low Negative’ class were also characterized by low support in the partner relationship and were less likely to be African American, but did not differ in levels of partner conflict, education, or optimism, relative to the ‘High Positive / Low Negative’ class. Thus, while it appears that a lack of family and partner support predicts less positive family-to-work spillover for these fathers, the absence of significantly higher partner conflict, combined with comparable levels of personal characteristics, such as optimism, may also result in these fathers perceiving their family life as having relatively few negative influences on their work experiences. In contrast, fathers in the ‘Moderately High Positive / High Negative’ class were characterized by a somewhat inverse pattern of covariates – these fathers reported significantly higher partner verbal conflict and significantly lower optimism, but did not differ from fathers in the ‘High Positive / Low Negative’ class in partner support or their likelihood of being African American. Interestingly, the current results suggest that the presence of higher partner conflict and less personal optimism, but also comparable levels of family support, appear not to cancel each other out, but rather to result in fathers perceiving their families as both a benefit and a burden to their job performance, simultaneously.

Examining the implications of patterns of family-to-work spillover for fathers’ well-being, fathers perceiving moderately low positive and moderately high negative spillover reported higher depressive symptoms. This is consistent with previous research linking lower positive family-to-work spillover and higher negative family-to-work spillover, individually, to greater depressive symptoms (e.g., Bernas & Major, 2000; Grzywacz, 2000). Although this

association only approached significance in the current study, it should be noted that this link was observed after accounting for numerous covariates associated with both the probability of membership in this spillover class and paternal reports of depressive symptoms, including economic strain, partner conflict and support, and paternal optimism. Importantly, paternal membership in the class characterized by perceptions of high positive and high negative spillover was also associated with greater depressive symptoms. Although previous research has linked positive spillover to better mental health (e.g., Grzywacz), such studies have not examined the implications of various combinations of positive and negative family-to-work spillover for well-being. Results from the current study suggest that high negative family-to-work spillover is a risk factor for poor mental health, even for fathers who also report high positive family-to-work spillover. Thus, interventions specifically targeting negative family-to-work-spillover, such as programs to help restructure or redefine roles within the family, or programs to help fathers alter their perceptions toward specific role demands, may be an efficacious and cost-effective means of decreasing paternal experiences of depressive symptoms (Frone, 2003).

Finally, membership in the family-to-work spillover classes was unrelated to paternal reports of job satisfaction. Although inconsistent with previous research (e.g., Kelly & Voydanoff, 1986), this is the first study to examine patterns of positive and negative family-to-work spillover and paternal reports of job satisfaction. It is possible that paternal membership in the spillover classes may be more strongly related to specific aspects of job performance not measured in the current study, such as absenteeism or productivity (Frone, 2003). Additionally, the current study relied on only a single item to measure job satisfaction – it is possible that associations between the spillover classes and job satisfaction could be uncovered in future

studies incorporating more robust measures of job satisfaction, including specific indicators of what fathers like or dislike about their jobs.

Several limitations to the current study should be noted. First, the data in the current study were cross-sectional. Thus, it is not possible to determine the direction of effects for associations between the spillover classes, father and family characteristics, and paternal indicators of well-being. This limitation is particularly noteworthy for the observed associations between membership in the spillover classes and paternal depressive symptoms, as it is possible that depression may shape perceptions of family-to-work spillover. Longitudinal studies incorporating experimental designs are needed in order to better understand the direction of associations. Second, data from the current study were largely based on paternal reports – thus, the observed associations may be inflated due to common method variance. Independent measures of family characteristics and paternal well-being would clarify associations between paternal and family characteristics, patterns of family-to-work spillover, and paternal well-being. Finally, although it was hypothesized that African American fathers may have more supportive family environments, support from family and friends was not directly measured in the current study beyond the partner relationship. Future studies incorporating more extensive measures of family support would clarify associations between ethnicity, specific types of paternal support, and patterns of family-to-work spillover.

Despite these limitations, the current study expands the field in a number of important ways. Perhaps most notably, the current investigation used a person-oriented methodology to examine patterns of positive and negative spillover among employed fathers, an approach not often taken in work-family research. Further, this approach expands our understanding of work and family spillover by considering the various patterns of spillover experienced by fathers, the

personal and family correlates associated with these patterns, and the implications of these patterns for fathers' well-being. By examining spillover from family-to-work, rather than from work-to-family, this investigation also offers insight into a dimension of the work-family interface about which little is known. Finally, the current study included a sample of predominantly low-income and working class, nonmetropolitan fathers with young children, a population rarely examined in the spillover literature.

With recent trends demonstrating marked increases in maternal employment (U.S. Department of Labor, 2006) and paternal involvement with children (e.g., Pleck & Masciadrelli, 2004), an increasing number of fathers are likely to face challenges associated with balancing work and family responsibilities. Research is needed that examines whether programs designed to restructure family roles or fathers' perceptions of role demands are associated with changes in patterns of spillover, as well as fathers' mental health and job performance. Continuing to examine work and family linkages using multidimensional, person-oriented approaches may offer further unique insight into the complex and reciprocal associations between these two increasingly interconnected domains of life, making this an important area for future research.

Table 4-1

*Descriptive Statistics for Background Characteristics of the Sample (n = 403)*

Variables	M	SD	Range	%
Number of children < 5	1.49	0.60	1.00 – 4.00	
Economic strain	12.21	3.92	6.00 – 26.00	
Partner verbal aggression	1.15	0.98	0.00 – 4.75	
Partner intimacy / support	3.99	0.73	1.00 – 5.00	
Father age	33.21	5.90	20.65 – 53.22	
Father education	15.65	2.40	8.00 – 22.00	
Father optimism	2.88	0.38	1.58 – 4.00	
Father depressive symptoms	0.45	0.40	0.00 – 2.30	
Father job satisfaction	3.32	0.69	1.00 – 4.00	
Father Race				
Non-African American (n = 319)				79.2
African American (n = 84)				20.8

Table 4-2

*Correlations of Paternal Individual and Family Characteristics (n = 403)*

	1	2	3	4	5	6	7	8	9	10
1. Number of children < 5	—									
2. Economic strain	.04	—								
3. Partner verbal aggression	-.06	.11*	—							
4. Partner intimacy / support	-.01	-.19**	-.45**	—						
5. Father age	-.15*	-.04	-.01	-.04	—					
6. Father race <sup>a</sup>	.04	.14**	.01	-.06	-.16**	—				
7. Father education	-.04	-.22**	.01	.08	.30**	-.26**	—			
8. Father optimism	.02	-.21**	-.18**	.18**	-.02	.09 <sup>†</sup>	.18**	—		
9. Father depressive symptoms	.02	.33**	.34**	-.38**	-.11*	.11*	-.18**	-.43**	—	
10. Father job satisfaction	-.07	-.28**	-.14**	.16**	.16**	-.10*	.06	.20**	-.29**	—

<sup>a</sup>Father race: 0 = Non-African American, 1 = African American.

<sup>†</sup>p < .10. \*p < .05. \*\*p < .01.



Table 4-3

*Correlations of Positive and Negative Family-to-Work Spillover Items (n = 403)*

	1	2	3	4	5	6	7	8
1. PWFS 1: Talking at home helps with work problems	—							
2. PFWS 2: Providing for home makes you work harder	.32**	—						
3. PFWS 3: Love at home makes you feel confident at work	.44**	.45**	—					
4. PFWS 4: Home life helps you feel ready for work	.33**	.29**	.60**	—				
5. NFWS 1: Home responsibilities reduce job effort	-.05	-.10*	-.10*	-.11*	—			
6. NFWS 2: Family worries and problems distract you at work	.06	-.01	-.09 <sup>†</sup>	-.14**	.49**	—		
7. NFWS 3: Activities at home prevent sleep needed to do job well	.01	.05	-.13*	-.22**	.39**	.50	—	
8. NFWS 4: Stress at home makes you irritable at work	-.06	-.01	-.17**	-.24**	.39**	.59**	.60**	—

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

Table 4-4

*Comparison of Models for Latent Profiles of Paternal Family-to-Work Spillover (n = 403).*

Number of Latent Classes	Log Likelihood	AIC	BIC	Lo-Mendel-Rubin	Entropy
1	-4570.65	9173.31	9237.29	---	---
2	-4383.99	8817.99	8917.97	$p < .001$	0.71
3	-4284.43	8636.85	8772.82	$p < .05$	0.75
4	-4208.65	8503.30	8675.25	$p = .35$	0.83
<b>5</b>	<b>-4138.11</b>	<b>8380.22</b>	<b>8588.17</b>	<b><math>p = .12</math></b>	<b>0.83</b>
6	-4085.36	8292.71	8536.65	$p = .24$	0.85

*Note:* The 7 class model did not converge, suggesting nonidentification. Bold font indicates the model that best fit the data.

Table 4-5

*Standardized Mean Scores for a 5-Class Model of Paternal Family-to-Work Spillover (n = 403).*

	Average Spillover (45%)	Moderately Low Positive / Moderately High Negative (23%)	High Positive / Low Negative (16%)	Low Positive / Moderately Low Negative (9%)	Moderately High Positive / High Negative (8%)
<b>Positive F-W Spillover</b>					
PWFS 1: Talking at home helps with work problems	.07 <sub>a</sub>	-.40 <sub>b</sub>	<b>.63<sub>c</sub></b>	<b>-.88<sub>d</sub></b>	<b>.51<sub>c,e</sub></b>
PFWS 2: Providing for home makes you work harder	.16 <sub>a</sub>	-.32 <sub>b</sub>	<b>.58<sub>c</sub></b>	<b>-1.24<sub>d</sub></b>	.24 <sub>a,c,e</sub>
PFWS 3: Love at home makes you feel confident at work	.38 <sub>a</sub>	<b>-.98<sub>b</sub></b>	<b>.88<sub>c</sub></b>	<b>-1.46<sub>d</sub></b>	<b>.63<sub>c,e</sub></b>
PFWS 4: Home life helps you feel ready for work	.18 <sub>a</sub>	<b>-.93<sub>b</sub></b>	<b>.98<sub>c</sub></b>	<b>-.69<sub>b,d</sub></b>	<b>.57<sub>e</sub></b>
<b>Negative F-W Spillover</b>					
NFWS 1: Home responsibilities reduce job effort	-.08 <sub>a</sub>	.40 <sub>b</sub>	<b>-.87<sub>c</sub></b>	<b>-.51<sub>d</sub></b>	<b>1.69<sub>e</sub></b>
NFWS 2: Family worries and problems distract you at work	.01 <sub>a</sub>	<b>.51<sub>b</sub></b>	<b>-1.09<sub>c</sub></b>	<b>-.82<sub>c,d</sub></b>	<b>1.63<sub>e</sub></b>
NFWS 3: Activities at home prevent sleep needed to do job well	-.01 <sub>a</sub>	<b>.66<sub>b</sub></b>	<b>-.96<sub>c</sub></b>	<b>-.83<sub>c,d</sub></b>	<b>1.02<sub>b,e</sub></b>
NFWS 4: Stress at home makes you irritable at work	.03 <sub>a</sub>	<b>.68<sub>b</sub></b>	<b>-1.15<sub>c</sub></b>	<b>-.83<sub>d</sub></b>	<b>1.15<sub>e</sub></b>

*Note:* Standardized scores greater than .50 above or below the sample mean highlighted in bold. Means in the same row with different subscripts are significantly different ( $p < .05$ ).

Table 4-6

*Odds Ratios Relating Father and Family Characteristics to Fathers' Membership in the Latent Family-to-Work Spillover Classes (n = 403).*

Variables	Family-Work Spillover Latent Class			
	Moderately Low Positive / Moderately High Negative	Low Positive / Moderately Low Negative	Moderately High Positive / High Negative	Average Positive / Average Negative
	$e^B$	$e^B$	$e^B$	$e^B$
Number of children < 5	0.98	1.05	1.06	1.06
Economic strain	2.12**	1.60 <sup>†</sup>	2.25**	1.92**
Partner verbal aggression	1.60*	1.53	2.09**	1.31
Partner intimacy / support	0.35**	0.55*	0.77	0.70 <sup>†</sup>
Father age	1.41	1.14	1.39	1.35 <sup>†</sup>
Father race <sup>a</sup>	0.21**	0.30*	0.79	0.26**
Father education level	1.72*	1.26	1.23	1.49*
Father optimism	0.52**	0.89	0.53**	0.87

Note: All continuous predictors were standardized prior to estimating logistic regression models.

High Positive / Low Negative is the reference class.

<sup>a</sup>Father race: 0 = *Non-African American*, 1 = *African American*.

<sup>†</sup> $p < .10$ . \*  $p < .05$ . \*\* $p < .01$ .

Table 4-7

*Ordinary Least Squares Regression Models of Paternal Family-to-Work Spillover Classes**Predicting Fathers' Depressive Symptoms and Job Satisfaction (n = 403).*

Variable	Depressive Symptoms		Job Satisfaction	
	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>
Intercept	-0.09	0.11	0.17	0.13
Economic strain	0.17**	0.04	-0.22**	0.05
Partner verbal aggression	0.13**	0.05	-0.05	0.05
Partner intimacy / support	-0.18**	0.05	0.05	0.06
Father age	-0.09*	0.04	0.17**	0.05
Father race <sup>a</sup>	0.17	0.11	-0.21 <sup>†</sup>	0.12
Father education	-0.03	0.05	-0.09	0.05
Father optimism	-0.30**	0.04	0.15**	0.05
Moderately low positive spillover / moderately high negative class	0.25 <sup>†</sup>	0.15	-0.26	0.18
Low positive spillover / moderately low negative spillover	-0.13	0.17	-0.11	0.20
Moderately high positive spillover / high negative spillover class	0.47*	0.18	-0.03	0.21
Average positive spillover / average negative spillover class	-0.05	0.12	-0.12	0.14

Note: High Positive / Low Negative is the reference class.

<sup>a</sup>Father race: 0 = *Non-African American*, 1 = *African American*.

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

## Chapter 5

### Integrative Discussion

The majority of fatherhood research to date has incorporated nationally representative samples or samples of fathers living in suburban or urban areas, as well as variable-oriented analytic approaches, to examine associations between levels of covariates and levels of various parenting dimensions (for summaries, see Parke, 2002; Pleck, 1997, & Pleck & Masciadrelli, 2004). An ecological perspective (e.g., Bronfenbrenner, 1979), however, suggests that multiple proximal and distal factors, including family, workplace, and cultural characteristics, may shape levels and quality of fathers' parenting. Further, these characteristics also represent sources of reciprocal influence (e.g., Bronfenbrenner & Crouter, 1982). Thus, individual and family characteristics may also inhibit or enhance fathers' experiences in other social contexts, such as the workplace. Finally, applying person-oriented analytic techniques to fatherhood research may expand our understanding of work and family relationships by examining fathers holistically, and identifying subgroups of fathers who share similar profiles across multiple constructs of interest. With this in mind, the three aims of the current investigation were designed to advance our understanding of fathers by examining paternal work and family experiences in diverse social, cultural, and geographical contexts, as well as by using multiple, independent sources of parenting data and person-oriented analytic techniques to provide more nuanced explorations of fathers as parents and individuals.

The first aim was to examine whether person-oriented profiles of fathering with infants could be developed across socioemotional and linguistic dimensions of parenting in a sample of predominantly low-income and working-class rural fathers, as well as to examine whether and

how paternal experiences of multiple work stressors predicted the probability of membership in the fathering classes (Chapter 2). Distinct classes of father-infant parenting quality were identified that included both positive and negative profiles of fathering. Importantly, results also suggested that fathers demonstrating the greatest sensitivity and responsiveness to infants were not the same fathers who were the most verbal, highlighting both the utility of person-oriented approaches, as well as the importance of considering multiple dimensions and contexts when evaluating fathers' parenting quality. Notably, a nonsupportive work environment was associated with fathers' membership in multiple subgroups characterized by lower overall parenting quality, suggesting that improvements in workplace support and flexibility may be beneficial to multiple groups of fathers with differing parenting deficits across both socioemotional and linguistic dimensions.

Second, levels and correlates of paternal involvement with youth (ages 8 – 22) were examined in working- and middle-class, two-parent African American families (Chapter 3). Contrary to stereotypical portrayals of African American fathers as largely uninvolved with children (Roopnarine, 2004), results from the current study suggested these fathers were involved with youth at levels comparable to previous studies incorporating nationally representative samples or samples of White, middle-class fathers. Further, African American fathers in these families tended to be central figures in their children's lives, as they were involved in almost 20 percent of all activities youth reported engaging in, on average. Results from MLM analyses suggested that fathers' own beliefs about their investment in the worker role were one of the most consistent predictors of father involvement. These findings suggest that programs designed to promote greater work and family role flexibility may represent a promising means of increasing African American father involvement with youth.

The third aim examined whether person-oriented profiles of paternal family-to-work spillover could be developed, and explored the individual and family correlates of membership in the spillover classes, as well as the implications of membership in the spillover classes for paternal depressive symptoms and job satisfaction (Chapter 4). Latent profile models identified clear subgroups of fathers who perceived different patterns of positive and negative spillover. Advancing our understand of family-to-work spillover, the current findings suggested that almost 20 percent of fathers perceived high or low levels of both positive and negative family-to-work spillover, respectively. Further, multiple sources of family strain and support, as well as multiple characteristics of fathers themselves, were associated with patterns of spillover. Finally, membership in the spillover classes characterized, in part, by high negative family-to-work spillover, was associated with significantly higher depressive symptoms, suggesting that even perceptions of high positive family-to-work spillover may not buffer fathers from the links between negative family-to-work spillover and depressive symptoms.

#### Strengths and Limitations

Collectively, the current studies have a number of noteworthy strengths. First, they expand our understanding of fathers and fathering by exploring work, family, and parenting associations in two populations less frequently examined in the fatherhood and work-family literatures: working- and middle-class African American families and low-income and working-class rural families. Further, the use person-oriented analytic techniques allowed for more holistic and nuanced views on fathers as parents and as individuals, providing a greater understanding of patterns of fathering across multiple dimensions, the various combinations of family-to-work spillover perceived by fathers. Third, the use of independent measures of paternal involvement and parenting quality increased the likelihood that the observed



associations between father, family, and workplace characteristics and fathering were not the result of common method variance. Finally, by exploring the individual and family correlates of paternal family-to-work spillover, in addition to examining the individual, family, and workplace correlates of fathers' parenting, the current study provides a more comprehensive understanding of the reciprocal relationships that exist between work and family for fathers.

The primary limitations for these studies are threefold. First, the data are cross-sectional and correlational, limiting the ability to make causal inferences about the specific direction of effects for observed associations. Further, while person-oriented analytic techniques hold great promise for expanding our understanding of fathers and work-family relationships, latent profiles of parenting quality and family-to-work spillover in the current investigation were exploratory and sample dependent. It is possible that differing patterns of fathering or family-to-work spillover could emerge in other samples of fathers, making replication of these findings a priority in future research. Finally, the samples were not representative of all rural families or middle-class African American families in the United States. Thus, the generalizability of the current findings to other samples of rural and African American fathers may be somewhat limited.

#### Future Directions

A number of policy and research programs are recommended based on this investigation. First, as all of the current studies incorporated correlational data from single time points, longitudinal studies and experimental research designs are needed to better understand parenting quality and perceptions of family-to-work spillover among fathers in rural communities, as well as involvement among working- and middle-class African American fathers. Such longitudinal work could help advance our understanding of fathers' parenting and perceptions of spillover in several ways. First, longitudinal studies would allow for an examination of these processes as

developmental phenomena, modeling trajectories or changes in patterns over time. Second, such designs would allow for an examination of whether and how changes in individual, family, and workplace characteristics are associated with concurrent or later changes in parenting behaviors and spillover perceptions. Third, by conducting experimental studies of workplace or family interventions (such as studies to improve informal work supports or promote more supportive parental relationships), researchers could determine whether specific modifications to workplace characteristics or within-family patterns of behavior cause specific changes in fathers' parenting behaviors or perceptions of family-to-work spillover.

Further, although the current studies examined individual, family, and workplace correlates of parenting quality and involvement, further research is needed examining patterns of parenting quality *and* involvement in combination across fathers. Although it is often assumed that paternal involvement is beneficial to children, many studies of paternal involvement to date do not contain measures of the actual quality of fathers' parenting, although recent studies have begun to consider fathers' involvement activities that should be beneficial to children's development (e.g., helping with homework; for summaries, see Pleck, 1997 and Pleck & Masciadrelli, 2004). Likewise, studies of fathers' parenting quality have often assumed that higher quality parenting results in positive child development outcomes, without considering whether a minimum threshold of time spent with children is necessary for these positive benefits to materialize (for a summary, see Parke, 2002). By identifying subgroups of fathers based on involvement and parenting quality in combination, greater insight could be gained into the varieties of fathering patterns that exist, and could allow for a more in-depth examination of the extent to which differing levels of involvement and quality predict children's social, emotional, cognitive, and academic development. Further, by studying these patterns over time, it would be

possible to examine transitions across parenting classes. Thus, researchers could examine how changes in workplace and family stressors or supports predict changes in fathering over time. Additionally, such models would allow researchers to more explicitly test the hypothesis that fathers characterized by high involvement but low or average parenting quality may transition to classes characterized by higher parenting quality over time (e.g., Almeida & Galambos, 1991).

Additionally, these results suggest that a lack of workplace support and flexibility, as well as high paternal investment in the worker role, were associated with lower quality father-infant relationships and less paternal involvement with youth. Policies and programs designed to increase informal workplace supports may represent one way to both reduce fathers' experiences of work stress and increase the amount of time they can devote to family life. Specifically, providing employees with greater control over their work hours and schedules may reduce the stress associated with unexpected family demands that interfere with work responsibilities, by allowing to fathers to adjust the hours they work in a given day, or to swap work shifts or hours with other employees (Lambert, 2009). Further, such programs could allow fathers to structure work hours around family events and needs, providing fathers who are heavily invested in the worker role an opportunity to be more involved in family life without having to reduce the amount of time they devote to their jobs. Finally, it is also possible that greater control over hours and schedules could increase perceptions of positive family-to-work spillover and decrease perceptions of negative family-to-work spillover, as greater paternal involvement in family life may result in mothers being more satisfied and supportive in the partner relationship. Future research, however, is needed to ascertain the extent to which greater employee control over hours and schedules may actually result in improvements in both paternal parenting and perceptions of family-to-work spillover.

## Conclusion

The current studies provide insight into the work and family experiences for fathers in two relatively understudied populations: low-income and working class rural families and working- and middle-class African American families. Continuing to examine work and family contexts for diverse groups of fathers and incorporating person-oriented methodologies into the study of fathers' social relationships could lead to greater understanding of fathers as parents and individuals, as well as their impact on others – an important area for future research.

## References

- Ahmeduzzaman, M. & Roopnarine, J.L. (1992). Sociodemographic factors, functioning style, social support, and fathers' involvement with preschoolers in African-American families. *Journal of Marriage and the Family*, 54, 699-707.
- Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Allen, S.M. & Hawkins, A.J. (1999). Maternal gatekeeping: Mothers beliefs and behaviors that inhibit greater father involvement in family work. *Journal of Marriage and Family*, 61, 199-212.
- Allen, W.D. & Doherty, W.J. (1996). The responsibilities of fatherhood as perceived by African American teenage fathers. *Families in Society*, 77, 142-155.
- Almeida, D.M. & Galambos, N.L. (1991). Examining father involvement and the quality of father-adolescent relations. *Journal of Research on Adolescence*, 155-172.
- Amato, P.R. (1998). More than money? Men's contributions to their children's lives. In A Booth & A.C. Crouter (Eds.), *Men in families: When do they get involved? What difference does it make?* (pp. 241-278). Mahwah, NJ: Erlbaum.
- Amato, P.R. & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity. *Journal of Marriage and Family*, 64, 703-716.
- Amato, P.R. & Rivera, F. (1999). Paternal involvement and children's behavior problems. *Journal of Marriage and the Family*, 61, 375-384.
- Baltes, P.B., Reese, H.W., & Nesselroade, J.R. (1988). *Life span developmental psychology*. Hillsdale, NJ: Erlbaum.

- Barnett, R.C. (1998). Towards a review and reconceptualization of the work/family literature. *Genetic, Social, and General Psychology Monographs, 124*, 125-182.
- Barnett, R.C. & Baruch, G.K. (1987). Determinants of fathers' participation in family work. *Journal of Marriage and the Family, 49*, 29-40.
- Barnett, R.C. & Gareis, K.C. (2007). Shift work, parenting behaviors, and children's socioemotional well-being. *Journal of Family Issues, 28*, 727-748.
- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychology research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 6*, 1173-1182.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83-96.
- Bergman, L.R. & Magnusson, D. (1997). A person-oriented approach to research on developmental psychopathology. *Development and Psychopathology, 9*, 291-319.
- Bergman, L.R. & Trost, K. (2006). The person-oriented versus the variable-oriented approach: Are they complementary, opposites, or exploring different worlds? *Merrill-Palmer Quarterly, 52*, 601-632.
- Bernas, K.H. & Major, D.A. (2000). Contributors to stress resistance: Testing a model of women's work-family conflict. *Psychology of Women Quarterly, 24*, 170-178.
- Blair, S.L., Wenk, D., & Hardesty, C. (1994). Marital quality and paternal involvement: Interconnections of men's spousal and parental roles. *The Journal of Men's Studies, 2*, 221-237.
- Bolger, N., DeLongis, A., Kessler, R.C., & Wethington, E. (1989). The contagion of stress across multiple roles. *Journal of Marriage and the Family, 51*, 175-183.

- Bond, J.T., Galinsky, E., & Swanberg, J.E. (1998). *The 1997 National Study of the Changing Workforce*. New York: Families and Work Institute.
- Bornstein, M., Tamis-LeMonda, C., Hahn, C., & Haynes, M. (2008). Maternal responsiveness to young children at three ages: Longitudinal analysis of a multidimensional, modular, and specific parenting construct. *Developmental Psychology, 44*, 867-874.
- Bowman, P.J. & Foreman, T.A. (1997). Instrumental and expressive family roles among African American fathers. In R.J. Taylor, J.S. Jackson, & L.M. Chatters (Eds.), *Family life in Black America* (pp. 216-247). Thousand Oaks, CA: Sage.
- Brayfield, A. (1995). Juggling jobs and kids: The impact of employment schedules on fathers' caring for children. *Journal of Marriage and the Family, 57*, 321-332.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. & Crouter, A.C. (1982). Work and family through time and space. In S. Kamerman & C. Hayes (Eds.), *Families that work: Children in a changing world* (pp. 39-83). Washington, D. C.: National Academy Press.
- Bronte-Tinkew, J., Carrano, J., & Guzman, L. (2006). The father-child relationship, parenting styles, and adolescent risk behaviors in intact families. *Journal of Family Psychology, 27*, 850-881.
- Burke, R.J. (1988). Some antecedents and consequences of work-family conflict. *Journal of Social Behavior and Personality, 3*, 287-302.
- Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior, 67*, 169-198.

- Carver, C.S., & Scheier, M.F. (1981). *Attention and self-regulation: A control-theory approach to human behavior*. New York: Springer-Verlag.
- Cazenave, N.A. (1979). Middle-income black fathers: An analysis of the provider role. *The Family Coordinator*, 28, 583-593.
- Celeux, G. & Soromenho, G. (1996). An entropy criterion for assessing the number of clusters in a mixture model. *Journal of Classification*, 13, 195-212.
- Cherlin, A. (1978). Remarriage as an incomplete institution. *American Journal of Sociology*, 84, 634-650.
- Coley, R.L. (2001). (In)visible men: Emerging research on low-income, unmarried, and minority fathers. *American Psychologist*, 56, 743-753.
- Collins, W.A. & Laursen, B. (2004). Parent-adolescent relationships and influences. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2<sup>nd</sup> ed., pp. 331-362). Hoboken, NJ: Wiley.
- Coltrane, S. (1996). *Family man*. New York: Oxford University Press.
- Conger, R.D. & Elder, G.H. (1994). *Families in troubled times*. New York: de Gruyter.
- Costigan, C.L., Cox, M.J., & Cauce, A.M. (2003). Work-parenting linkages among dual-earner couples at the transition to parenthood. *Journal of Family Psychology*, 17, 397-408.
- Cox, M.J., Owen, M.T., Henderson, V.K., & Margand, N.A. (1992). Prediction of infant-father and infant-mother attachment. *Developmental Psychology*, 28, 474-483.
- Cox, M.J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, 48, 243-267.
- Cox, M.J., Paley, B., Payne, C.C., & Burchinal, P. (1999). The transition to parenthood: Marital conflict and withdrawal and parent-infant interaction. In M. Cox & J. Brooks-Gunn



- (Eds.), *Conflict and cohesion in families: Causes and consequences* (pp. 87-104). Mahwah, NJ: Erlbaum.
- Crouter, A.C. (1984). Spillover from family to work: The neglected side of the work-family interface. *Human Relations, 37*, 425-442.
- Crouter, A.C., Bumpus, M.F., Head, M.R., & McHale, S.M. (2001). Implications of overwork and overload for the quality of men's family relationships. *Journal of Marriage and Family, 63*, 404-416.
- Crouter, A.C., Bumpus, M.F., Maguire, M.C., & McHale, S.M. (1999). Linking parents' work pressure and adolescents' well-being: Insights into dynamics in dual-earner families. *Developmental Psychology, 35*, 1453-1461.
- Crouter, A.C., Head, M.R., Bumpus, M.F., & McHale, S.M. (2001). Household chores: Under what conditions do mothers lean on daughters? *New Directions for Child and Adolescent Development, 94*, 23-42.
- Crouter, A.C., Lanza, S.T., Pirretti, A., Goodman, W.B., Neebe, E., & The Family Life Project Key Investigators (2006). The O\*Net jobs classification system: A primer for family researchers. *Family Relations, 55*, 461-472.
- Crouter, A.C., Perry-Jenkins, M., Huston, T.L. & McHale, S.M. (1987). Processes underlying father involvement in dual-earner and single-earner families. *Developmental Psychology, 23*, 431-440.
- Daly, K.J. (1996). Spending time with the kids: Meanings of family time for fathers. *Family Relations, 45*, 466-476.
- Davis, K.D., Crouter, A.C., & McHale, S.M. (2006). Implications of shift work for parent-adolescent relationships in dual-earner families. *Family Relations, 55*, 450-460.

- Devins, G.M., & Orme, C.M. (1985). Center for epidemiologic studies depression scale. In D.J. Keyser, and R.C. Sweetland (Eds.), *Test critiques*, (pp. 144-160). Kansas City, MO: Test Corporation of America.
- Dill, B.T. (2001). Rediscovering rural America. In Blau, J.R. (Ed.), *Blackwell companions to sociology* (pp. 196-210). Malden, MA: Blackwell Publishing.
- Dilworth, J.L. (2004). Predictors of negative spillover from family to work. *Journal of Family Issues*, 25, 241-261.
- Doherty, W.J., Kouneski, E.F., & Erikson, M.F. (1998). Responsible fathering: An overview and conceptual framework. *Journal of Marriage and the Family*, 60, 277-292.
- Draper, P. (1998). *Why should fathers father?* In A Booth & A.C. Crouter (Eds.), *Men in families: When do they get involved? What difference does it make?* (pp. 111-122). Mahwah, NJ: Lawrence Erlbaum.
- Dubowitz, H., Black, M.M., Cox, C.E., Kerr, M.A., Litrownik, A.J., & Radhakrishna, A. et al. (2001). Father involvement and children's functioning at age 6 years: A multisite study. *Child Maltreatment*, 6, 300-309.
- Duursma, E., Pan, B.A., & Raikes, H. (2008). Predictors and outcomes of low-income fathers' reading with their toddlers. *Early Childhood Research Quarterly*, 23, 351-365.
- Eby, L.T., Casper, W.J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). *Work and family research in IO/OB: Content analysis and review of the literature (1980-2002)*. *Journal of Vocational Behavior*, 66, 124-197.
- Fagan, J. (1998). Correlates of low-income African American and Puerto Rican fathers' involvement with their children. *Journal of Black Psychology*, 24, 351-367.

- Franche, R.L., Williams, A., Ibrahim, S., Grace, S.L., Mustard, C., Minore, B., et al. (2006). Path analysis of work conditions and work-family spillover as modifiable workplace factors associated with depressive symptomatology. *Stress and Health, 22*, 91-103.
- Frone, M.R. (2003). Work-family balance. In J.C. Quick & L.E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (pp. 143-162). Washington, DC: American Psychological Association.
- Frone, M.R., Russell, M., & Barnes, G.M. (1996). Work-family conflict, gender, and health-related outcomes: A study of employed parents in two community samples. *Journal of Occupational Health Psychology, 1*, 57-69.
- Frone, M.R., Russell, M., & Cooper, M.L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77*, 65-78.
- Gibbs, R., Kusmin, L., & Cromartie, J. (2005). Low-skill employment and the changing economy of rural America. Washington, DC: U.S. Government Printing Office.
- Goldberg, W.A., Clarke-Stewart, K.A., Rice, J.A., & Dellis, E. (2002). Emotional energy as an explanatory construct for fathers' engagement with their infants. *Parenting: Science and Practice, 2*, 379-408.
- Goodman, W.B., Crouter, A.C., Lanza, S.T., Cox, M.J., & The Family Life Project Key Investigators (2008). Paternal work characteristics and father-infant interactions in low-income, rural families. *Journal of Marriage and Family, 70*, 640-653.
- Grandey, A.A. & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior, 54*, 350-370.

- Greenberger, E., O'Neil, R., & Nagel, S.K. (1994). Linking workplace and homeplace: Relations between the nature of adults' work and their parenting behaviors. *Developmental Psychology, 30*, 990-1002.
- Greenhaus, J.H. & Beutell, N.J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*, 76-88.
- Grossman, F.K., Pollack, W.S., & Golding, E. (1988). Fathers and children: Predicting the quality and quantity of fathering. *Developmental Psychology, 24*, 82-91.
- Grych, J.H. (2002). Marital relationships and parenting. In M. Bornstein (Ed.), *Handbook of parenting: Vol. 4: Social conditions and applied parenting* (pp. 203-226). Mahawah, NJ: Erlbaum.
- Grzywacz, J.G. (2000). Work-family spillover and health during midlife: Is managing conflict everything? *American Journal of Health Promotion, 14*, 236-243.
- Grzywacz, J.G., & Bass, B.L.. (2003). Work, family, and mental health: Testing different models of work-family fit. *Journal of Marriage and Family, 65*, 248-262.
- Grzywacz, J.G., & Marks, N.F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology, 5*, 111-126.
- Harris, K.M., Furstenberg, F.F., & Marmer, J.K. (1998). Paternal involvement with adolescents in intact families: The influence of fathers over the life course. *Demography, 35*, 201-216.
- Hofferth, S.L. (2003). Race/ethnic differences in father involvement in two-parent families. *Journal of Family Issues, 24*, 185-216.

- Hoffman, L.W., & Kloska, D.D. (1995). Parents' gender-based attitudes toward marital roles and child rearing: Development and validation of new measures. *Sex Roles, 32*, 273-295.
- Hossain, Z. & Roopnarine, J.L. (1994). African-American fathers' involvement with infants: Relationship to their functioning style, support, education, and income. *Infant Behavior and Development, 17*, 175-184.
- Huston, T.L., McHale, S.M., & Crouter, A.C. (1986). Changes in the marital relationship during the first year of marriage. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 109-132). Hillsdale, NJ: Erlbaum.
- Jain, A., Belsky, J., & Crnic, K. (1996). Beyond fathering behaviors: Types of dads. *Journal of Family Psychology, 10*, 431-442.
- Jarrett, R.L., Roy, K., & Burton, L.M. (2002). Fathers in the "hood": Insights from qualitative research on low-income African American men. In C.S. Tamis-LeMonda & N. Cabrera (Eds.), *Handbook on father involvement: Multidisciplinary perspectives* (pp. 211-248). Mahwah, NJ: Erlbaum.
- Johnson, D.R., White, L.K., Edwards, J.N., & Booth, A. (1986). Dimensions of marital quality: Toward methodological and conceptual refinement. *Journal of Family Issues, 7*, 31-49.
- Kane, K. & Garber, J. (2004). The relations among depression in fathers, children's psychopathology, and father-child conflict: A meta-analysis. *Clinical Psychology Review, 24*, 339-360.
- Kanter, R.M. (1977). *Work and family in the United States: A critical review and agenda for research and policy*. New York: Sage.
- Kelly, R.F. & Voydanoff, P. (1985). Work/family role strain among employed parents. *Family Relations, 34*, 367-374.

- Keene, J.R. & Reynolds, J.R. (2005). The job costs of family demands: Gender differences in negative family-to-work spillover. *Journal of Family Issues*, 26, 275-299.
- Kossek, E.E. & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology*, 83, 139-149.
- Lamb, M.E. (1997). *The role of the father in child development* (3<sup>rd</sup> ed.). New York: Wiley.
- Lamb, M.E., Chuang, S.S., & Hwang, C.P. (2004). Internal reliability, temporal stability, and correlates of individual differences in paternal involvement: A 15-year longitudinal study in Sweden. In R.D. Day & M.E. Lamb (Eds.), *Conceptualizing and measuring father involvement* (pp. 129-148). Mahwah, NJ: Erlbaum.
- Lamb, M.E., Pleck, J.H., Charnov, E.L., & Levine, J.A. (1987). A biosocial perspective on paternal behavior and involvement. In J.B. Lancaster, J. Altman, A. Rossi, & L.R. Sherrod (Eds.), *Parenting across the lifespan: Biosocial perspectives* (pp. 111-142). New York: Academic.
- Lambert, S.J. (2009). Making a difference for hourly employees. In A.C. Crouter & A. Booth (Eds.), *Work-life policies* (pp. 169-195). Washington D.C.: The Urban Institute.
- Lambert, S.J. (1999). Lower wage workers and the new realities of work and family. *The Annals of the American Academy of Political and Social Science*, 562, 174-190.
- Lanza, S.T., Flaherty, B.P., & Collins, L.M. (2003). Latent class and latent transition analysis. In J.A. Schinka & W.F. Velicer (Eds.), *Handbook of psychology (Vol. 2): Research methods in psychology* (pp. 663-685). Hoboken, NJ: Wiley.
- Lo, Y., Mendell, N.R., & Rubin, D.B. (2001). Testing the number of components in a normal mixture. *Biometrika*, 88, 767-778.

- Manning, W.D. (2002). The implications of cohabiting for children's well-being. In A. Booth and A.C. Crouter (Eds.), *Just living together: Implications of cohabitation on families, children, and social policy* (pp. 121-152). Mahwah, NJ: Erlbaum.
- Marks, S.R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, *42*, 921-936.
- Marsiglio, W. (1991). Paternal engagement activities with minor children. *Journal of Marriage and the Family*, *53*, 973-986.
- Marsiglio, W., Amato, P., Day, R.D., & Lamb, M.E. (2000). Scholarship on Fatherhood in the 1990s and beyond. *Journal of Marriage and the Family*, *62*, 1173-1191
- McAdoo, J.L. (1993). The roles of African American fathers: An ecological perspective. *Families in Society*, *74*, 28-35.
- McBride, B.A. & Rane, T.R. (1997). Role identity, role investments, and paternal involvement: Implications for parenting programs for men. *Early Childhood Research Quarterly*, *12*, 173-197.
- McBride, B.A., Schoppe, S.J., Ho, M., & Rane, T.R. (2004). Multiple determinants of father involvement: An exploratory analysis using the PSID-CDS data set. In R.D. Day & M.E. Lamb (Eds.), *Conceptualizing and measuring father involvement* (pp. 321-340). Mahwah, NJ: Erlbaum.
- McHale, S.M., Crouter, A.C., Kim, J., Burton, L.M., Davis, K.D., et al. (2006). Mothers' and fathers' racial socialization in African American families: Implications for youth. *Child Development*, *77*, 1387-1402.
- McKinnon, J.D. & Bennett, C.E. (2005). We the people: Blacks in the United States. Retrieved June 4, 2009 from [www.census.gov/prod/2005pubs/censr-25.pdf](http://www.census.gov/prod/2005pubs/censr-25.pdf).

- McLoyd, V.C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, *53*, 185-204.
- Menaghan, E.G. & Parcel, T.L. (1995). Social sources of change in children's home environments: The effects of parental occupational experiences and family conditions. *Journal of Marriage and the Family*, *57*, 69-84.
- Milkie, M.A., Mattingly, M.J., Nomaguchi, K.M., Bianchi, S.M., & Robinson, J.P. (2004). The time squeeze: Parental statuses and feelings about time with children. *Journal of Marriage and Family*, *66*, 739-761.
- Miller, J.F. and Chapman, R.S. (1986). *SALT: Systematic Analysis of Language Transcripts Manual*, University of Wisconsin, Madison.
- Moos, R.H. (1986). *Work environment scale manual (2<sup>nd</sup> ed.)*. Palo Alto, CA: Consulting Psychologists Press.
- Muthén, B.O. (2001). Latent variable mixture modeling. In G.A. Marcoulides & R.E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* (pp. 1-33). Mahwah, NJ: Erlbaum.
- Muthén, B.O. & Muthén, L.K. (2007). *Mplus user's guide* (4<sup>th</sup> ed). Los Angeles, CA: Muthén, & Muthén.
- Muthén, B.O. & Muthén, L.K. (2008). Mplus version 5.2 [Computer software]. Los Angeles, CA: Muthén, & Muthén.
- Newcombe, N.S. (2003). Some controls control too much. *Child Development*, *74*, 1050-1052.
- NICHD Early Child Care Research Network (2000). Factors associated with fathers' caregiving activities and sensitivity with young children. *Journal of Family Psychology*, *14*, 200-219.



- NICHD Early Child Care Research Network (2004). Fathers' and mothers' parenting behavior and beliefs as predictors of children's social adjustment in the transition to school. *Journal of Family Psychology, 18*, 628-638.
- Nugent, J.K. (1991). Cultural and psychological influences on the father's role in infant development. *Journal of Marriage and the Family, 53*, 475-485.
- Palkovitz, R. (2005). Involved fathering and child development: Advancing our understanding of good fathering. In C. S. Tamis-LeMonda & N. Cabrera (Eds.), *Handbook of father involvement: Multidisciplinary perspectives* (pp. 119-140). Mahwah, NJ: Erlbaum.
- Parke, R.D. (2002). Fathers and families. In M. Bornstein (Ed.), *Handbook of parenting: Vol. 3: Being and becoming a parent* (pp. 27-73). Mahwah, NJ: Erlbaum.
- Parke, R.D., Morris, K., Schofield, T., Leidy, M., Miller, M., & Flyr, M. (2006). Parent-child relationships: Contemporary perspectives. In P. Noller & J.A. Feeney (Eds.), *Close relationships: Functions, forms and processes* (pp. 89-110). Hove, England: Taylor & Francis.
- Perrucci, R., MacDermid, S., King, E., Tang, C., Brimeyer, T., Ramadoss, K., et al. (2007). The significance of shift work: Current status and future directions. *Journal of Family Economic Issues, 28*, 600-617.
- Perry-Jenkins, M., Repetti, R.L., & Crouter, A.C. (2000). Work and family in the 1990s. *Journal of Marriage and Family, 62*, 981-998.
- Pleck, J.H. (1997). Paternal involvement: Levels, sources, and consequences. In M.E. Lamb (Ed.), *The role of the father in child development* (3<sup>rd</sup> ed., pp. 66-103). New York: Wiley.

- Pleck, J.H. & Masciadrelli, B.P. (2004). Paternal involvement by U.S. residential fathers: Levels, sources, and consequences. In M.E. Lamb (Ed.), *The role of the father in child development* (4<sup>th</sup> ed., pp. 222-271). New York: Wiley.
- Power, T.G. & Parke, R.D. (1983). Patterns of mother and father play with their 8-month-old infant: A multiple analyses approach. *Infant Behavior & Development*, 6, 453-459.
- Radloff, L.S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Rand, W.M. (1971). Objective criteria for the evaluation of clustering methods. *Journal of the American Statistical Association*, 66, 846-850.
- Repetti, R.L. (1994). Short-term and long-term processes linking job stressors to father-child interaction. *Social Development*, 3, 1-15.
- Richters, J.E. (1997). The Hubble hypothesis and the developmentalist's dilemma. *Development and Psychopathology*, 9, 193-229.
- Roeder, K., Lynch, K.G., & Nagin, D.S. (1999). Modeling uncertainty in latent class membership: A case study in criminology. *Journal of the American Statistical Association*, 94, 766-776.
- Roopnarine, J.L. (2004). African American and African Caribbean fathers: Level, quality, and meaning of involvement. In M.E. Lamb (Ed.), *The role of the father in child development* (4<sup>th</sup> ed., pp. 58-97). New York: Wiley.
- Rowe, M.L., Coker, D., & Pan, B.A. (2004). A comparison of fathers' and mothers' talk to toddlers in low-income families. *Social Development*, 13, 278-291.

- Salem, D.A., Zimmerman, M.A., & Notaro, P.C. (1998). Effects of family structure, family process, and father involvement on psychosocial outcomes among African American adolescents. *Family Relations, 47*, 331-341.
- SAS Institute (2003). SAS version 9.1 [Computer software]. Cary, NC: SAS Institute, Inc.
- Scarr, S. (1992). Developmental theories for the 1990s: Development and individual differences. *Child Development, 63*, 1-19.
- Schafer, J.L. & Graham, J.W. (2002). Missing data: Our view of state of the art. *Psychological Methods, 7*, 147-177.
- Schafer, M.T. & Olsen, D.H. (1981). Assessing Intimacy: The Pair Inventory. *Journal of Marital and Family Therapy, 7*, 640-653.
- Staines, G.L. (1980). Spillover versus compensation: A review of the literature on the relationship between work and nonwork. *Human Relations, 33*, 111-129.
- Stewart, W. & Barling, J (1996). Father work experiences effect children's behaviors via job-related affect and parenting behaviors. *Journal of Organizational Behavior, 17*, 221-232.
- Straus, M.A. (1990). The Conflict Tactics Scales and its critics: An evaluation and new data on validity and reliability. In M.A. Straus and R.J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 49-73). New Brunswick, NJ: Transaction Publishers.
- Tamis-LeMonda, C.S., Shannon, J.D., Cabrera, N.J., & Lamb, M.E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development, 75*, 1806-1820.
- Thompson, E.H., & Pleck, J.H. (1986). The structure of male role norms. *American Behavioral Scientist, 29*, 531-543.

- Toth, J.F. & Xu, X. (1999). Ethnic and cultural diversity in fathers' involvement. *Youth & Society, 31*, 76-99.
- U.S. Department of Labor (2006). *Women in the labor force: A databook*. Retrieved Jun 4, 2009 from <http://www.bls.gov/cps/wlf-databook2006.htm>.
- van Horn, M.L., Bellis, J.M., & Snyder, S.W. (2001). Family Resource Scale – Revised: Psychometrics and validation of a measure of family resources in a sample of low-income families. *Journal of Psychoeducational Assessment, 19*, 54-68.
- Vernon-Feagans, L., Pancsofar, N., Willoughby, M., Odom, E., Quade, A., Cox, M., & The Family Life Project Key Investigators (2008). Predictors of maternal language to infants during a picture book task in the home: Family SES, child characteristics and the parenting environment. *Journal of Applied Developmental Psychology, 29*, 213-226.
- Volling, B. & Belsky, J. (1991). Multiple determinants of father involvement during infancy in dual-earner and single-earner families. *Journal of Marriage and the Family, 53*, 461-474.
- von Eye, A. & Bogat, G.A. (2006). Person-oriented and variable-oriented research: Concepts, results, and development. *Merrill-Palmer Quarterly, 52*, 390-420.
- Voydanoff, P. (2005). The differential salience of family and community demands and resources for family-to-work conflict and facilitation. *Journal of Family and Economic Issues, 26*, 395-417.
- Wayne, J.H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work-family experience: Relationship of the big five to work-family conflict and facilitation. *Journal of Vocational Behavior, 64*, 108-130.
- Yeung, W.J., Sandberg, J.F., Davis-Kean, P.E., & Hofferth, S.L. (2001). Children's time with fathers in intact families. *Journal of Marriage and Family, 63*, 136-154.

Zimmerman, M.A., Salem, D.A., & Maton, K.I. (1995). Family structure and psychosocial correlates among urban African American adolescent males. *Child Development, 66*, 1598-1613.

APPENDIX

Table 1

*Youth Activities List for Daily Phone Interviews*

<b>BOX A -- HOUSEHOLD TASKS</b>
1. Do dishes
2. Care for a pet
3. Cooking or baking
4. Take out garbage or recycling
5. Vacuum, dust, straighten up or wash windows
6. Work outdoors
7. Upkeep of car
8. Shopping for food
9. Run errands
10. Small repairs around the house
11. Laundry
12. Pick up own room
13. Family finances
14. Moving house
15. Work at a paid job outside of home
19. Other household activities

<b>BOX B -- HOME AND PERSONAL ACTIVITIES</b>
20. Eat a meal or snack
21. Do homework
22. Read books or magazines, newspapers, go to the library, etc.
23. Write letters, stories or poems
24. Religious activities
25. Health appointments
26. Listen to music
27. Talk on phone ( <i>other than this call</i> )
28. Personal care
29. Other home and personal activities

<b>BOX C -- INVOLVEMENT IN ATHLETIC ACTIVITIES</b>
30. Participate on a sports team
31. Swimming or diving team
32. Gymnastics team or cheerleading
33. Dance
34. Work out
35. Boating
36. Skiing or snowboarding
37. Ice skate ( <b><u>except</u></b> ice hockey)
38. Play/practice sports – <b><u>not as</u></b> organized team
39. Other athletic activities

<b>BOX D -- GAMES &amp; COMPUTERS</b>
40. Board games, puzzles, cards
41. Play with dolls or stuffed animals
42. Play with toy vehicles or <b>action figures</b>
43. Play computer or video games
44. Do homework on computer
45. E-mail or Instant messaging
46. Internet "surfing"; <b><u>not</u></b> homework related
48. Other computer activities
49. Other games

<b>BOX E -- OUTDOOR ACTIVITIES</b>
50. Go for a walk or hike
51. Biking, scootering
52. Outdoor play
53. Hunting, fishing, gun shooting practice
54. Rollerblading/-skating
55. Skateboarding or longboarding
56. Camping
57. Go swimming ( <b><u>not</u></b> part of a team)
58. Motor biking, 4-wheeling
59. Other outdoor activities



<b>BOX F -- HOBBIES AND ACTIVITIES</b>
60. Collect things
61. Draw, paint, color, sculpture (e.g., clay), or photography
62. Play a musical instrument
63. Knit, sew, crochet, or other handicrafts; make decorations
64. Participate in extracurricular activities at school
65. Build things
66. Drama or theater
68. Participate in extracurricular activities in community
69. Other hobbies and activities

<b>BOX G -- ENTERTAINMENT</b>
70. Watch sports on TV
71. Watch educational programs on TV
72. Watch other TV, videos or DVD
73. <b>Go to</b> watch a movie
74. <b>Go to</b> watch sports events
75. Go shopping for fun
76. <b>Go to</b> concert, dance, theater, or other performance
77. Go to a party
78. Go out to eat
79. Other entertainment

<b>BOX H -- VISITING AND HANGING OUT</b>
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80. My house
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81. Mall, shopping center, "downtown", or other public place
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82. Friend's / relative's house
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83. Driving around
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84. Take a nap; rest
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85. Serious / important conversation with parent(s)
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86. <b>Go to</b> babysitter/child care
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89. Other hanging out / visiting
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<b>BOX I -- FAMILY CARE</b>
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90. Care for a child
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91. Care for elderly or disabled adult
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## CURRICULUM VITAE

W. BENJAMIN GOODMAN

### **Education**

- 2000 B.A., Psychology, University of North Carolina at Chapel Hill  
2005 M.S., Human Development and Family Studies, The Pennsylvania State University  
2009 Ph. D., Human Development and Family Studies, The Pennsylvania State University

### **Selected Research and Teaching Experience**

- 2003-2009 Research Assistant, *The Family Life Project*  
2008-2009 Research Assistant, *Hotel Work and Well-Being Project*  
2009 Research Assistant, *Family, Work, & Health Project*  
2008 Instructor, HDFS 229, *Infant and Child Development*, Penn State

### **Selected Presentations**

- Goodman, W. B., Crouter, A. C., & Lanza, S. T., & The Family Life Project Key Investigators (2008). Father “good” and bad” jobs: Links to Parental Relationship Quality. Paper presented at the annual meeting of the National Council on Family Relations, Little Rock, AR.
- Goodman, W. B., Crouter, A. C., Lanza, S. T., Cox, M. J., & Vernon-Feagans, L., & The Family Life Project Key Investigators (2007). Paternal work experiences and father-infant interactions: A latent class analysis. Paper presented at the annual meeting of the National Council on Family Relations, Pittsburgh, PA.
- Goodman, W. B., Crouter, A. C., Lanza, S. T., & Cox, M. J., & The Family Life Project Key Investigators (2007). Paternal work characteristics and the quality of father-infant interactions in low-income, rural families. Paper presented at the biannual meeting of the Society for Research in Child Development, Boston, MA.

### **Publications**

- Goodman, W. B., Crouter, A. C., & The Family Life Project Key Investigators (2009). Longitudinal associations between maternal work stress, negative work-family spillover, and depressive symptoms. *Family Relations*, 58, 245-258.
- Crouter, A. C., & Goodman, W. B. (2009). Work and family conditions that give rise to fathers’ knowledge of children’s daily activities. In J. Hill & R. Crane (Eds.), *Handbook of Families and Work: Interdisciplinary Perspectives* (pp. 287-304). Lanham, MD: University Press of America.
- Davis, K. D., Goodman, W. B., Pirretti, A., & Almeida, D. M. (2008). Nonstandard work schedules, perceived family well-being, and daily stressors. *Journal of Marriage and Family*, 70, 991-1003.
- Goodman, W. B., Crouter, A. C., Lanza, S. T., Cox, M. J., & The Family Life Project Key Investigators (2008). Paternal work characteristics and father-infant interaction quality in low-income, rural families. *Journal of Marriage and Family*, 70, 640-653.
- Crouter, A. C., Lanza, S. T., Pirretti, A., Goodman, W. B., Neebe, E., & The Family Life Project Key Investigators (2006). The O\*Net jobs classification system: A primer for family researchers. *Family Relations*, 55, 461-472.