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WORKPLACE FLEXIBILITY, FAMILY RELATIONSHIPS, AND FAMILY RESOURCES  
FOR SINGLE- AND TWO-PARENT HOUSEHOLDS

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BY

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To Hyeseung, Mom, and Dad

## TABLE OF CONTENTS

LIST OF TABLES.....	v
LIST OF FIGURES .....	viii
ACKNOWLEDGEMENTS.....	ix
ABSTRACT.....	xi
CHAPTER I: INTRODUCTION.....	1
CHAPTER II: BACKGROUND AND LITERATURE REVIEW .....	9
CHAPTER III: METHODS.....	28
CHAPTER IV: DESCRIPTIVE ANALYSES .....	40
CHAPTER V: WORKPLACE FLEXIBILITY AND COUPLES' RELATIONSHIP QUALITY .....	52
CHAPTER VI: WORKPLACE FLEXIBILITY AND PARENT-CHILD INTERACTION .....	73
CHAPTER VII: DISCUSSION AND CONCLUSION.....	90
APPENDICES .....	109
APPENDIX A. MEASUREMENTS.....	110
APPENDIX B. MULTIVARIATE MODELS WITH INDIVIDUAL FLEXIBILITY INDICATOR .....	116
APPENDIX C. THE ASSOCIATION BETWEEN WORKPLACE FLEXIBILITY AND PARENT-CHILD INTERACTION FOR MOTHERS FROM TWO-PARENT HOUSEHOLDS. ....	121
APPENDIX D. INTERACTION RESULTS OF HOUSEHOLD TYPE AND INCOME .....	122
APPENDIX E. SENSITIVE TEST FOR PART-TIME EMPLOYMENT AND HOUSEHOLD INCOME.....	127
APPENDIX F. THE DISTRIBUTION OF OCCUPATION TYPES ACROSS WORKING FROM HOME AMONG LOW-INCOME HOUSEHOLDS.....	130
REFERENCES .....	133

## LIST OF TABLES

TABLE 4.1. Descriptive Characteristics of Mothers.....	40
TABLE 4.2. Descriptive Characteristics of Resident Fathers.....	45
TABLE 4.3. Workplace Flexibility across Household Type at Wave 2.....	50
TABLE 4.4. Workplace Flexibility and Average Work Hours at Wave 2.....	50
TABLE 5.1. The Association between Workplace Flexibility and Couples' Relationship Happiness .....	53
TABLE 5.2. The Association between Workplace Flexibility and Couples' Interaction.....	60
TABLE 5.3. Interaction Effect of Workplace Flexibility with Household Type for Resident Fathers.....	67
TABLE 5.4. The Association between Working from Home and Couples' Negative interaction for Fathers.....	68
TABLE 6.1. The Association between Workplace Flexibility and Social-recreational Interaction.....	73
TABLE 6.2. The Association between Workplace Flexibility and Basic care Interaction.....	78
TABLE 6.3 Interaction Effect of Workplace Flexibility with Household Type for Mothers.....	83
TABLE 6.4. Interaction Effect of Workplace Flexibility with Household Income for Mothers.....	85
TABLE 6.5. Interaction Effect of Workplace Flexibility with Household Income for Fathers.....	86
TABLE 7.1 Summary of Findings from All models.....	91
TABLE A.1. List of Focal Measures .....	110
TABLE A.2. Availability of Key Measures .....	115
TABLE B.1. Individual Workplace Flexibility and Relationship Happiness.....	116

TABLE B.2. Individual Workplace Flexibility and Couples' Negative Interaction.....	117
TABLE B.3. Individual Workplace Flexibility and Couples' Positive Interaction...	118
TABLE B.4. Individual Workplace Flexibility and Social-recreational Interaction...	119
TABLE B.5. Individual Workplace Flexibility and Basic Care Interaction.....	120
TABLE C.1. The Association between Workplace Flexibility and Parent-child Interaction for Mothers from Two-parent Households .....	121
TABLE D.1. Workplace Flexibility and Couples' Relationship Quality by Household Type among Fathers.....	122
TABLE D.2. Workplace Flexibility and Couples' Relationship Quality by Household Income among Mothers.....	123
TABLE D.3. Workplace Flexibility and Couples' Relationship Quality by Household Income among Fathers.....	124
TABLE D.4. Workplace Flexibility and Parent-child Interaction by Household Type among Mothers.....	125
TABLE D.5. Workplace Flexibility and Parent-child Interaction by Household Type among Fathers.....	125
TABLE D.6. Workplace Flexibility and Parent-child Interaction by Household Income among Mothers.....	126
TABLE D.7. Workplace Flexibility and Parent-child Interaction by Household Income among Fathers.....	126
TABLE E.1. Part-time Employment (<30 hours per week) and Couples' Relationship Quality for Mothers.....	127
TABLE E.2. Part-time Employment (<30 hours per week) and Couples' Relationship Quality for Fathers.....	127
TABLE E.3. Part-time Employment (<30 hours per week) and Parent-child Interaction for Mothers.....	128
TABLE E.4. Part-time Employment (<30 hours per week) and Parent-child Interaction for Fathers.....	128

TABLE E.5. Interaction Effect of Workplace Flexibility with Poor Household (< 100 percent poverty level) for Mothers.....	129
TABLE E.6. Interaction Effect of Workplace Flexibility with Poor Household (< 100 percent poverty level) for Fathers.....	129
TABLE F.1. The Distribution of Occupation Types by Flextime for Low-income Households at Wave 2.....	130
TABLE F.2. The Distribution of Occupation Types by Working from Home for Low-income Households at Wave 2.....	131
TABLE F.3. The Distribution of Occupation Types by Part-time Work for Low-income Households at Wave 2.....	132

## LIST OF FIGURES

FIGURE 5.1. Moderating Associations between Workplace Flexibility and Couples' relationship Quality by Gender .....	59
FIGURE 5.2. Moderating Associations between Working from Home and Couples' Negative Interaction by Gender .....	66
FIGURE 5.3. Flextime and Couples' Negative Interaction by Household Type among Fathers.....	68
FIGURE 5.4. Working from Home and Couples' Negative interaction by Household Income among Fathers.....	70
FIGURE 6.1. Moderating Association between Working from home and Social-recreational Interaction by Gender .....	78
FIGURE 6.2. Moderating Association between Working from home and Basic Care Interaction by Gender.....	82
FIGURE 6.3. Part-time Employment and Basic Care Interaction by Household Type among Mothers.....	84
FIGURE 6.4. Moderating Association between Workplace Flexibility and Parent-child Interaction by Household Income for Mothers.....	86
FIGURE 6.5. . Moderating Association between Workplace Flexibility and Parent-child Interaction by Household Income for Fathers.....	87



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## ABSTRACT

In light of the rapid increase in the number of working mothers and dual-earner families, workplace flexibility—including the availability of flextime, the ability to work from home, and part-time employment—has become a crucial support for working parents with young children in balancing work and family responsibilities. Numerous studies suggest the benefits of workplace flexibility for individuals' well-being and their work-family conflict; however, research on how workplace flexibility influences relationships between family members is scarce. Guided by the perspectives of boundary-spanning resources (Voydanoff, 2005), the current study examined the associations of three types of workplace flexibility (i.e., access to flextime, ability to work from home, and part-time employment) with couples' relationship quality and parent-child interaction among working parents with young children. The study also investigated these associations in the context of gender, household structure, and household income.

The study used data from the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), a nationally representative study of children born in the United States in 2001. The sample consisted of children's mothers ( $N=7,700$ ) and resident fathers ( $N=3,800$ ), who participated in the 24-month and 48-month surveys. Flextime was measured using a dichotomous indicator for availability of flextime at parents' current jobs. The ability to work from home was measured using a binary indicator of whether parents had a formal arrangement to work from home. Parents who worked fewer than 35 hours per week were considered part-time workers. Measures of couples' relationship quality consisted of three scales: relationship happiness and scales of positive partner interaction (e.g., calmly discussing something and laughing together) and negative interaction (e.g., arguing about house chores or leisure time). Parent-child interaction was measured by social-recreational interaction (e.g., reading books, telling stories, playing

games, and taking children out for a walk) and basic care interaction (e.g., changing diapers, dressing the children, and preparing meals). To address omitted variable bias, the study sequentially used 1) a pooled Ordinary Least Square regression model with extensive controls for demographic and employment characteristics, 2) a lagged-dependent model that additionally controlled for prior outcomes, and 3) a fixed-effect model, separately, for mothers and resident fathers. The study conducted interaction analyses to test moderating associations by gender, household structure (dual-earner parents vs. single-earner parents and single parent households vs. two-parent households), and household income (low-income vs. mid- and high-income households).

The study found that, among mothers, working from home was consistently associated with greater relationship quality for couples and more frequent social-recreational interactions with their children. These positive associations were particularly pronounced among low-income mothers. Mothers' part-time employment was also associated with greater relationship happiness and more frequent parent-child interactions while part-time employment may not be beneficial for parent-child interaction among single mothers. Flextime for mothers was not associated with couples' relationship happiness and parent-child interaction, though it was associated with more frequent positive interactions for couples.

Among resident fathers, flextime was consistently associated with higher couples' relationship quality for couples and this positive association was stronger for dual-earner fathers. Flextime was also positively associated with basic care interaction, particularly for low-income fathers. However, fathers' ability to work from home was associated with an increase in negative interaction for couples and this was particularly stronger for low-income fathers. Fathers' part-

time employment was associated with more frequent parent-child interactions, while this positive effect was reduced for low-income fathers.

The findings suggest that distinctive types of workplace flexibility influence family relationship outcomes for mothers and fathers in varying situations. Moreover, it may work differently across household structure, and household income. The implications of workplace flexibility for parents in the context of work-family policies and social work were discussed.

## CHAPTER I: INTRODUCTION

### **Introduction**

As the numbers of single parents and mothers employed outside the home have increased steadily, the American family has transformed rapidly. Labor force participation by mothers soared from 47 percent in 1975 to 71 percent in 2007 (Galinsky, Aumann, & Bond, 2013). In addition, single mothers among households with children under age 18 years more than tripled from 7 percent in 1960 to 25 percent in 2011 (Wang, Parker, & Taylor, 2013). As a result, the structure of households with children has shifted from traditional single-earner households to predominantly dual-earner and working single parent households. According to the Current Population Survey, dual-earner families rose from 33 percent of two-parent families in 1967 to 60 percent in 2014, and employed single parents increased from 47 to 75 percent of single parent families in the same period (Fox, Han, Ruhm, & Waldfogel, 2013; U.S. Bureau of Labor Statistics, 2015).

With these changes in household structure and employment demands outside the home, American working families have experienced greater time pressures and conflicts balancing work and family responsibilities (Bianchi, 2011; Nomaguchi, 2009). Workers reporting not spending enough time with their children and their partner or spouse substantially increased from 66 to 75 percent and from 50 to 63 percent, respectively, from 2002 to 2008 (Galinsky, Sakai, & Wigton, 2011). For example, working parents have reported having limited time to spend together, having too little time for themselves, and always feeling rushed (Bianchi, Robinson, & Milke, 2006). Working parents with young children are especially vulnerable to these time

conflicts because childcare demands and pressure to work long hours to secure financial resources increase simultaneously (Erickson et al., 2010; Kaufman & Uhlenberg, 2000).

Accommodating the dual demands of work and family responsibilities may be particularly difficult for certain groups of workers (Bianchi, 2011; Bianchi et al., 2006; Gornick & Meyers, 2003). Although working mothers and working fathers both experience time constraints, working mothers tend to have heavier family responsibilities due to disproportionately gendered caregiving demands (Gornick & Meyers, 2003). Consequently, working mothers may face especially severe pressures and stress managing work and childrearing. Research has suggested that time constraints are worse for employed single parents and parents from dual-earner households than single-earner, two-parent households, largely due to the lack of a stable childcare provider (the other partner) at home (Bianchi et al., 2006). In addition, working parents with limited family resources may encounter more challenges managing the demands of work and caregiving. Without access to reliable resources more available to mid- and high-income families (e.g., personal vehicles, standard work shifts, and stable childcare arrangements), low-income working parents contend with extensive time demands and difficulties managing day-to-day routines (Dyk, 2004; Roy et al., 2004; Tubbs, Roy, & Burton, 2005).

Given the increasing time pressures on employed parents, workplace flexibility—employees' ability to control the time, place, and duration of work—has gained attention among researchers, employers, and policy-makers and is seen as an important work benefit, especially for workers with caregiving responsibilities (Allen, Johnson, Kiburz, & Shockley, 2013; Christensen & Staines, 1990; Executive Office of the President Council of Economic Advisors (EOPCEA), 2014; Hill, Grzywacz et al., 2008; Society for Human Resource Management, 2010).

Among the diverse forms of workplace flexibility, working from home, flextime, and part-time employment have been most frequently studied.<sup>1</sup> Despite increasing attention to workplace flexibility, though, limited workers have access to such arrangements. For example, the 2008 National Study of Changing Workforce reported that only two-fifths of employees were able to choose their own work start and end times, one-eighth were allowed to work from home during regular work hours, and one-third were able to shift from full to part time (Galinsky et al., 2011). More recent data from the General Social Survey (2014) indicated that about half of U.S. workers had the ability to change their work start and end times, and almost 20 percent worked from home more than once a week.

In response to the growing public and research attention to workplace flexibility, a substantial body of literature has documented its benefits for work–family interaction and diverse work and family outcomes, such as work–family balance and conflict, employment tenure, psychological well-being, and job satisfaction (Buehler & O’Brien, 2011; Carlson, Grzywacz, & Michele, 2010; Costa, Sartori, & Akerstedt, 2006; De Menezes & Kelliher, 2011; Higgins, Duxbury, & Johnson, 2000; Hill, Jacob et al., 2008; Hill, Mårtinson, & Ferris, 2004; Jang, 2009; Scandura & Lankau, 1997; Shockley & Allen, 2007). Few studies, however, have examined the implications of flextime, working from home, and part-time employment for couples’ relationship quality and parent-child interaction. This is surprising considering the importance of relationship quality for marital well-being and parent-child interaction in children’s psychological and cognitive development (Belsky, 1984; Burchinal, Vernon-Feagans, Cox, & Key Family Life Project Investigators, 2008; Hill, 1988; Landry, Smith, Swank, Assel, & Vellet,

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<sup>1</sup> The high rates of involuntary part-time work and the accompanying lower earnings and limited work-related benefits suggest that treating part-time employment as synonymous with flexible work arrangements should be done cautiously (Lambert et al., 2012; Stratton, 1996; Tilly, 1992)



2001; Repetti, Taylor, & Seeman, 2002). Furthermore, little is known about how such associations differ across groups of workers known to experience severe time pressures, such as dual-earner parents, single parents, low-income parents, and fathers with young children. In addition, most studies on workplace flexibility have adopted cross-sectional designs, limited in their ability to draw valid conclusions about the implications of workplace flexibility on family relationships. The lack of research on the influence of work flexibility on parent-child interaction—and on different responses by subgroups of workers—merits sustained attention from work–family researchers and policy-makers.

To fill these research gaps, this dissertation focused on workplace flexibility for parents with young children. Using a representative national longitudinal dataset, the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), this study examined the extent to which three types of workplace arrangements that potentially provide employee flexibility (access to flextime, ability to work from home, and part-time employment) were associated with two essential family relationships for parents with young children, couples' relationship quality and parent-child interaction. The study further investigated the potential variations in the associations of workplace flexibility with couples' relationship quality and parent-child interaction by gender, household structure (e.g., dual-earner, single-earner, and single parent households), and household income. The specific research questions are as follows.

*(RQ1)* Are flextime, working from home, and part-time employment associated with couples' relationship quality across mothers and fathers?

*(RQ2)* Are flextime, working from home, and part-time employment associated with parent-child interaction across mothers and fathers?

(RQ3) Do the associations of the three types of workplace flexibility with couples' relationship quality and parent-child interaction vary by types of household?

(RQ4) Do the associations of the three types of workplace flexibility with couples' relationship quality and parent-child interaction vary by household income?

### **Significance of the Study**

The findings of this dissertation contribute to research and work-family policies and practices. The findings from RQ1 and RQ2 may provide knowledge on the implications of workplace flexibility on couples' and parent-child relationships and how the implications differ across mothers and fathers. These associations have been insufficiently studied in work-family research, even though couples' relationships and parent-child interaction are known to be strong predictors of marital stability and healthy child development (Erel & Burman, 1995; Gottman, 1993). The study findings advance knowledge on the implications of workplace flexibility by extending the impacts of workplace flexibility from individual well-being to diverse dimensions of family well-being.

With three forms of work arrangements (i.e., flextime, working from home, and part-time employment), the study findings contribute to the understanding of how distinctive types of workplace flexibility function across gender and families with different household structure and income. Although those three forms of workplace arrangements are conceptualized as workplace flexibility (Hill, Grzywacz et al., 2008), previous studies suggest that each type of flexible work arrangement has a unique contribution to workers' well-being (Allen et al., 2013). The present study, therefore, examines such a distinctive role for each form of flexibility on family relationships.

Despite the increasing attention to working fathers' involvement in childrearing and its positive effect on child development (Boyce et al., 2006; Forehand & Nousiainen, 1993; Sarkadi et al., 2008), research is scarce regarding how fathers' work conditions interact with couples' relationship and parent-child interaction in the context of gender and household structure. The findings of the study may advance the understanding of working fathers' role in parenting and provide evidence that informs the promotion of fathers' involvement in parenting activities.

The present study aims to produce less-biased and more generalizable findings of the associations between workplace flexibility and family relationship outcomes by using nationally representative data with advanced statistical analyses and taking advantage of the longitudinal design of the data. Most previous research on workplace flexibility in the United States has studied a specific group of workers instead of representative workers (Carlson et al., 2009; Erickson et al., 2010; Golden & Simsek, 2006; Henly & Lambert, 2014; Hughes, Galinsky, & Morris, 1992), thus limiting the generalizability of the findings to the national population. In addition, extending most previous studies that have used cross-sectional data, the current study estimates three longitudinal statistical models (pooled regression, lagged-dependent variable, and fixed-effects) to further account for omitted variable bias.

With specific attention to single parents and parents from dual-earner households, the findings from RQ3 demonstrate how workplace flexibility benefits or harms different groups of workers and suggest avenues to improve access to and use of flexibility policies and practices for those different groups of workers. Given that family demands and responsibilities vary across household structure and that single parents and dual-earner parents particularly experience greater time pressures and conflicts (Bianchi, 2011; Bianchi et al., 2006), the finding of RQ3 can deepen the knowledge of workplace flexibility in the context of household structures.

The result from RQ4 will increase our understanding of how family resources shape work-family interaction between parents and children. Working parents in low-income households struggle to meet both work and child-care demands (Daly, 2002; Roy et al., 2004). By focusing on their access to workplace resources that encourage flexibility, this study may advance knowledge on whether and how these supports help economically disadvantaged families accommodate the dual demands of work and home (Bond & Galinsky, 2006). In addition, the understanding of interaction between work and family resources and their link to family interaction informs work-family researchers of the potentially greater importance of flexibility for families with the least resources.

In response to the increasing attention to flexibility options as a solution for balancing work and family demands (EOPCEA, 2014; Society for Human Resource Management, 2010), this study examines the potential impacts of workplace flexibility on couples and parent-child interaction across gender, types of households, and household income. The study may inform the development of workplace flexibility policies. In particular, the findings of the current study can provide empirical evidence to gauge the potential implications of the policy effort of a “right to request” flexibility that allow employees to request flexible work arrangements for working parents with young children. The study findings can also help policy-makers and employers identify families at risk and strengthen their marriage stability and children’s development over the long term through workplace intervention that promotes workplace flexibility.

This study also provides social work practitioners with information on the importance of workplace support. The study findings can support social work practitioners through a better understanding the benefits and potential disadvantage of workplace flexibility. With the empirical findings, social workers can introduce such resources to their clients in need of

balancing work and caregiving demands. In addition, based on the study findings regarding economically disadvantaged families, particularly low-income parents, and single mothers, social workers can better understand the needs of such clients and advocate more effectively for their access to workplace flexibility.

## CHAPTER II: BACKGROUND AND LITERATURE REVIEW

### Conceptual Framework of Workplace Flexibility

#### Definition

Workplace flexibility is defined as “the ability of workers to make choices influencing when, where, and for how long they engage in work-related tasks” (Hill, Grzywacz et al., 2008, p. 152). It stresses workers’ *choices* to arrange the core aspects of work, particularly the timing, place, and duration of work. Hill and Grzywacz et al. (2008) identified three types of workplace flexibility. *Flextime*, or flextime, is employees’ choice of when to work. The ability to adjust work start and end times is one of the most common flextime options. With access to schedule flexibility, employees have relative freedom to decide when to begin and finish work within the core working hours. *Flexplace* is employees’ ability to choose where to perform work-related tasks. The options to telecommute and work from home are typical forms of flexplace. *Hour flexibility* is employee control over the number of working hours. Examples include part-time work arrangements and reduced work hours (Hill, Grzywacz et al., 2008).

Flexibility in all of these forms assumes that *employees* have control over such arrangements. However, it is important to note that, in some instances, workplace flexibility may not reflect workers’ choices. This is especially true in the case of involuntary part-time workers who would prefer to be in full-time employment (Lambert, Haley-Lock, & Henly, 2012; Tilly, 1992). Involuntary part-time employment may instead reflect the *employer* practice of using part-timers to reduce labor costs and meet variable staffing needs by controlling the number of

hours that employees work (Hill, Grzywacz et al., 2008; Kalleberg, 2000; Lambert & Waxman, 2005). Although this dissertation focuses on employee flexibility, some types of workplace flexibility (such as part-time employment) may also encompass employer-driven flexibility.

### **Workplace Flexibility and Work-family Outcomes**

Two theoretical perspectives suggest possible links between workplace flexibility and work–family interaction. Role conflict theory proposes that work–family conflict is an inter-role conflict when roles in the work and family domains are mutually incompatible (Greenhaus & Beutell, 1985). Time-based conflict occurs when time committed to one role makes meeting the demands of another difficult. From this perspective, workplace flexibility can be seen as a work-based resource that reduces time-based work–family conflict by better accommodating workers’ family roles and responsibilities. For example, the ability to change the timing of work makes it possible for workers to participate in family activities, such as picking up children from childcare and taking children to doctor visits. Working from home also allows workers to avoid time conflicts by saving time transitioning between the work and family domains. Focusing on the advantages of flexibility, Voydanoff (2005) conceptualized workplace flexibility as a *boundary-spanning resource*. Workplace flexibility that originates from the work domain serves as a resource in both the work and family domains, increasing workers’ perceived control over balancing the work–family boundary and improving the coordination of work and family responsibilities (Voydanoff, 2005). Temporal and spatial work flexibility makes the border between work and family domains permeable, enabling workers to perform roles in different settings and at different times (Clark, 2000). With such a flexible border, employees can choose the best way to allocate their limited time and energy between the two domains, possibly to the benefit of both (Allen et al., 2013).

Guided by the role conflict and boundary-spanning resource perspectives, abundant empirical research has examined flextime, flexible workplace, and part-time employment and their potentially positive associations with employment and family outcomes. Flextime was linked to higher levels of job satisfaction (Costa et al., 2006) and workers' perceived well-being (Jang, 2009). Flextime (i.e., an employee's input in determining his or her work schedule) was also related to less work-family conflict among retail workers (Henly & Lambert, 2014). Among white-collar workers from dual-earner households (Batt & Valcour, 2003), flexible scheduling practices (including flextime, telecommuting, and taking personal time off during work) related to lower turnover intentions. Flexible work hours were also related to higher levels of organizational commitment and job satisfaction, particularly for female workers and mothers with children younger than 18 years old (Scandura & Lankau, 1997).

Research suggests flexibility in the location of work has both benefits and challenges. A common example of workplace flexibility is home-based telecommuting where workers can work from home at least several days per month within their normal work schedules (Kirkland & Bailey, 1999). Telecommuting allows workers to balance the competing demands of work and family domains by reducing commuting time and giving them time to accommodate their family needs at home (Golden & Simsek, 2006; Kirkland & Bailey, 1999). Indeed, telecommuters in the sales business reported lower role conflicts, happier relationships with their supervisors, and higher commitment to their organizations than non-telecommuters did (Igbaria & Guimaraes, 1999). Among professional employees, telecommuting was also associated with lower work-to-family conflict (Golden & Simsek, 2006).

Some researchers, however, argue that the practice of flexible options may make boundaries between work and family too permeable, with each domain potentially interfering



with the other (Ashforth, Kreiner, & Fugate, 2000; Shockley & Allen, 2007). This boundary-blurring perspective suggests that working from home (e.g., telecommuting) removes the physical boundary between work and family domains so that family demands can interrupt work, intensifying workers' stress and work-family conflicts. Some research supports this proposition, associating telecommuting with higher levels of family-to-work conflict (Golden & Simsek, 2006) and time-based family interference with work (Lapierre & Allen, 2006). Thus, although flexible workplace is considered as a resource that supports the balance between work and family responsibilities, it may have some negative psychological implications for workers.

Part-time employment is sometimes considered another way for parents, especially working mothers with young children, to balance work and family demands by decreasing time at work (Employment Policy Foundation (EPF), 2003; Hill et al., 2004). Current Population Survey reported that women were more likely than men to work part-time and more likely to do so for reasons related to work-life balance (e.g., child-care problems, other personal or family obligations) (EPF, 2003). Part-time employment has been linked to positive well-being outcomes, particularly for female workers. Higgins et al. (2004) found that women working part-time reported less work-to-family interference, better time management, and greater life satisfaction than women with full-time positions. Buehler and O'Brien (2001) also found that mothers who were employed part-time had fewer depressive symptoms during the infancy and preschool years of their children and higher self-rated health than did non-employed mothers; they also reported less work-family conflict than did full-time working mothers.

However, part-time employment has negative economic consequences that can make it less attractive to working parents. In addition to the reduction in earnings garnered by working fewer hours, research has indicated that part-time employment is associated with wage penalties,

limited career advancement, and marginalization of female workers (Gornick & Meyers, 2003; Morrison & Robbins, 2015; Whittock, Edwards, McLaren, & Robinson, 2002). Current Population Survey reported that part-time workers were paid less per hour than full-time workers in more than half of 324 occupations (Morrison & Robbins, 2015). Part-time female workers earned over 20% less hourly than did their full-time counterparts (Gornick & Meyers, 2003). A study of part-time work and its association with workers' career among male and female nurses found that female nurses who chose to work part-time, normally because of their childcare responsibilities, fell behind male colleagues in career development and promotion prospects (Whittock et al., 2002). In addition, part-time workers have less access to medical care and retirement benefits (22% and 38%, respectively) while 88 percent of full-time workers have access to medical care and 80 percent have retirement benefits (U.S. Bureau of Labor Statistics, 2015). Given the low wages and limited fringe benefits, some part-time employment, such as involuntary part-time employment, may be considered a form of precarious employment that employers intentionally use for cost containment and flexible staffing (Kalleberg, 2000). Thus, although part-time employment might provide more time and energy for employed parents to manage family responsibilities, it is also associated with penalties in terms of wages, work benefits, and career advancement.

It is also important to understand how the *availability* and *use* of workplace flexibility may have distinctive effects on worker well-being. The present study focuses on the *availability* of flextime and working from home and the *use* of part-time employment. The availability of workplace flexibility, such as flextime and flexible work locations, may promote workers' perceived psychological control over work conditions, which improves work-family balance and worker well-being (Kelly & Moen, 2007). Based on social-exchange theory, research also

suggests that the availability of such flexible benefits may improve workers' positive attitudes toward organizations and encourage their participation in the workplace (Allen et al., 2013; Lambert, 2000). On the other hand, the use of workplace flexibility may enable workers to enact their role boundary management strategies thereby directly promoting performance in work and family domains (Allen et al., 2013). However, the enactment of workplace flexibility may also have negative consequences on the wellbeing of employees if these flexible arrangements are enforced against workers' preferences. For example, though it may promote worker involvement in family tasks, involuntary part-time employment may increase stress and conflicts at home by reducing perception of control over work conditions and family life. Therefore, in the present study, the availability of flextime and working from home may influence family interactions through enhanced perceived control; the use of part-time work may directly promote interactions between family members, such as parent-child interactions.

## **Workplace Flexibility and Family Relationships**

### **Couples' Relationship Quality**

Based on the role conflict and boundary-spanning resource perspectives, workplace flexibility may promote workers' relationships with their partner by creating more *shared time* with each other and decreasing time-based conflicts. Flexible work schedules may increase working couples' shared time by allowing workers to arrange their work schedules to accommodate their spouses' schedules, particularly among dual-earner families. For example, workers with flextime may adjust their work hours to have shared meals with their spouses. Working from home could also increase a couples' amount of shared time by ensuring that at least one of them is at home at important times of the day, such as dinner time. In addition, the use of part-time employment is

more likely than full-time employment to provide extended shared time for couples. However, part-time positions tend to reduce a family's economic resources, exacerbating financial problems and marital conflicts (Conger et al., 1990). In addition to giving couples more time together couples' shared time, the availability of flextime and working from home might improve a worker's psychological well-being and reduce work-family conflict through increased perceived control (Buehler & O'Brien 2011; Golden & Simsek, 2006; Henly & Lambert, 2014; Jang, 2009), which may thereby improve the quality of the couples' relationship.

Although a large body of research has focused on workplace flexibility and its association with work-family balance and family well-being, few empirical studies have explored the association between workplace flexibility and couples' relationship outcomes. Using data from the 1977 Quality of Employment Survey, Stains and Pleck (1984) found that access to schedule flexibility, measured by the ability to vary work schedules, was associated with higher levels of family adjustment, marital happiness and satisfaction. Hughes et al. (1992) investigated the association between job characteristics—including control over work hours—and marital quality, using a sample of 334 male and 189 female married white-collar workers. The findings suggested no meaningful relationship between control over schedules and marital quality. Due to the limited representation of the sample, however, the study did not provide conclusive evidence.

Two other empirical studies examined the association between flextime and family outcomes. Carson et al. (2010) examined the relationship of flextime—the ability to vary the start and end time of work—to performance and satisfaction in the work and family domains. They found that flextime was positively associated with workers' satisfaction with family life. Similarly, using a sample from the Global IBM Work and Life Issues Survey, Erickson et al.

(2010) found that flextime—the ability to select where and when to work—was associated with a better work-family fit, of which marital success was one indicator. As family satisfaction and marital success are proxies for couples' relationship quality, the findings from these studies suggest a positive association between flexibility and couples' relationship outcomes.

With regard to part-time employment, Rogers (1996) found that a mother's full-time work (i.e., 40 hours or more per week) was weakly associated with a lower level of marital happiness, compared to part-time work and non-employment, suggesting that mothers with a part-time arrangement have better marital quality. Buehler and O'Brien, (2011) also found that mothers with part-time work reported lower conflicts between work and family compared to those with full-time employment. This finding suggests that mothers with part-time employment may maintain a better work-family balance, thereby promoting couples' relationship quality. However, research has indicated that male workers were less satisfied with their life when they worked part-time compared to full-time because male workers may experience a loss of identity by deviating from the social norm of full-time male workers (Booth & Van Ours, 2009), suggesting the potential negative implications of part-time employment for fathers.

Based on these conceptual frameworks and empirical studies, the proposed study expects that flexible work schedule, flexible workplace, and part-time employment are associated with higher levels of relationship quality within couples.

### **Parent-child Interaction**

Research has indicated interrelations between the temporal aspects of parents' work (e.g., hours and schedules) and their interaction with their children (Brown, McBride, Bost, & Shin, 2011; Menaghan & Parcel, 1990; Presser, 1989, 2005; Roeters, Van Der Lippe, & Kluwer, 2010).

According to the conflict perspective, long work hours, inflexible work schedules, and nonstandard shifts likely increase parents' time- and strain-based conflicts, possibly reducing their time with children and their sensitivity in parenting (Greenhaus & Beutell, 1985). Flexible work arrangements, though, may reduce time-based conflicts and provide parents with the extended time their children need. In the boundary-spanning resource perspective, workplace flexibility may increase parent-child interaction by allowing workers to better perform their child-caring responsibilities (Voydanoff, 2005). For example, flexible work schedules may allow parents to take time off to attend school meetings and take children to doctor's appointments. However, flexible work schedules may not directly increase time at home because most flexibility options, such as changing the start and end times of work, require employees to complete a fixed amount of work time. If employees miss a few hours of work for family responsibilities, they need to make up the missed work at other times of the day, though this option still may enable their presence at critical times. Working from home, if allowed, likely promotes parent-child interaction by eliminating commute time and providing employees with more time to interact with their children. In this case, the boundary between work and home is (theoretically) seamless because workers are able to be physically present at home with their children. Part-time employment, unlike full-time work arrangements, can directly increase working parents' time with their children by reducing the total number of work hours.

The few empirical studies exploring the association between workplace flexibility and parent-child interaction or proxy indicators of parent-child interaction have suggested modest positive implications of workplace flexibility for parent-child interaction (Davis et al., 2015; Estes, 2005; Powell and Craig, 2015; Silver, 1993). Silver (1993) examined the association between working from home and spending time on housework and childcare. The study found

that working-class workers working mainly from home reported less interference between job and family life and performed more hours of housework and childcare (Silver, 1993). Using the Australian Time Use Survey, Powell and Craig (2015) similarly showed that frequently working from home was associated with increased time for childcare and domestic work, particularly for mothers. This possible positive association has been supported by another study examining the association of parenting time and behaviors with different forms of flexibility, including informal flextime, hours worked from home, and part-time hours (Estes, 2005). The study found that informal flexible schedules were associated with more frequent mother–child activities and that working from home and part-time employment were associated with more frequently shared meals (Estes, 2005). Regarding part-time work, a few empirical studies have indicated that mothers with part-time work allocated more time on child care and household chores compared to those with full-time employment (Buehler & O’Brien, 2011; Hill et al., 2004).

In addition, research has recognized the importance of fathers’ role in diverse domains of child development and investigated the extent to which parents’ work characteristics affects fathers’ involvement in childcare (Bonney, Kelly, & Levant, 1999; Boyce et al., 2006; Forehand & Nousiainen, 1993; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008; Volling & Belsky, 1991). Research has found that fathers are more involved with their children when they work fewer hours (Bonney et al. 1999; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001) and nonstandard shifts (Wight, Raley, & Bianchi, 2008) and receive more work–family support (Volling & Belsky, 1991). Studies have also suggested that in dual-earner couples, mothers’ greater work demands, such as long work hours and nonstandard schedules, promote fathers’ involvement in childcare (Bonney et al. 1999; Brayfield, 1995; Meteyer & Perry-Jenkins, 2010). However, less is known about how workplace flexibility is associated with fathers’ parenting

than mothers' experiences of workplace flexibility and parenting. Moreover, research is scarce on the implications workplace flexibility for parent-child interaction across different household contexts, such as gender, household structure, and household income.

### **Workplace Flexibility in the Household Context**

#### **Gender**

The present study explores gender disparities in the relationship of workplace flexibility with couples' relationship quality and parent-child interaction. Despite the rising number of paid work hours performed by mothers, caregiving and domestic work are still largely gender-biased, with mothers disproportionately taking on such responsibilities (Gornick & Meyers, 2003). Although more women have entered the labor force, they still bear primary responsibility for domestic tasks and childcare, while men assume primary responsibility for paid work in two-parent families (Daly, 2002). According to the 1965–2008 American Time Use Survey (Bianchi, 2011), fathers' time involvement in housework and childcare activities has risen over recent decades, but in 2008, mothers still spent at least twice as much time performing housework and childcare activities as fathers did (Bianchi, 2011). A study of 17 dual-earner couples also found that although a husband and a wife may negotiate how to spend their time on family activities, the wife typically orchestrates the family schedule (Daly, 2002). One husband called his wife as the “chief administrator of time who organized both the internal activities of the family and social events” (Daly, 2002, p. 332).

Given the traditional gender-normative views on women and their greater responsibility for domestic work and organization of family activities, it has been argued that workplace flexibility is more valued by and beneficial for working mothers than working fathers. For



example, using a sample from a U.S. multi-company database, Hill and Jacob et al. (2008) found that female workers value almost every flexible work option (e.g., flextime, telecommuting, part-time schedules, compressed work weeks, and job sharing) more than male workers. Male workers are less likely to use flexible work options to manage family matters. In addition, male and female workers may utilize flexible working arrangements for different purposes. Sullivan and Lewis (2001) found that male workers are more likely to use teleworking for work-related reasons, but female workers for domestic and childcare purposes to accommodate family demands. Using a sample from the European Social Survey, Hofäcker and König (2013) found an association between flexible work options (e.g., varying start and end times) and greater work–family conflict, suggesting that male workers may use flexible options to increase their work commitment. In contrast, female workers are more likely to use flexible work options to balance work–family demands, thereby reducing work–family conflict (Hofäcker & König, 2013). Lott and Chung (2016) also supported that male workers with flexibility are more likely than female workers to increase their overtime hours. Similarly, women who work from home regularly spend significantly more time on domestic work and childcare activities, while the frequency of working from home has less effect on the time men spend on such activities (Powell & Craig, 2015).

Considering the different motivations and purposes of utilizing flexible work arrangements across gender, a few studies have explored the moderating role of gender in workplace flexibility. Carlson et al. (2009) studied the relationship between schedule flexibility and work–family conflict across gender and reported a stronger association for women than men, with schedule flexibility reducing conflict more for women than men. Furthermore, in a study on gender differences in parenting, Hill, Tranby, and Moen (2013) found that workplace flexibility

initiatives increased schedule control and freed up time for mothers but not fathers, suggesting that mothers may actively utilize such increased flexibility for addressing family demands than fathers. The current study, therefore, tests the hypothesis that the associations of the three types of workplace flexibility—availability of flextime, working from home, and part-time employment—with couples' relationship quality and parent-child interaction are stronger for working mothers than working fathers.

### **Household Structure**

In studying workplace flexibility and its relation to family outcomes, it is important to consider the household structure of working parents because family demands and responsibilities vary across household structure. The increase in mothers' labor force participation and in single parent families has transformed the American household and workforce. A single-earner, two-parent family in which the father is the main breadwinner and the mother is a full-time stay-at-home parent is no longer the dominant form of U.S. households (Gornick & Meyers, 2003). In 2009, 66 percent of children lived in dual-earner or single parent families, up from about 34 percent in 1967 (Fox et al., 2013). Dual-earner parents experience greater time pressures in attempting to balance work and child rearing because they have to accommodate multiple family demands in the short time that remains after both work (Bianchi, 2011; Crouter, Perry-Jenkins, Huston, & McHale, 1987). Parents in dual-earner households report spending less time with each other and not having enough time for themselves (Bianchi et al., 2006). Moreover, more than half of mothers and fathers in dual-earner couples report work–family conflicts (Executive Office of the President Council of Economic Advisors, 2014).

Another group of workers who may be vulnerable to manage work and caregiving demands are single mothers. In addition to a high risk of poverty (U.S. Census Bureau, 2013),

single mothers are more likely to report having too little time with their children and to spend less time interacting or playing with them than married mothers (Bianchi et al., 2006). Employed single parents experience severe time poverty because the total time available for meeting work and childcare demands in a single parent household may be half of that available in two-parent families (Bianchi, 2011). Given the time pressures and conflicts in dual-earner and single parent households, these working parents likely perceive workplace flexibility as a more valuable resource and may gain more benefits from workplace flexibility if they have access to it. However, few empirical studies have tested whether the associations between workplace flexibility and family outcomes in the context of household structure. Thus, in the current study, the associations of workplace flexibility with couples' relationship quality and parent-child interaction are expected to be stronger among employed mothers in single parent households than in two-parent households. These associations are also expected to be stronger for fathers from dual-earner households than single-earner households.

### **Household Income**

Time is a crucial element in establishing families. However, the availability of time may be unequally distributed across social class. Low-income working families are more likely than mid- and high-income families to struggle with organizing daily routines and managing employment and family demands (Dyk, 2004; Roy et al. 2004; Tubbs et al., 2005). Mid- and high-income families have various options to save time and escape household labor, such as hiring cleaning services and nannies, and sending children to daycare. In contrast, low-income families experience greater challenges and have fewer options to increase family time due to limited financial resources (Dyk, 2004; Tubbs et al., 2005). Using ethnographic data from Welfare, Children, and Families: A Three City Study, Roy et al. (2004) explored time and

resource management by low-income mothers. Roy et al. (2004) found that low-income working mothers constantly struggle with employment demands and time constraints and have difficulties controlling their daily rhythms and securing stable childcare arrangements. For example, unexpected changes in work schedules often force low-income working mothers to improvise childcare arrangements, relying on informal care from other family members (Roy et al., 2004). Mothers with limited resources experience frustration and stress over competing work and caregiving demands. Shift-based work, limited availability of personal vehicles, and less control over work times challenge and disrupt low-income mothers' daily rhythms and prevent them, for example, from staying at home to nurse sick children (Roy et al., 2004). In addition, low-income workers have more limited access to flexible scheduling options than mid- and high- income workers (Bond & Galinsky, 2006), which may reduce their ability to coordinate work and family demands.

Emlen (2010) posited that working parents need flexibility in their immediate environment of work, family, or childcare arrangements to manage work and caregiving. If families cannot provide working parents with flexibility to handle conflicting demands, workplace flexibility may become an especially valuable resource. Among low-income working parents, access to flextime and working from home may compensate for limited family resources to address work and family demands, which higher-income families can purchase support to manage. However, low-income workers might not view part-time employment as a resource because working fewer hours reduces earnings.

Given the limited time flexibility and financial struggles low-income parents experience in daily life (Dyk, 2004; Tubbs et al., 2005), flextime and working from home can be more beneficial for low-income working parents than mid- and high-income working parents, who

have available resources to adjust time conflicts to a certain degree. In this study, therefore, it is hypothesized that the associations of flextime and working at home with couples' relationship quality and parent-child interaction are stronger for low-income parents than mid- and high-income working parents. However, little is known about whether the influence of workplace flexibility differs across parents in low-, mid-, and high-income households. Only one study has descriptively explored this issue (Bond & Galinsky, 2006), finding that flexibility has greater positive effects on job satisfaction and mental health for low-income employees than mid- and high-income workers.

## **The Current Study**

### **Research Questions and Hypotheses**

When exploring the association between workplace flexibility and couples' relationship quality, the sample is limited to two-parent households. The sample includes two-parent households *and* single parent (mother) households to examine the association between workplace flexibility and parent-child interaction. Based on the reviewed conceptual frameworks and literature, the following research questions and hypotheses are proposed:

**(RQ1)** Are flextime, working from home, and part-time employment associated with couples' relationship quality among parents with young children and do these associations differ by gender?

*(H1)* The study expects the three types of workplace flexibility to be positively associated with couples' relationship quality among parents with young children. [Ch.V]

*(H2)* The study expects that the associations between workplace flexibility and couples' relationship quality would be more positively pronounced among mothers than fathers.

[Ch.V]

**(RQ2)** Are flextime, working from home, and part-time employment associated with parent-child interaction among parents with young children and do these associations differ by gender?

*(H3)* The study expects the three types of workplace flexibility to be positively associated with parent-child interaction among parents with young children. [Ch.VI]

*(H4)* The study expects that the associations between workplace flexibility and parent-child interaction would be more positively pronounced among mothers than fathers.

[Ch.VI]

**(RQ3)** Do the associations of the three types of workplace flexibility with couples' relationship quality and parent-child interaction vary by types of household?

Considering the increasing time-conflicts and pressures among parents from dual-earner and single parent households, these associations are expected to be more pronounced among single mothers than mothers from two-parent households and among fathers from dual-earner/two-parent households than single-earner/two-parent households.

*(H5)* The study expects that the associations between workplace flexibility and parent-child interaction would be more positively pronounced among mothers from single parent households than two-parent households. [Ch.VI]

(H6) The study expects that the associations between workplace flexibility and couples' relationship quality would be more positively pronounced among fathers from dual-earner/two-parent households than single-earner/two-parent households. [Ch.V]

(H7) The study expects that the associations between workplace flexibility and parent-child interaction would be more positively pronounced among fathers from dual-earner/two-parent households than single-earner/two-parent households. [Ch.VI]

**(RQ4)** Do the associations of the three types of workplace flexibility with couples' relationship quality and parent-child interaction vary by household income?

Given that working parents may need and value more workplace resources when family resources are insufficient to balance work and family demands, I expect the associations between workplace flexibility and couples' relationship quality and parent-child interaction to be more pronounced among low-income families than in middle- or high-income families.

(H8) The study expects that the associations between workplace flexibility and couples' relationship quality would be more positively pronounced among low-income mothers than mid-and high-income mothers. [Ch.V]

(H9) The study expects that the associations between workplace flexibility and parent-child interaction would be more positively pronounced among low-income mothers than mid-and high-income mothers. [Ch.VI]

(H10) The study expects that the associations between workplace flexibility and couples' relationship quality would be more positively pronounced among low-income fathers than mid-and high-income fathers. [Ch.V]

*(H11)* The study expects that the associations between workplace flexibility and parent-child interaction would be more positively pronounced among low-income fathers than mid-and high-income fathers. [Ch.VI]



## CHAPTER III: METHODS

### Sample

For the sample, the longitudinal analytic models in this study used biological and adoptive mothers and biological and adoptive resident fathers who completed the survey when the focal child was about 2 years old (wave 2) and 4 years old (wave 3)<sup>2</sup>. The analytic sample is limited to mothers and fathers who reported valid work information and outcome measures in waves 2 and 3<sup>3</sup>. The final sample consists of mothers (n=7,700) and resident fathers (n=3,800)<sup>4</sup> who completed both surveys in waves 2 and 3, reported work information (either employed or unemployed at the time of the survey), and provided valid outcome information. The final sample size was different across models with specific outcome measures due to their missing cases. In the models that predict the couples' relationship outcomes, mothers who reported living with partners in waves 2 and 3 were selected, limiting the mother sample to mothers from two-parent households (n=4,750). As resident fathers were identified by mothers, they were all included in the models for couples' relationship quality.

These sample criteria excluded 1,350 mothers observed at 24 months but not at 48 months. Mothers reporting missing information on work status in two waves were also excluded. The descriptive analyses found that those excluded from the sample were more likely to be single mothers and to have lower education attainment and lower reported household income

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<sup>2</sup> The kindergarten survey (wave 4) was not utilized in the current study because several outcome measures for parents, such as parent-child interactions, were not collected in the kindergarten survey.

<sup>3</sup> Employed and unemployed parents were included in the final sample to retain cases that changed their employment status between two waves. A dummy indicator of 'unemployment' status was included in all the models.

<sup>4</sup> The sample size was rounded to the nearest 50 following ECLS-B's confidentiality rules.

than those included in the sample. In the sample of fathers, among resident fathers identified by mothers in waves 2 and 3 ( $n = 5,950$ ), those who did not complete the survey in both waves were excluded ( $n = 2,100$ ). The descriptive analyses found that fathers excluded from the sample were more likely to be less educated and not married to their partner, with lower reported household income than fathers included in the sample. The study sample therefore comprised more advantaged mothers and fathers than the full sample from the ECLS-B.

To retain cases in the sample, missing items in the control variables (less than 1 percent) were imputed by adding a dummy indicator for missing cases. In the descriptive and multivariate analyses, the ECLS-B sampling weight was adjusted to address sample attrition and sampling bias and to allow for making inferences about the national population (Bethel et al., 2005; Snow et al., 2007).

## **Key Measures**

### **Independent Variables**

Workplace arrangements that potentially provide workplace flexibility were measured using three binary indicators in the ECLS-B. Mothers provided information on both their and their partner's flextime, work-from-home and part-time employment, in both waves. *Flextime* (flextime) was measured using the question "Are you (or partner's name) eligible for the following benefits through (any of) your current job/jobs: flexible hours or flextime?" The question was answered using a binary response format (1= "yes", 2= "no"). This item measured the availability of flexible work schedules and hours. However, it did not capture actual use of flexibility options or identify specific types of flextime. *Working from home (flexplace)* was measured using the following question: "As part of your job, do you do any of your work at home? Probe: This

means you have a formal arrangement with your employer to work at home, not just taking work home from the job.” This question was answered using a binary-response format (1= “yes”, 2= “no”). Those who reported being self-employed were treated as a separate category and included as a control variable in all analytic models. This item directly measured workers’ access to flexplace options, excluding those working at home to catch up on work from the office. *Part-time employment* was measured with the following question: “About how many hours per week do you (or partner’s name) usually work for pay (counting all jobs)?” Those who worked fewer than 35 hours per week were considered *part-time employees*. This 35-hour cut off was consistent with previous studies and the Bureau of Labor Statics definition of part-time work (Hill et al., 2004; Kalleberg, 2000; Stratton, 1996).

Although these three forms of workplace arrangement are intended to represent workers’ choice of work schedule, location, and hours, the current measures—especially part-time employment—are insufficient to establish whether control over work hours is driven by employees or by employers. Given the prevalence of involuntary part-time employment (Lambert et al., 2012; Stratton, 1996; Tilly, 1992), particular caution is required when interpreting the findings regarding part-time employment. It should also be noted that current flextime and home working measures potentially reflect formal arrangements in the workplace. However, research suggests that workers also access the workplace through informal channels—for instance, through managers and co-workers (Anderson, Coffey, & Byerly, 2002; Estes, 2005). The current measures therefore may not capture flexible work arrangements that workers attain through informal network. In addition, the measures of flextime and working from home used in this study focus on the availability of such work arrangements and are limited in their ability to

capture actual use. The limitations of these workplace measures are further explained in the Discussion section.

## **Dependent Variables**

**Couples' relationship quality.** Couples' relationship quality was measured with three indicators in waves 2 and 3. First, mothers and fathers were asked to rate their relationship happiness with their partner, using the following question: "Would you say that your marriage/relationship is ... very happy, fairly happy, or not too happy?" Since most parents rated their relationship as very happy (over 70 percent) and only a few rated theirs as not too happy (about 2 percent), this measure was dummy-coded as 0 (*not too happy or fairly happy*) and 1 (*very happy*).

Next, mothers and fathers were asked to rate negative interaction with their partner. Ten sub-items were assessed in waves 2 and 3 with the following questions: "Do you and your spouse/partner often, sometimes, hardly ever, or never have arguments about chores and responsibilities, your child(ren), money, not showing love and affection, sex, religion, leisure time, drinking, other women or men, or in-laws?" Items were rated on a Likert scale of 1 (*never*) to 4 (*often*). Mean scores were computed for mothers and fathers, and higher scores indicated more conflicts with spouses/partners. The scales demonstrated adequate internal consistency for the mother and father samples, with a Cronbach's alpha of .83 in wave 2 and .80 in wave 3 for mothers and .83 in wave 2 and .82 in wave 3 for fathers.

The third variable captured couples' positive interaction, including five sub-items: "How often do you and your spouse/partner do the following things: talk to each other about your day, laugh together, calmly discuss something, work together on a project, or talk about things that

interest you both?” Scores ranged from 1 (less than once a month) to 4 (almost every day). These questions were assessed in wave 2 only. Mean scores were computed for mothers and fathers, with higher scores indicating more positive interaction with spouses/partners. Cronbach’s alpha was .80 for mothers and .76 for fathers. In the multivariate analyses, the couples’ negative and positive interaction scales were standardized separately for mothers and fathers to allow for comparing the estimates across models.

**Parent-child interaction.** The ECLS-B collected rich information on mothers and fathers’ interaction with their children. In waves 1, 2, and 3, mothers and fathers were asked to rate how frequently they engaged with their children in a typical week in the following activities: reading books, telling stories, and singing songs (on a four-point Likert scale; responses ranged from 1 = *not at all* to 4 = *every day*, with higher scores indicating more frequent involvement). Mothers also were asked to rate how frequently they engaged in the following activities in the past month: playing games with their children and taking them out for a walk in waves 1, 2, and 3, and preparing meals, feeding them, putting them to sleep, washing or bathing them, helping them brush their teeth, and dressing them in wave 3 only (on a six-point Likert scale, with responses ranging from 1 = *not at all* to 6 = *more than once a day*)<sup>5</sup>. In the same manner, fathers were asked to rate their engagement in the following activities in waves 1, 2, and 3: playing games with their children, taking them out for a walk, preparing meals, feeding them, putting them to sleep, washing or bathing them, helping them brush their teeth (wave 3 only), and dressing them. In this study, parent-child interaction was disaggregated into two categories by

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<sup>5</sup> The wording of each item was slightly different across waves 2 and 3. Specific items were included in the Appendix A.

activity type<sup>6</sup>, following Craig and Mullan (2011): (1) social-recreational interaction with children, including reading them books, telling them stories, singing songs with them<sup>7</sup>, playing together, and taking them outside to play, and (2) basic care interaction, including preparing their meals; feeding, bathing, and dressing them; putting them to bed; and helping them brush their teeth. Social-recreational and basic care interaction scales were created by calculating the mean of these items separately for mothers and fathers. For mothers, Cronbach's alpha for the social-recreational interaction scale was .62<sup>8</sup> in wave 2 and .59 in wave 3, and for the social-recreational interaction scale, .57 in wave 3, indicating slightly lower reliability of scales for mothers<sup>9</sup>. For fathers, Cronbach's alpha for the social-recreational interaction scale was .71 in wave 2 and .66 in wave 3, and for the social-recreational interaction scale, .84 in wave 2 and .82 in wave 3. The social-recreational and basic care interaction scales, when the focal child was 9 months old (wave 1), were constructed in the same way to control for the prior level of parent-child interaction separately for mothers and resident fathers. In the multivariate analyses, the social-recreational and basic care interaction scales were standardized to allow for comparing the estimates across models.

## **Moderating Variables**

Household type was measured separately for the mother and resident-father samples. In the mother sample, working mothers were from either two-parent or single parent households. A binary indicator of single mother households was created to examine the possible varying

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<sup>6</sup> Explanatory factor analyses also confirmed that items for the social-recreational and basic care interaction were grouped together separately.

<sup>7</sup> Since the first three items are on a four-point Likert scale, and the rest of the items are on a six-point Likert scale, each item was standardized first, then computed means were created with standardized items separately for mothers and fathers.

<sup>8</sup> I dropped one item due to low contribution to the scale's reliability.

<sup>9</sup> The contribution of each item to Cronbach's alpha was checked to consider dropping an item with a low contribution to reliability.

associations of workplace flexibility with parent-child interaction between mothers from two-parent and single parent households. All the resident fathers were from two-parent households because they were identified by mothers in the survey. Among the two-parent households, working fathers came either from dual-earner households with employed mothers or single-earner households with unemployed mothers. A binary indicator was created to test the varying associations of workplace flexibility with couples' relationship quality and parent-child interaction between fathers from dual-earner and single-earner households. To test these associations as moderated by household income, a dichotomous indicator of household income (1 = low-income households, 0 = mid- and high-income households) was created. Household income less than 200 percent of the federal poverty guidelines in the survey year was defined as a low-income household.

### **Control Variables**

Certain characteristics of children, parents, and families may be associated with access to workplace flexibility, couples' relationship quality, and parent-child interaction. Based on previous studies (Conger et al., 1990; Estes, 2005; Roeters et al., 2010; Rogers, 1996), the current study controlled for a wide range of parental characteristics (e.g., race, age, education level, self-rated health status, marital status, occupation type, working hours and schedules, self-employment status, and number of jobs), household characteristics (e.g., income, number of children and adults, and region of residence), and focal child characteristics (e.g., age, gender, birth weight, and primary child-care arrangements).

### Analytic Approach

Descriptive analyses were performed to examine the general characteristics of all study variables and to identify differences in focal variables (e.g., workplace flexibility and parent-child interaction) across household income; separate analyses were performed for mothers and resident fathers in wave 2 (24 months). The distribution of workplace flexibility across household structure was also examined. There is evidence that those who work flexible schedules or telecommute are likely to increase their working hours and work intensity (Lott and Chung, 2016; Noonan & Glass, 2012), and this may confound associations between workplace flexibility and family relationship outcomes. Although the analytic models controlled for working hours, a descriptive analysis of working hours by workplace flexibility to test the current models confirm this trend.

Three analytic approaches were performed to examine the associations of the three types of workplace flexibility with couples' relationship quality and parent-child interaction (RQ1 and RQ2). First, the study applied pooled-linear regression for continuous dependent variables and pooled-logistic regression for a binary-dependent variable (i.e., couples' relationship happiness), with a rich set of control variables, shown in this equation:

$$Y_{it} = \alpha + \beta_1 FLEX_{it} + \beta_{2-20} CONT_{it} + \varepsilon_{it} \quad (1)$$

Here,  $Y_{it}$  is each dependent variable of mother  $i$  (or father  $i$ ) at time  $t$  (2 or 3). The vector FLEX represents each workplace flexibility indicator of mother  $i$  (or father  $i$ ) at time  $t$ , the vector CONT represents a series of 19 control variables, and  $\varepsilon$  represents the error term. Next, to address possible omitted-variable bias and take advantage of the panel structure of the ECLS-B, lagged-dependent variable (LDV) models that included an outcome variable from a previous wave were employed, as shown in equation 2:



$$Y_{it} = \alpha + \beta_1 \text{FLEX}_{it} + \beta_{2-20} \text{CONT}_{it} + \beta_{21} Y_{it-1} + \varepsilon_{it} \quad (2)$$

Here,  $Y_{it-1}$  indicates a dependent variable from the previous wave. The LDV models yielded less-biased estimates because they adjusted for possible pre-existing differences in outcome measures before parents reported access to workplace flexibility (Johnson, 2005). However, the LDV models do not address the omitted variable bias entirely since they fail to address unobserved heterogeneity of individuals over time. Finally, the fixed-effects (FE) model was used to account for the possibility that time-invariant, unobserved characteristics may confound the association of workplace flexibility with couples' relationship quality and parent-child interaction (Allison, 2009). The FE model eliminates potential biases caused by constant unobserved differences between individuals by focusing on changes within individuals. As shown in equation 3, the FE models were specified by subtracting the equation at the second wave from the same equation at the third wave:

$$\Delta Y_i = \Delta \alpha + \beta_1 \Delta \text{FLEX}_i + \beta_2 \Delta \text{TCONT}_{it} + \Delta \varepsilon_i \quad (3)$$

$\Delta Y$  denotes the changes in the dependent variable between waves,  $\Delta \text{FLEX}_i$  represents changes in workplace flexibility between waves, and  $\Delta \text{TCONT}$  indicates time-varying control variables. However, the FE model only used the cases in which workplace flexibility and the dependent variables changed over time<sup>10</sup>, reducing the sample size and possibly limiting the representativeness of the FE model's estimates. Thus, the LDV model was used as the main analytic approach, and the FE model was used as a robustness check. Because repeated observations were collected for each individual<sup>11</sup>, the analyses needed to account for non-

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<sup>10</sup> For example, only 34 percent and 18 percent of employed mothers changed their flextime and ability to work from home, respectively, over time.

<sup>11</sup> Two observations (waves 2 and 3) were included per person in the sample.

independence of observations. Thus, standard errors in all models were adjusted to account for the inter-correlation of multiple observations on each individual over time. All models were conducted separately for mothers and resident fathers.

Additional interaction analyses were performed to test the varying associations between workplace flexibility and couples' relationship quality and parent-child interaction by gender. First, the samples of mothers and fathers were combined, and the interaction terms of gender with each flexibility measure were then added to the models. The interaction analyses were performed for all three models. If the interaction terms were significant at  $p < .05$ , the same superscript (a, b, c) was added to the estimates for mothers and fathers in the main tables.

The moderating roles of household type and income were examined by adding an interaction term for each moderator (household type and income) with the three types of flexibility to the LDV models separately for the male and female samples (RQ3 and RQ4). In all multivariate models, variance inflation factors (VIFs) were examined to detect potential multicollinearity. No single VIF value was greater than 5, suggesting that multicollinearity is not an issue in the proposed analytic models. In all models, each flexibility indicator was added separately with a series of control variables. Then, all three types of flexibility were added simultaneously to explore the relative strength of flexibility indicators. The results show that the magnitude and significance of estimates are nearly identical between models adding each flexibility indicator separately and models adding all three types of flexibility indicators. To conserve space, the results of the former models were reported in Appendix B, and the results of the latter models were reported in the results section.

### **Robustness Checks**

I conducted a few sensitivity analyses to test the robustness of the main model findings. First, to test the robustness of the finding on part-time employment, I re-estimated study results using the part-time employment defined as working hours fewer than 30 hours per week (Higgins et al., 2000). The results are presented in Appendix E. Although the results with the new definition of part-time employment were generally similar to those from main models using the original part-time employment measure, the positive impact of part-time employment became stronger in some instances. For example, Table E.1 shows that the positive association between part-time employment and relationship happiness for mothers became significant in the fixed-effects model and mothers' part-time employment was associated with less frequent negative interactions (although significant only in Model 1) and more frequent positive interactions within partners. Table E.4 presents that positive association between fathers' part-time employment and basic care interaction also became significant in Models 2 and 3. This finding suggests that fewer working hours are directly related to mothers' relationship quality and fathers' involvement in parenting.

In addition, to test the robustness of the findings on household income, I re-estimated the interaction analyses by using household income below 100 percent poverty threshold. The results are presented in Appendix E (Tables E.5 and E.6). Most interaction estimates that were significant in the original model became nonsignificant (or reduced its significance) when using the 100 percent poverty threshold. This finding suggests that the poor parents whose income below 100 percent poverty threshold may not have additional benefit or harm from workplace flexibility, compared to parents from non-poor households. Thus, parents with household income

between 100 and 200 percent of the poverty level potentially contribute to the significant estimates in the original interaction results of low-income households.

Lastly, in analytical models predicting parent-child interaction outcomes, the sample includes mothers from two-parent and single-parent households, while the father sample only includes fathers from two-parent households. To address this differential sample composition by gender, a robustness test was conducted that compared the estimates for the association between workplace flexibility and parent-child interactions for mothers from two-parent households, excluding single mothers, to the estimates for fathers' (two-parent households, by study design). The full results are reported in Appendix C. In brief, the original findings were confirmed. Detailed results are reported in the Chapter VI.

## CHAPTER IV: DESCRIPTIVE ANALYSES

This chapter presents the results of the descriptive analyses separately for mothers and fathers. Given the study's focus on workplace flexibility in the context of household income and household structure, the descriptive characteristics of mothers and fathers across household income are examined in Tables 4.1 and 4.2. In addition, the distribution of workplace flexibility across different household structure is explored in Table 4.3.

Table 4.1. Descriptive Characteristics of Mothers

	Full-sample	Low-income	Mid-/high-income	Test
N (wave 2)	7,700	3,900	3,800	
Respondent's age	29.6(6.2)	27.3(5.9)	31.8 (5.5)	***
Race				***
White (ref)	58.4	40.2	75.6	
African-American	13.3	20.5	6.5	
Hispanic	22.5	33.9	11.7	
Asian	3.2	2.1	4.2	
Indian/other	2.6	3.2	2.1	
Education				***
Less than high school (ref)	16.5	30.4	3.5	
High school graduate	28.7	39.2	18.9	
Some college	28.4	25.5	31.1	
Bachelor and more	26.4	5	46.5	
Self-rated health				***
Fair/poor (ref)	7.7	11.8	3.8	
Good	23.4	30.1	17.1	
Very good	34.8	32.2	37.3	
Excellent	34.1	25.8	41.9	
Marital status				***
Married (ref)	70.4	51.8	87.9	
Non-married	29.6	48.2	12.1	
Number of adults in HH (mean, s.d.)	2.1 (0.8)	2.2 (0.9)	2.1 (0.5)	*
Number of children in HH (mean, s.d.)	2.2 (1.1)	2.5 (1.3)	1.9 (0.9)	***
Partner				***
No resident partner	19.3	32.3	7.1	
Partner working	74.8	59.5	89.3	
Partner not working	5.1	7.3	3.1	

Table 4.1. Descriptive Characteristics of Mothers (continued)

	Full-sample	Low-income	Mid-/high-income	Test
Income to needs ratio				***
less than 1 (ref)	23	47.3	0	
1~2	25.6	52.7	0	
2~3	14.4	0	28	
3~4	13	0	25.2	
4~5	9.3	0	18.1	
more than 5	14.8	0	28.7	
Region	%			***
Urban area (ref)	73.3	69.2	77.3	
Urban cluster	11.8	14.3	9.4	
Rural area	14.9	16.5	13.3	
Child gender				
Boy (ref)	51.2	51.1	51.4	
Girl	48.8	48.9	48.6	
Child birth-weight				***
Normal (ref)	92.3	91.2	93.3	
Low	7.7	8.8	6.7	
Child age (month; mean, s.d.)	24.4 (1.2)	24.5 (1.3)	24.4 (1.1)	*
Child care type				***
Parental care (ref)	50.6	58.1	43.6	
Relative care	18.4	20.1	16.9	
Nonrelative care	14.8	10	19.3	
Center care	16.1	11.9	20.1	
Work status	54.8	64.5	45.1	***
Working hours per week (employed only; mean, s.d.)	33.9 (12.6)	34.0 (11.5)	33.9 (13.2)	
Occupation category (employed only)				***
Management/business/financial/prof. (ref)	33.3	11.7	47.4	
Service	23.8	38.2	14.4	
Sales/office/admin support	34.9	37.2	33.4	
Farming/construction/maintenance	0.9	1.1	0.8	
Production/transportation/military	7.1	11.8	4	
Work schedule (employed only)				***
Day shift	74.4	66.2	79.7	
Evening/night shift	15	23	9.7	
Rotating/split shift	10.7	10.8	10.6	
Number of jobs (employed only)				
One job (ref)	93.8	94.3	93.4	
Two or more jobs	6.2	5.7	6.6	
Access to flextime (employed only)				***
No (ref)	56.1	62.4	52	

Table 4.1. Descriptive Characteristics of Mothers (continued)

	Full-sample	Low-income	Mid-/high-income	Test
Yes	43.9	37.6	48	
Working from home (employed only)				***
No (ref)	75.4	88.4	66.9	
Yes	19.7	7.7	27.4	
Self-employed	4.9	3.8	5.6	
Part-time (working hours<35) (employed only)				
Full time (ref)	62.3	62.2	62.4	
Part time	37.7	37.8	37.6	
<i>Dependent variables</i>				
Relationship happiness <sup>a</sup>				***
Fairly/not too happy	24.9	29.3	22.2	
Very happy	75.1	70.7	77.8	
Negative interaction with a partner (mean, s.d.) <sup>a</sup>	1.9 (0.5)	2.0 (0.6)	1.9 (0.5)	***
Positive interaction with a partner (mean, s.d.) <sup>a</sup>	3.5 (0.5)	3.4 (0.6)	3.5 (0.5)	***
Social-recreational interaction (mean, s.d.)	4.7 (0.8)	4.5 (0.8)	4.8 (0.7)	***
Basic care interaction (mean, s.d.; wave 3)	4.8 (0.8)	4.8 (0.8)	4.9 (0.7)	***
Note: All percentages were weighted. a. the sample is limited to two-parent households (N=4,750). The chi-test was conducted for categorical variables and t-test was conducted for continuous variables to test the differences in distribution across household income. s.d.= standard deviation.				
*** $p<0.001$ , ** $p<0.01$ , * $p<0.05$				

Table 4.1 presents the descriptive characteristics of the full sample of mothers and fathers across level of household income with all control and focal variables included in the analytic model at wave 2. In the full sample, the mothers were 30 years old on average, over half of them were white, 13 percent were African-American, and 23 percent were Hispanic. Nearly one quarter of the mothers had a high school diploma (or GED), 17 percent had less than a high school education, and over half had some college educations and bachelor's degree or higher. The mothers reported generally very good or excellent health status (69%), while 23 and 8 percent reported good and fair/poor health status, respectively. Most of the mothers were married (70%), nearly one-fifth were single, and three quarters had a partner who reported working. On average, two adults and two children resided in each household, nearly three quarters of the

mothers resided in urban areas, and 15 percent resided in rural areas. Regarding household income, slightly over 20 percent lived below the poverty line (with an income-to-needs ratio less than 1), and one quarter lived between the 100 and 200 percent poverty threshold, defined as low-income households in the study. In terms of focal children's characteristics, 51 percent were boys, and about 8 percent had low birth weights. Half the mothers used parental care as their primary-care arrangement, 20 percent used non-relatives, 15 percent used relatives, and 16 percent used day-care centers. Over half reported working, and employed mothers worked 34 hours per week on average in the 48-month survey. Among those employed, one-third had professional jobs, such as management, business, and financial occupations; another third had jobs in sales, office, and administrative support; over 20 percent had jobs in the service sector; and 7 percent reported having production/transportation/military jobs. About three-fourths worked day shifts, while one-fourth worked nonstandard schedules, including evening and overnight shifts (15%) and rotating-split shifts (11%).

Regarding workplace flexibility, over two-fifths of working mothers had access to flextime, one-fifth had the ability to work from home, and nearly 40 percent worked less than 35 hours per week. Although workplace-flexibility indicators are measured slightly differently, the general distribution of flextime and working from home is consistent with the previous study (Galinsky et al., 2011), in which 45 percent of workers had flextime and about one-sixth had the ability to work from home.

In terms of family-relationship outcomes, three-fourths of mothers rated their relationships with their partner as very happy, reported *hardly ever* (corresponding with a score of 1.9) having negative interaction with their partner, and had positive interaction more than once or twice a day (corresponding with a score of 3.5) on average. Mothers also reported having



social-recreational and basic care interaction with their children nearly once a day on average (corresponding with a score of 4.7~4.8).

The mothers' demographic and work characteristics vary across level of household income. Compared with mothers from mid- and high-income households, low-income mothers were more likely to be in disadvantaged groups, e.g., non-white, less-educated, and single. Low-income mothers also were more likely to report poor self-rated health, have more children, have children with low birth weights, and live in urban clusters and rural areas. Regarding child-care arrangements, low-income mothers were more likely to use parental care and relative care as their primary care arrangements. Low-income mothers also were more likely to report working on the 48-month survey and, among those employed, were more likely to work in service occupations, on evening and overnight shifts, with less access to flextime and the ability to work from home than mid- and high-income mothers. This is consistent with the previous study (Bond & Galinsky, 2006), in which low-wage workers had limited access to flexible work arrangements.

Although low-income mothers were less likely to have access to flexible work arrangements, there was still variation such that some low-income mothers did. Appendix F presents the distribution of occupations by workplace flexibility for low-income mothers and low-income fathers. Among low-income mothers, those with the ability to work from home were more likely to have jobs in education, such as elementary/secondary school teachers, teaching assistants, and training workers, and in personal care services, such as hairstylists, tour and travel guides, childcare workers, personal care aides, and gaming service workers. Mothers working in these types of jobs have the option of working from home for some of their hours although their wages may be lower than other groups of workers. Low-income part-time mothers also appeared to work in service-related occupations, such as food preparation workers, food servers, janitors,

and housekeeping cleaners (see Table F.3). However, there was not much variation of occupations by flextime among low-income mothers (see Table F.1).

Regarding family-relationship outcomes, low-income mothers consistently reported poor relationships with their partner and interacted with their children less frequently compared with mid- and high-income mothers. This finding suggests that low-income mothers are disadvantaged not only in their social and economic status, but also in their work conditions and family relationships.

Table 4.2. Descriptive Characteristics of Resident Fathers

	Full-sample	Low-income	Mid-/high-income	Test
N (wave 2)	3,800	1,250	2,550	
Respondent's age (mean, s.d.)	33.7 (6.3)	31.6 (6.8)	34.8 (5.7)	***
Race				***
White (ref)	66.7	44.1	79.2	
African-American	5.9	7.8	4.8	
Hispanic	20.6	40.1	9.8	
Asian	3.6	2.5	4.2	
Indian/other	1.7	2.3	1.4	
Missing	1.6	3.2	0.7	
Education				***
Less than high school (ref)	13.4	30.1	4.3	
High school graduate	21.6	32.8	15.4	
Some college	29.4	26.7	30.9	
Bachelor and more	35.6	10.4	49.4	
Self-rated health				***
Fair/poor (ref)	5.6	9.1	3.6	
Good	23.7	28.6	21	
Very good	40.9	38.1	42.5	
Excellent	26.9	20.9	30.1	
Missing	2.9	3.2	2.8	
Marital status				***
Married (ref)	89.9	78.4	96.3	
Non-married	10.1	21.6	3.5	
Number of adults in HH (mean, s.d.)	2.2 (0.6)	2.3 (0.8)	2.1 (0.4)	*
Number of children in HH (mean, s.d.)	2.2 (1.1)	2.5 (1.3)	2.0 (0.9)	***
Partner				***

Table 4.2. Descriptive Characteristics of Resident Fathers (continued)

	Full- sample	Low- income	Mid-/high- income	Test
Partner not working	45.4	59.8	37.5	
Partner working	54.6	40.2	62.5	
Income to needs ratio				***
less than 1 (ref)	12.6	35.5	0	
1~2	22.9	64.5	0	
2~3	15.9	0	24.7	
3~4	16.4	0	25.5	
4~5	12.6	0	19.5	
more than 5	19.5	0	30.3	
Region	%			***
Urban area (ref)	74.1	68.9	76.9	
Urban cluster	11	13.5	9.6	
Rural area	14.9	17.6	13.5	
Child gender				
Boy (ref)	51.5	51.5	51.5	
Girl	48.5	48.5	48.5	
Child birth-weight				*
Normal (ref)	93.8	92.9	94.2	
Low	6.2	7.1	5.8	
Child age (month; mean, s.d.)	24.3 (1.0)	24.3 (1.1)	24.2(1.0)	
Child care type				***
Parental care (ref)	55.3	68.8	47.9	
Relative care	14.4	14.2	14.6	
Nonrelative care	16.2	9.4	19.9	
Center care	14.1	7.6	17.7	
Work status	94.1	88.8	96.9	***
Working hours per week (mean, s.d.)	46.1 (11.4)	43.6 (11.4)	47.3(11.2)	***
Occupation category (employed only)				***
Management/business/financial/prof. (ref)	37	10.3	50.4	
Service	10.7	17.4	7.4	
Sales/office/admin support	13.2	13.6	13.1	
Farming/construction/maintenance	20.2	28.4	16.1	
Production/transportation/military	18.8	30.3	13	
Work schedule (employed only)				***
Day shift	80	73.4	83.3	
Evening/night shift	9.8	15.8	6.8	
Rotating/split shift	10.2	10.8	9.9	
Number of jobs (employed only)				
One job (ref)	91.5	92.9	90.8	
Two or more jobs	8.5	7.1	9.2	

Table 4.2. Descriptive Characteristics of Resident Fathers (continued)

	Full- sample	Low- income	Mid-/high- income	Test
Access to flextime (employed only)				***
No (ref)	61.8	72.5	56.5	
Yes	38.2	27.5	43.5	
Working from home (employed only)				***
No (ref)	75.4	87.5	69.4	
Yes	20	8.9	25.6	
Self-employed	4.6	3.6	5	
Part-time (working hours<35) (employed only)				***
Full time (ref)	94.7	91.3	96.4	
Part time	5.3	8.7	3.6	
Dependent variables				
Relationship happiness				**
Fairly/not too happy	25.9	28.2	24.7	
Very happy	74.1	71.8	75.3	
Negative interaction with a partner (mean, s.d.)	1.9 (0.5)	2.0 (0.6)	1.9 (0.5)	**
Positive interaction with a partner (mean, s.d.)	3.5 (0.5)	3.4 (0.5)	3.5 (0.5)	***
Social-recreational interaction (mean, s.d.)	4.0 (0.9)	3.9 (0.9)	4.0 (0.8)	*
Basic care interaction (mean, s.d.)	4.0 (0.9)	3.9 (1.0)	4.0 (0.8)	**
Note: All percentages were weighted. The chi-test was conducted for categorical variables and t-test was conducted for continuous variables to test the differences in distribution across household income. s.d.= standard deviation.				
*** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$				

Table 4.2 shows the sample characteristics of resident fathers in the full sample and across level of household income in wave 2. Overall, fathers were 34 years old on average, with two-thirds white, 6 percent African-American, and 20 percent Hispanic. Over one-third of fathers had high school or less than high school educations, while another one-third attained bachelor's degrees or higher (36%). Fathers reported very good and excellent health conditions overall (70%), and only 10 percent reported being not married the 48-month survey. Given that all resident fathers lived with partners (mothers), over half of these fathers' partners were employed, and 45 percent of their partner were unemployed. Other household and child characteristics are similar to those from the mother sample. Regarding work characteristics, over

90 percent of fathers were employed and, among those employed, over one-third (37%) had jobs in management, business, and finance and professional jobs, followed by farming, construction, and maintenance jobs (20%) and production, transportation, and maintenance jobs (19%). Roughly one-fourth had jobs in service, sales, office, or administrative support. Among those employed, roughly one-fifth worked with nonstandard schedules, 9 percent reported having two or more jobs, and about two-fifths (38%) and one-fifth (20%) had access to flextime and the ability to work from home, respectively. Only a small percentage (5%) worked fewer than 35 hours per week. In addition, three-fourths reported their relationships with their partner as very happy, *hardly ever* (corresponding with a score of 1.9) having negative interaction with their partner, and having frequent positive interaction (corresponding with a score of 3.5) on average. Fathers had social-recreational and basic care interaction with their children a few times a week (corresponding with a score of 4).

Fathers' demographic and work characteristics are also different across level of household income. Low-income fathers were more likely to be non-white, less-educated, and not married to their partner. They also were more likely to report poor self-rated health, have more children, have children with low birth weights, and live in urban clusters and rural areas than mid- and high-income fathers. In addition, low-income fathers in the 48-month survey were less likely to report being unemployed, and among those employed, they were more likely to work in service jobs, farming, construction, maintenance and production, transportation, and military occupations. Evening and overnight shifts were more prevalent among low-income fathers, and they had less access to flextime and less ability to work from home than mid- and high-income fathers.

Similar to low-income mothers, although low-income fathers were less likely to have access to flexible work arrangements, some of low-income fathers had access to them. Low-income fathers with the ability to work from home were more likely to work in computer-related occupations, such as computer programmers, web developers, and computer user support specialists, in community service, including school counselors, family therapists, social workers, and religious workers, and in art, sports, and media occupations, such as artists, actors, sports coaches, athletes, musicians, and writers (see Table G.2). In addition, low-income part-time fathers tended to work in food preparation and serving related occupations, such as chefs, food servers, and waiters, and in education, such as elementary or secondary school teachers, teaching assistants, and training workers (see Table G.3). However, there was not much variation of occupations by flextime among low-income fathers (see Table G.1).

In addition, low-income fathers reported poorer relationships with partners, were less happy with their relationships, and had more negative interaction and less positive interaction with their partner. Low-income fathers also interacted with their children less frequently compared with mid- and high-income fathers. This finding is consistent with the general picture of low-income mothers, indicating that low-income fathers are also disadvantaged in multiple aspects, including work conditions and family relationships.

Table 4.3. Workplace Flexibility across Household Type at Wave 2

	<i>Employed Mothers</i>			<i>Employed Fathers</i>		
	Two-parent households	Single parent households	Test	Single-earner households	Dual-earner households	Test
Access to flextime	44.4	42.1	*	40.1	36.5	**
Working from home	22.6	7.8	***	19.6	20.3	
Part-time employment	40.0	28.2	**	4.2	6.2	**
<i>N</i>	3,400	850		1,600	1,950	

Note: All numbers were weighted percentages. The sample is restricted to employed mothers and fathers at wave 2. T-test was conducted to test a statistical difference between parents from different types of household.  
\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

Table 4.3 presents access levels to workplace flexibility among employed mothers and fathers from different types of households. Mothers from two-parent households reported higher access to flextime and greater ability to work from home, and they were more likely to work part-time than those from single parent households. Fathers from dual-earner households reported less access to flextime, but were more likely to work part-time than those from single-earner households.

Table 4.4. Workplace Flexibility and Average Work Hours at Wave 2

	<i>Employed Mothers</i>			<i>Employed Fathers</i>		
	No	Yes	Test	No	Yes	Test
Access to flextime	33.7 (13.0)	34.2 (12.0)		46.2 (11.8)	46.0 (10.7)	
<i>N</i>	2,300	1,900		2,150	1,400	
Working from home	34.4 (11.1)	33.7 (15.3)		45.4 (10.9)	48.5 (11.7)	***
<i>N</i>	3,300	800		2,700	750	

Note: Average working hours per week are reported. All numbers were weighted percentages. The sample is restricted to employed mothers and fathers in wave 2. T-test was conducted to test a statistical difference between parents from different types of household. Standard deviation is reported in parenthesis.  
\*\*\*  $p < 0.001$

Table 4.4 presents the descriptive analyses of average working hours by access to flexible schedules and working from home. Average working hours were no different where both parents had access to flexible schedules. However, fathers with the option of working from home tended to work longer average hours per week (48.5 hours) than those without that option. For mothers, working hours were similar regardless of ability to work from home. This finding partially confirms prior evidence that workplace flexibility leads to longer work hours (Lott & Chung, 2016; Noonan & Glass, 2012). This descriptive finding suggests that working from home may function differently for mothers and fathers.



## CHAPTER V: WORKPLACE FLEXIBILITY AND COUPLES' RELATIONSHIP QUALITY

The first half of the chapter addressed the first research question by examining the extent to which three distinctive types of workplace flexibility influence the quality of relationships between mothers and resident fathers. Couples' relationship quality was operationalized in terms of three outcome measures within the couple: 1) relationship happiness; 2) negative interaction; and 3) positive interaction. As these outcomes focus on couples' relationship quality, the sample is necessarily limited to two-parent households. The models presented here consider three types of workplace flexibility estimated simultaneously. Models in which each flexibility indicator were added separately are reported in Appendix B; the results for these latter models were consistent with the main results.

As described in the Method section, three analytic models (pooled-logistic regression, lagged-dependent variable, and fixed-effects) were used sequentially to address potential omitted-variable biases. All models controlled for demographic and employment characteristics of parents, with adjusted weights from the ECLS-B. To test for gender differences in the association between workplace flexibility and couples' relationship quality, the interaction analyses were performed using the combined sample of mothers and fathers. Across models, sharing the same superscript (a, b, c) indicates that the interaction term of gender was significant in the combined sample. The second half of this chapter addresses research questions 3 and 4 by investigating whether the associations between workplace flexibility and couples' relationship quality vary across household structure and household income.

## Workplace Flexibility and Couples' Relationship Happiness

Table 5.1. The Association between Workplace Flexibility and Couples' Relationship Happiness

	<u>Mothers</u>			<u>Resident Fathers</u>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
Race (ref.= <i>white</i> )						
African-American	0.911 (0.697 - 1.192)	0.861 (0.679 - 1.092)		0.801 (0.582 - 1.103)	0.806 (0.602 - 1.078)	
Hispanic	1.018 (0.816 - 1.269)	1.113 (0.914 - 1.356)		1.345* (1.021 - 1.772)	1.297* (1.014 - 1.658)	
Asian	1.074 (0.870 - 1.324)	1.152 (0.957 - 1.386)		0.971 (0.768 - 1.227)	1.006 (0.817 - 1.240)	
Indian/other	1.011 (0.704 - 1.451)	1.032 (0.751 - 1.418)		0.714 (0.410 - 1.246)	0.754 (0.434 - 1.309)	
Missing				0.974 (0.526 - 1.803)	0.938 (0.537 - 1.638)	
Parent's age	0.975*** (0.961 - 0.989)	0.977*** (0.965 - 0.990)	1.153 (0.800 - 1.661)	0.994 (0.981 - 1.008)	0.993 (0.981 - 1.006)	1.187 (0.728 - 1.934)
Education (ref.= <i>less than high school</i> )						
High school graduate	0.855 (0.661 - 1.106)	0.939 (0.725 - 1.217)	1.123 (0.561 - 2.248)	0.953 (0.708 - 1.282)	0.927 (0.696 - 1.233)	1.664 (0.602 - 4.603)
Some college	0.801 (0.609 - 1.055)	0.895 (0.685 - 1.170)	1.527 (0.621 - 3.752)	0.849 (0.628 - 1.148)	0.779 (0.586 - 1.035)	0.940 (0.310 - 2.852)
Bachelor and more	0.758 (0.550 - 1.044)	0.835 (0.613 - 1.137)	1.788 (0.560 - 5.713)	0.792 (0.566 - 1.107)	0.756 (0.550 - 1.038)	1.248 (0.307 - 5.083)
Parent's self-rated health (ref.= <i>fair/poor</i> )						
Fair/poor						
Good	1.300* (1.002 - 1.688)	1.236 (0.937 - 1.630)	1.505 (0.844 - 2.686)	1.237 (0.953 - 1.607)	1.183 (0.876 - 1.597)	1.024 (0.632 - 1.660)
Very good	1.792*** (1.380 - 2.326)	1.599*** (1.220 - 2.094)	2.042* (1.079 - 3.866)	2.013*** (1.549 - 2.616)	1.788*** (1.340 - 2.385)	2.032** (1.205 - 3.427)
Excellent	2.733***	2.135***	2.891**	3.906***	3.282***	2.943**

Table 5.1. The Association between Workplace Flexibility and Couples' Relationship Happiness (continued)

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
Missing	(2.074 - 3.602)	(1.608 - 2.833)	(1.439 - 5.809)	(2.909 - 5.244)	(2.408 - 4.475)	(1.521 - 5.694)
Non-married (ref.= <i>married</i> )	0.997	1.005	1.015*	2.090*	2.075*	3.486
	(0.986 - 1.009)	(0.992 - 1.018)	(1.001 - 1.030)	(1.131 - 3.862)	(1.083 - 3.978)	(0.767 - 15.853)
Number of adult	1.006	0.973	0.799	1.082	1.090	0.989
	(0.898 - 1.128)	(0.864 - 1.095)	(0.578 - 1.105)	(0.936 - 1.250)	(0.934 - 1.272)	(0.704 - 1.390)
Number of children	1.038	1.040	0.896	1.006	1.046	1.143
	(0.966 - 1.115)	(0.975 - 1.110)	(0.679 - 1.180)	(0.927 - 1.091)	(0.972 - 1.126)	(0.816 - 1.601)
Partner working status (ref.= <i>partner is employed</i> )						
Partner is unemployed	0.926	1.070	1.231	0.841	0.814*	0.965
	(0.699 - 1.229)	(0.813 - 1.408)	(0.676 - 2.245)	(0.700 - 1.010)	(0.679 - 0.975)	(0.600 - 1.551)
Missing	2.338*	2.311	5.491**			
	(1.110 - 4.923)	(0.903 - 5.915)	(1.751 - 17.219)			
Income-to-needs ratio (ref.= <i>less than 1</i> )						
1~2	1.246	1.136	1.027	0.923	0.945	1.121
	(0.998 - 1.556)	(0.896 - 1.440)	(0.660 - 1.598)	(0.691 - 1.232)	(0.696 - 1.284)	(0.627 - 2.006)
2~3	1.469**	1.224	1.368	0.945	0.949	0.921
	(1.120 - 1.925)	(0.922 - 1.625)	(0.760 - 2.462)	(0.677 - 1.320)	(0.674 - 1.335)	(0.433 - 1.957)
3~4	1.826***	1.535**	1.612	1.081	1.092	1.357
	(1.363 - 2.445)	(1.144 - 2.058)	(0.822 - 3.161)	(0.757 - 1.544)	(0.763 - 1.564)	(0.586 - 3.139)
4~5	1.720**	1.484*	2.578*	0.930	0.977	2.002
	(1.224 - 2.418)	(1.051 - 2.095)	(1.192 - 5.574)	(0.626 - 1.380)	(0.659 - 1.450)	(0.725 - 5.524)
More than 5	1.980***	1.677**	2.341*	0.894	0.910	1.733
	(1.427 - 2.746)	(1.219 - 2.307)	(1.037 - 5.287)	(0.607 - 1.317)	(0.624 - 1.327)	(0.602 - 4.984)
Region (ref.= <i>urban area</i> )						
Urban cluster	1.009	0.999	0.635	1.061	1.057	0.741
	(0.808 - 1.259)	(0.812 - 1.228)	(0.225 - 1.793)	(0.836 - 1.347)	(0.841 - 1.329)	(0.259 - 2.119)
Rural area	1.046	1.086	1.598	1.172	1.130	0.710
	(0.853 - 1.283)	(0.904 - 1.304)	(0.588 - 4.345)	(0.923 - 1.487)	(0.911 - 1.403)	(0.269 - 1.871)
Child age	0.994**	0.994	0.973	0.997	0.994	0.970

Table 5.1. The Association between Workplace Flexibility and Couples' Relationship Happiness (continued)

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
	(0.990 - 0.998)	(0.989 - 1.000)	(0.942 - 1.005)	(0.992 - 1.002)	(0.987 - 1.001)	(0.929 - 1.012)
Girl (compare to boy)	1.170*	1.112		0.991	0.987	
	(1.009 - 1.356)	(0.975 - 1.267)		(0.840 - 1.169)	(0.852 - 1.143)	
Low-birth weight	1.144	1.137		0.868	0.878	
	(0.935 - 1.400)	(0.949 - 1.360)		(0.706 - 1.068)	(0.725 - 1.062)	
Primary care arrangement (ref.= <i>parental care</i> )						
Relative care	0.949	0.973	0.814	1.070	1.127	1.269
	(0.753 - 1.196)	(0.760 - 1.245)	(0.514 - 1.289)	(0.822 - 1.393)	(0.862 - 1.474)	(0.702 - 2.295)
Nonrelative care	0.941	0.977	1.156	1.067	1.096	1.096
	(0.743 - 1.192)	(0.768 - 1.244)	(0.706 - 1.894)	(0.819 - 1.391)	(0.837 - 1.436)	(0.620 - 1.937)
Center care	1.072	1.080	0.990	1.045	1.113	1.450
	(0.898 - 1.280)	(0.890 - 1.310)	(0.695 - 1.410)	(0.855 - 1.277)	(0.895 - 1.385)	(0.958 - 2.193)
Type of occupation (ref.= <i>management/business/financial/professionals</i> )						
Service	0.924	0.820	0.697	0.711*	0.723*	0.605
	(0.720 - 1.185)	(0.639 - 1.052)	(0.388 - 1.251)	(0.531 - 0.952)	(0.542 - 0.964)	(0.275 - 1.328)
Sales/office/admin support	1.020	0.975	1.211	1.011	0.963	0.727
	(0.823 - 1.264)	(0.792 - 1.200)	(0.693 - 2.117)	(0.776 - 1.317)	(0.743 - 1.249)	(0.380 - 1.393)
Farming/construction/maintenance	0.413	0.423*	0.031***	0.997	1.021	0.953
	(0.164 - 1.042)	(0.186 - 0.960)	(0.006 - 0.178)	(0.772 - 1.288)	(0.794 - 1.314)	(0.483 - 1.881)
Production/transportation/military	0.993	0.946	0.780	0.989	0.926	0.849
	(0.664 - 1.484)	(0.613 - 1.459)	(0.293 - 2.077)	(0.761 - 1.286)	(0.710 - 1.206)	(0.442 - 1.631)
Unemployed	1.661***	1.440**	1.154	0.924	0.946	1.046
	(1.301 - 2.122)	(1.133 - 1.831)	(0.615 - 2.164)	(0.644 - 1.327)	(0.644 - 1.390)	(0.504 - 2.168)
Work schedule (ref.= <i>day shift</i> )						
Evening/night shift	0.828	0.789	0.986	0.738*	0.823	1.510
	(0.635 - 1.079)	(0.598 - 1.039)	(0.551 - 1.762)	(0.560 - 0.971)	(0.618 - 1.096)	(0.774 - 2.946)
Rotating/split shift	0.827	0.878	0.867	0.763*	0.791	1.101
	(0.635 - 1.079)	(0.657 - 1.174)	(0.509 - 1.476)	(0.590 - 0.988)	(0.613 - 1.021)	(0.640 - 1.896)
Two or more jobs	0.843	0.834	0.668	0.804	0.937	1.350
	(0.621 - 1.144)	(0.600 - 1.159)	(0.334 - 1.335)	(0.604 - 1.071)	(0.714 - 1.230)	(0.682 - 2.671)
Self-employed	1.061	1.079	1.692	1.034	0.843	0.533

Table 5.1. The Association between Workplace Flexibility and Couples' Relationship Happiness (continued)

	<u>Mothers</u>			<u>Resident Fathers</u>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	OR	OR	OR	OR	OR	OR
	(0.704 - 1.600)	(0.724 - 1.608)	(0.527 - 5.439)	(0.712 - 1.502)	(0.579 - 1.227)	(0.253 - 1.122)
Lagged relationship happiness (ref.= <i>fairly happy /not too happy</i> )						
Very happy		8.621*** (7.293 - 10.192)			7.952*** (6.604 - 9.574)	
Missing case		4.967*** (3.651 - 6.758)			3.519*** (2.609 - 4.745)	
Access to flextime	1.039 (0.876 - 1.233)	1.005 <sup>a</sup> (0.840 - 1.202)	0.933 (0.652 - 1.334)	1.369*** (1.169 - 1.604)	1.406*** <sup>a</sup> (1.190 - 1.662)	1.430* (1.008 - 2.027)
Working from home	1.255* <sup>b</sup> (1.018 - 1.548)	1.059 (0.847 - 1.323)	1.022 (0.643 - 1.624)	0.874 <sup>b</sup> (0.718 - 1.065)	0.857 (0.697 - 1.052)	0.972 (0.628 - 1.506)
Part-time employment	1.323** <sup>c</sup> (1.094 - 1.600)	1.294** (1.067 - 1.568)	1.282 (0.828 - 1.984)	0.889 <sup>c</sup> (0.637 - 1.241)	0.856 (0.587 - 1.249)	0.762 (0.328 - 1.768)
Number of cases (N. of individuals)	9450 (4,750)	9450 (4,750)	2,150 (1,050)	7,350 (3,650)	7,350 (3,650)	1,700 (850)

Notes: The model 1 is a pooled logistic regression model. Model 2 is a Lagged Dependent Variable (LDV) model that additionally controls for outcome measure from the previous wave. Model 3 is a Fixed-Effects (FE) model. Across models, sharing the same superscript letter (a,b,c) indicates that the coefficients are significantly different from each other at  $p < .05$ . Weight provided by ECLS-B was adjusted for all models. Confidence interval was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. Coef, coefficient.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

Table 5.1 presents the associations between workplace flexibility and couples' relationship happiness for mothers and resident fathers. The results found that, among mothers, flextime was not associated with their relationship happiness, while working from home was positively associated with relationship happiness in model 1. Mothers with the option of work from home had a 26 percent higher probability of being "very happy" in their relationships with their partner, compared with mothers without the ability. However, the magnitude and significance of this estimate became lower in the LDV and FE models, indicating that this association may not be robust when further controlling for previous levels of relationship happiness and mothers' unobserved characteristics. Part-time employment also was positively associated with couples' relationship happiness for mothers in models 1 and 2. In model 2, mothers with part-time employment reported a 29 percent higher probability of being "very happy" in their relationships than mothers with full-time employment. Although this estimate became insignificant in the FE model, the magnitude of the estimate remained positive. ( $OR=1.28$ ), suggesting that part-time employment increase the probability of a high-quality relationship for mothers by roughly 30 percent. However, inconsistent with *H1* mothers' flextime was not associated with couples' relationship happiness.

In contrast, for fathers, flextime was significantly associated with improved relationship happiness, with a 37 to 43 percent increase in odds of relationship happiness. This association remained significant in the LDV and FE models as well, suggesting that fathers' flextime can have a positive influence on their relationship quality with their partners by promoting their relationship happiness. Working from home and part-time employment were not significantly related to relationship happiness for fathers and appeared to be *negatively* associated with relationship happiness, although none of estimates were significant. For example, fathers with

the ability to work from home had a 14 percent lower probability of reporting “very happy” when describing their relationships than fathers without the ability in model 2. Similarly, fathers with part-time employment had a 14 percent lower probability of reporting a high-quality relationship than fathers with full-time employment.

Regarding gender differences in the associations between workplace flexibility and couples’ relationship happiness, flextime had a more positive association with couples’ relationship happiness for fathers than for mothers. In Figure 5.1a, this trend of more positive association of flextime for mothers was demonstrated. However, this finding does not support *H2*, i.e., that these associations would be stronger for mothers than fathers. In contrast, the associations of working from home and part-time employment with couples’ relationship happiness were more positively stronger for mothers than fathers, consistent with the proposed *H2*. Among mothers, working from home was associated with improved relationship quality, increasing the odds of having a quality relationship by 26 percent in model 1 while fathers’ working from home was associated, though not significantly, with reducing the odds of having a quality relationship in by 13 percent in model 1. In Figure 5.2b, similarly, in model 1, part-time employment by mothers was associated with increased relationship quality while fathers’ part-time employment was negatively associated, though not significantly, with relationship happiness. In Figure 5.1b and 5.1c, these varying associations of working from home and part-time employment by gender are more clearly presented.

Taken together, the findings suggest that each flexibility indicator works differently across gender; flextime is more positively associated with relationship happiness for fathers and working at home and part-time employment are more positively associated with relationship happiness for mothers.

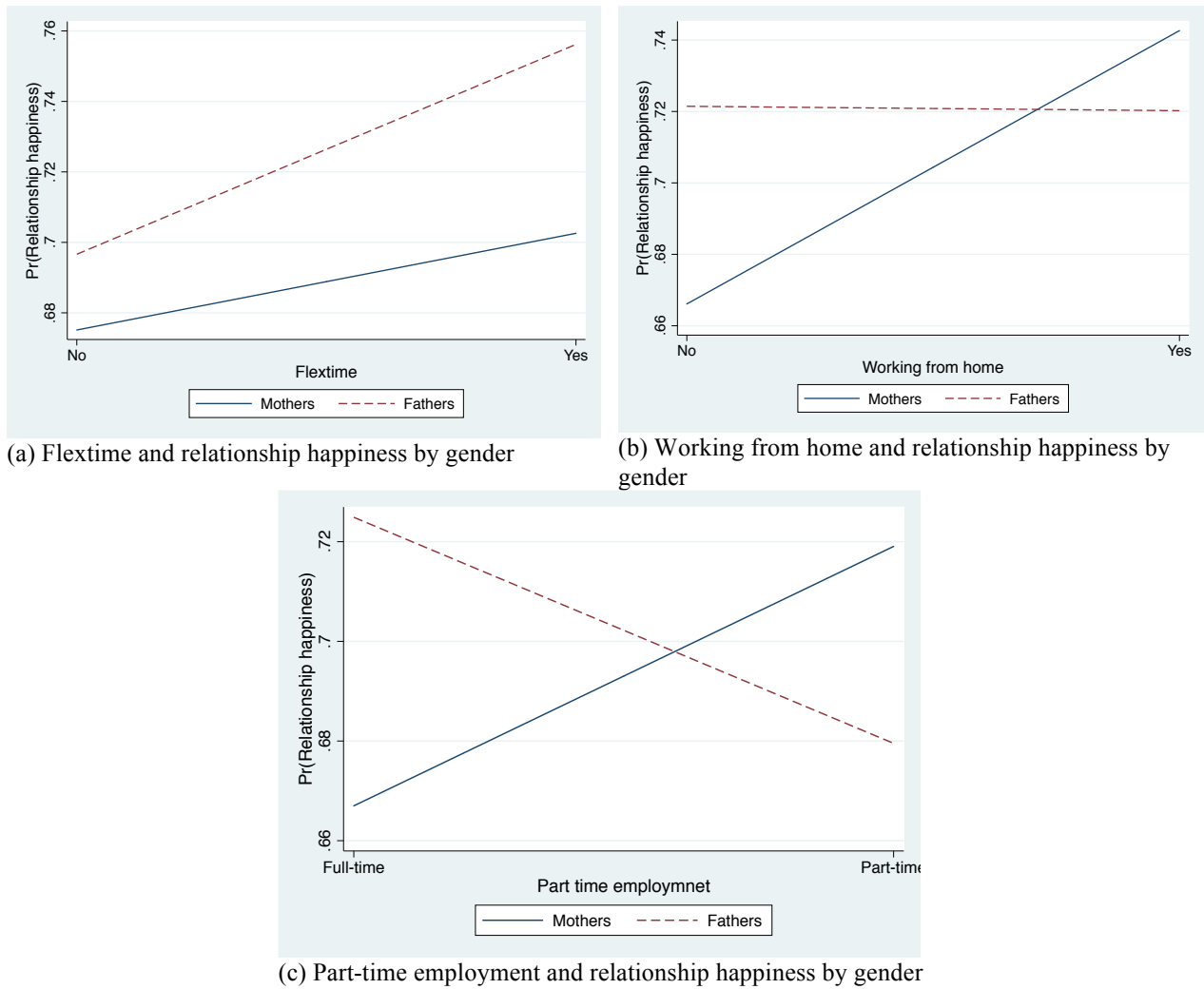


Figure 5.1. Moderating Associations between Workplace Flexibility and Couples' relationship Quality by Gender



## Workplace Flexibility and Couples' Interaction

Table 5.2. The Association between Workplace Flexibility and Couples' Interaction

	Couples' negative interaction						Couples' positive interaction	
	<i>Mothers</i>			<i>Resident Fathers</i>			<i>Mothers</i>	<i>Resident Fathers</i>
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 1
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Race (ref.= white)								
African-American	-0.014 (0.067)	-0.010 (0.048)		-0.095 (0.084)	-0.105 (0.058)		0.001 (0.068)	-0.014 (0.091)
Hispanic	0.050 (0.049)	0.013 (0.035)		-0.068 (0.057)	-0.053 (0.041)		-0.289*** (0.053)	-0.152* (0.069)
Asian	0.126** (0.046)	0.082* (0.034)		0.103 (0.060)	0.057 (0.037)		-0.188*** (0.054)	-0.297*** (0.072)
Indian/other	-0.044 (0.088)	-0.026 (0.058)		0.185 (0.109)	0.123 (0.073)		-0.043 (0.095)	-0.190 (0.202)
Missing				-0.091 (0.198)	-0.051 (0.155)			0.049 (0.201)
Parent's age	0.006 (0.003)	0.005* (0.002)	0.034 (0.041)	-0.008** (0.003)	-0.005* (0.002)	0.010 (0.052)	-0.014*** (0.004)	-0.009* (0.004)
Education (ref.= less than high school)								
High school graduate	-0.119 (0.064)	-0.079 (0.052)	-0.050 (0.127)	-0.030 (0.073)	-0.061 (0.058)	-0.142 (0.131)	0.192* (0.077)	0.096 (0.086)
Some college	-0.154* (0.064)	-0.099 (0.051)	-0.030 (0.141)	-0.028 (0.071)	-0.057 (0.055)	-0.203 (0.144)	0.230** (0.080)	0.185* (0.084)
Bachelor and more	-0.159* (0.072)	-0.103 (0.057)	0.177 (0.225)	0.084 (0.079)	0.016 (0.059)	-0.176 (0.182)	0.288*** (0.087)	0.139 (0.096)
Parent's self-rated health (ref.= fair/poor)								
Good	-0.100 (0.072)	-0.084 (0.062)	-0.043 (0.077)	-0.020 (0.068)	0.045 (0.062)	0.090 (0.075)	0.059 (0.091)	0.236* (0.117)
Very good	-0.214** (0.072)	-0.142* (0.060)	-0.061 (0.079)	-0.223*** (0.065)	-0.119* (0.057)	-0.131 (0.079)	0.089 (0.089)	0.401*** (0.113)
Excellent	-0.376***	-0.235***	-0.129	-0.416***	-0.241***	-0.173	0.202*	0.559***

Table 5.2. The Association between Workplace Flexibility and Couples' Interaction (continued)

	Couples' negative interaction						Couples' positive interaction	
	<i>Mothers</i>			<i>Resident Fathers</i>			<i>Mothers</i>	<i>Resident Fathers</i>
	Model 1 <i>Coef.</i>	Model 2 <i>Coef.</i>	Model 3 <i>Coef.</i>	Model 1 <i>Coef.</i>	Model 2 <i>Coef.</i>	Model 3 <i>Coef.</i>	Model 1 <i>Coef.</i>	Model 1 <i>Coef.</i>
Missing	(0.073)	(0.061)	(0.087)	(0.070)	(0.061)	(0.089)	(0.089)	(0.115)
				0.006	0.018	0.093		0.532***
				(0.142)	(0.134)	(0.161)		(0.160)
Non-married (ref.= married)	-0.004*	-0.004*	-0.004	0.080	0.040	-0.052	-0.036	-0.013
	(0.002)	(0.002)	(0.003)	(0.069)	(0.054)	(0.103)	(0.063)	(0.075)
Number of adult	0.007	0.015	0.010	-0.043	-0.010	0.061	0.025	-0.028
	(0.031)	(0.024)	(0.036)	(0.035)	(0.028)	(0.040)	(0.030)	(0.042)
Number of children	0.008	-0.006	0.015	0.022	0.003	0.057	0.020	-0.048*
	(0.016)	(0.012)	(0.032)	(0.018)	(0.014)	(0.037)	(0.019)	(0.022)
Partner working status (ref.= partner is employed)								
Not working partner	0.028	-0.020	-0.062	0.090*	0.078*	0.034	-0.125	0.091
	(0.069)	(0.063)	(0.082)	(0.039)	(0.032)	(0.050)	(0.095)	(0.055)
Missing case	-0.330	-0.247	-0.454				-0.285	
	(0.197)	(0.190)	(0.289)				(0.351)	
Income-to-needs ratio (ref.= less than 1)								
1~2	-0.026	-0.025	0.002	0.086	0.075	0.094	-0.001	-0.270***
	(0.060)	(0.056)	(0.087)	(0.068)	(0.061)	(0.085)	(0.065)	(0.078)
2~3	-0.080	-0.052	-0.021	0.044	0.046	-0.024	0.046	-0.160
	(0.064)	(0.058)	(0.097)	(0.074)	(0.063)	(0.103)	(0.070)	(0.088)
3~4	-0.105	-0.083	-0.113	0.050	0.044	-0.007	0.042	-0.187*
	(0.069)	(0.061)	(0.103)	(0.075)	(0.064)	(0.109)	(0.074)	(0.088)
4~5	-0.092	-0.076	-0.171	-0.012	0.028	0.003	0.003	-0.218*
	(0.077)	(0.069)	(0.109)	(0.084)	(0.071)	(0.117)	(0.082)	(0.103)
More than 5	-0.120	-0.094	-0.186	0.025	0.041	-0.050	0.009	-0.307**
	(0.075)	(0.068)	(0.114)	(0.081)	(0.068)	(0.121)	(0.080)	(0.101)
Region (ref.= urban area)								
Urban cluster	-0.051	-0.024	0.031	0.053	0.041	0.083	-0.003	-0.110
	(0.050)	(0.035)	(0.092)	(0.053)	(0.037)	(0.093)	(0.051)	(0.071)

Table 5.2. The Association between Workplace Flexibility and Couples' Interaction (continued)

	Couples' negative interaction						Couples' positive interaction	
	<i>Mothers</i>			<i>Resident Fathers</i>			<i>Mothers</i>	<i>Resident Fathers</i>
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 1
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Rural area	-0.036 (0.043)	-0.035 (0.030)	0.024 (0.094)	-0.090 (0.053)	-0.061 (0.037)	0.077 (0.100)	0.033 (0.044)	0.044 (0.056)
Child age	-0.000 (0.001)	-0.000 (0.001)	-0.002 (0.003)	-0.000 (0.001)	0.000 (0.001)	-0.001 (0.005)	0.017 (0.014)	0.007 (0.018)
Girl (compare to boy)	-0.063* (0.031)	-0.038 (0.022)		-0.000 (0.036)	0.004 (0.024)		-0.021 (0.033)	-0.033 (0.040)
Low-birth weight	-0.088* (0.044)	-0.059 (0.031)		-0.047 (0.049)	-0.039 (0.034)		0.058 (0.048)	-0.019 (0.067)
Primary care arrangement (ref.= <i>parental care</i> )								
Relative care	0.069 (0.049)	0.053 (0.042)	0.004 (0.063)	0.041 (0.059)	-0.023 (0.052)	-0.022 (0.065)	-0.021 (0.057)	-0.047 (0.069)
Nonrelative care	-0.017 (0.049)	-0.024 (0.041)	-0.075 (0.052)	0.008 (0.056)	-0.010 (0.045)	0.024 (0.058)	-0.056 (0.055)	0.019 (0.063)
Center care	0.009 (0.038)	0.012 (0.033)	0.004 (0.038)	0.000 (0.044)	-0.020 (0.039)	-0.014 (0.045)	-0.057 (0.056)	-0.061 (0.073)
Type of occupation (ref.= <i>management/business/financial/professionals</i> )								
Service	-0.009 (0.055)	-0.010 (0.047)	-0.027 (0.070)	0.057 (0.062)	0.041 (0.050)	-0.060 (0.088)	0.001 (0.064)	-0.102 (0.087)
Sales/office/admin support	-0.068 (0.045)	-0.058 (0.036)	-0.080 (0.058)	-0.073 (0.050)	-0.036 (0.039)	0.033 (0.055)	0.005 (0.050)	0.037 (0.061)
Farming/construction/maintenance	-0.093 (0.143)	-0.134 (0.103)	-0.221 (0.180)	-0.004 (0.055)	0.013 (0.041)	0.134 (0.074)	-0.047 (0.146)	-0.085 (0.069)
Production/transportation/military	-0.013 (0.096)	0.040 (0.074)	0.062 (0.158)	-0.002 (0.058)	0.041 (0.046)	0.070 (0.076)	-0.083 (0.122)	0.011 (0.070)
Unemployed	-0.237*** (0.050)	-0.152*** (0.042)	-0.086 (0.069)	0.039 (0.086)	0.040 (0.073)	-0.064 (0.096)	0.069 (0.064)	0.050 (0.104)

Table 5.2. The Association between Workplace Flexibility and Couples' Interaction (continued)

	Couples' negative interaction						Couples' positive interaction	
	<i>Mothers</i>			<i>Resident Fathers</i>			<i>Mothers</i>	<i>Resident Fathers</i>
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 1
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Work schedule (ref.= <i>day shift</i> )								
Evening/night shift	0.023 (0.059)	-0.020 (0.053)	-0.106 (0.092)	0.054 (0.060)	0.042 (0.052)	-0.029 (0.080)	-0.019 (0.065)	-0.178* (0.078)
Rotating/split shift	-0.017 (0.056)	0.005 (0.046)	-0.027 (0.054)	0.077 (0.053)	0.060 (0.044)	0.010 (0.070)	0.025 (0.069)	-0.121 (0.084)
Two or more jobs	0.014 (0.063)	0.009 (0.052)	0.004 (0.071)	0.065 (0.060)	0.014 (0.045)	-0.139* (0.070)	-0.049 (0.079)	-0.051 (0.076)
Self-employed	-0.029 (0.077)	0.000 (0.060)	0.070 (0.075)	0.047 (0.078)	0.056 (0.062)	0.093 (0.083)	0.205** (0.070)	0.152 (0.088)
Lagged relationship happiness (ref.= <i>fairy happy /not too happy</i> )								
Very happy		0.484*** (0.019)			0.506*** (0.018)		0.101* (0.047)	
Missing case		-0.065 (0.068)			0.189** (0.061)		0.069 (0.056)	
Access to flextime	-0.021 (0.035)	0.012 (0.030)	0.019 (0.040)	-0.064 (0.033)	-0.053* (0.027)	0.019 (0.038)	0.075 <sup>p</sup> (0.040)	0.125** (0.042)
Working from home	-0.095* <sup>a</sup> (0.043)	-0.072* <sup>b</sup> (0.035)	-0.011 (0.047)	0.057 <sup>a</sup> (0.039)	0.072* <sup>b</sup> (0.031)	0.046 (0.043)	0.101* (0.047)	0.002 (0.053)
Part-time employment	-0.071 (0.040)	-0.030 (0.034)	0.025 (0.054)	-0.119 (0.076)	-0.078 (0.064)	-0.058 (0.082)	0.085 (0.046)	0.067 (0.102)
R <sup>2</sup>	0.040	0.241	0.015	0.041	0.253	0.031	0.062	0.072
Number of case (Number of individuals)	9,450 (4,750)	9,500 (4,750)	9,500 (4,750)	7,400 (3,700)	7,400 (3,700)	7,400 (3,700)	4750	3,700

Notes: The model 1 is a pooled regression model. Model 2 is a LDV model that additionally controls for outcome measure from the previous wave. Model 3 is a FE model. Weight provided by ECLS-B was adjusted for all models. The sample is limited to two-parent families, excluding single mothers. For the couples' positive interaction, only the cross-sectional regression model (model 1) was conducted due to the measurement availability. Across models, sharing the same superscript letter (a,b) indicates that the coefficients are significantly different from each other at p<.05. Standard error was reported in the parenthesis. p= this estimate became significant (p<.05) when adding flextime separately in the model (see Appendix Table B.3). Coef, coefficient.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 5.2 presents the results of associations between the three types of workplace flexibility and two types of couples' interaction: 1) negative interaction and 2) positive interaction. The negative-interaction aims to capture the frequency of having arguments with his or her partner about diverse domains, such as household chores and responsibilities, children, money, and leisure time, with a higher score indicating more frequent negative interactions. The positive-interaction measure the frequency of having positive interaction between partners, such as talking to each other about their day, calmly discuss something, and laughing together, with a higher score indicating greater positive interaction. As the couples' positive interaction was measured once in wave 2 only, the cross-sectional regression models were conducted for this outcome. The sample is limited to two-parent families for all models.

The results for mothers show that working from home was significantly associated with less-frequent negative interaction, although the significance and magnitude of the estimate decreased in the FE model. Specifically, mothers with the option of work from home reported .07 lower standard deviation in negative interaction. In addition, mothers with the option of work from home also reported more frequent positive interactions with their partner by .10 higher standard deviation in positive interaction. This finding highlights the positive impact of mothers' ability to work from home that it may reduce negative interaction and promote positive interaction with partners for mothers. The results also found that mothers with flextime reported more frequent positive interactions with their partner while flextime was not associated with couples' negative interaction for mothers. Part-time employment for mothers was not associated with couples' negative and positive interaction.

In the resident-father sample, flextime was related to less negative interaction with their partner in the LDV model (model 2). However, the estimate became nonsignificant in the FE

model. Flextime for fathers also was associated with more-frequent positive interaction, suggesting a positive impact from flextime on couples' interaction. This is consistent with the previous finding of the positive influence of flextime on couples' relationship happiness. On the contrary, working from home for fathers was associated with increased negative interaction with their partner, particularly in the LDV model, with .07 higher standard deviation in negative interaction. Similar to the finding from mothers, part-time employment was not significantly associated with couples' negative and positive interaction although the associations were in expected directions.

Regarding gender differences, the results show that the associations between working from home and couple's negative interaction were significantly different by gender. Consistent with the results on relationship happiness, working from home for mothers were associated with reduced negative interaction within couples, by .07 to .09 standard deviations, while working from home for fathers was related to elevated negative interaction, by .06 to .07 standard deviations in model 1 and 2, respectively. Figure 5.2 illustrates this varying effect of working from home for mothers and fathers. Mothers with the option of work from home experienced substantially lower negative interaction with their partner than mothers without the ability while fathers with the ability to work from home reported modestly elevated negative interaction compared to fathers without the ability. This finding suggests that the ability to work from home may function differently by gender; it can provide benefit for couples' relationship for mothers, however, it may have disadvantage for fathers' relationship with their partner.

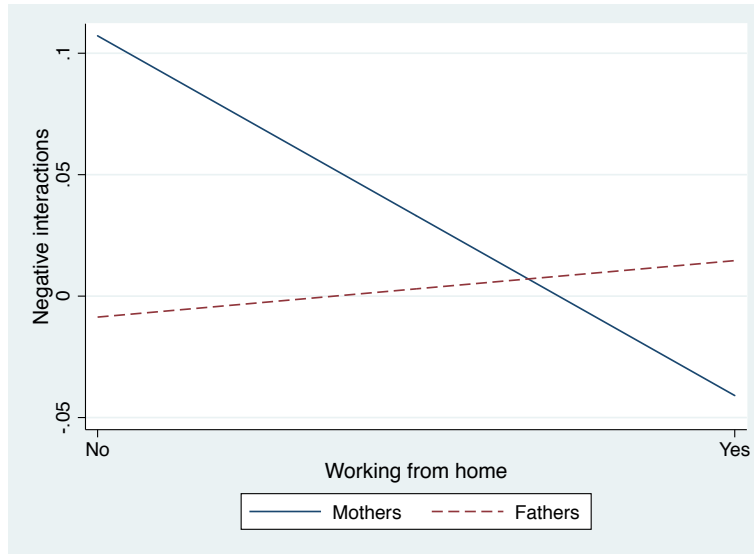


Figure 5.2. Moderating Associations between Working from Home and Couples' Negative Interaction by Gender

### Workplace Flexibility and Household structure

Next, the study examined whether the associations between workplace flexibility and couples' relationship quality vary across different types of household. Given that single mothers did not reside with their partner, the interaction association for single parents was not explored with couples' relationship outcomes. The current tables report only statistically significant (or modestly significant) interaction associations, and all interaction results are reported in Appendix D.

Table 5.3. Interaction Effect of Workplace Flexibility with Household Type for Resident Fathers

Couples' negative interaction	
	<i>Coef</i>
Dual-earner	0.133** (0.041)
Access to flextime	0.016 (0.041)
Access to flextime x dual-earner	-0.101 <sup>a</sup> (0.053)
7,400 (3,700)	

*Notes:* The cross-sectional model was estimated for basic care interaction among mothers. The LDV model was estimated for couples' negative interaction among fathers. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families. Coef, coefficient. a:  $p = 0.055$

\*\*  $p < 0.01$ ,

Table 5.3. presents the result that examined whether workplace influences couples' interaction differently between fathers from dual-earner households and fathers from single-earner/two-parent households. The interaction result shows that the interaction term of flextime with dual-earner households was significant, indicating that the association between flextime and couples' negative interaction was more negative for dual-earner fathers compared to single-earner fathers. Figure 5.3. presents this varying association by household type that dual-earner fathers with flextime reported lower negative interaction with partners than fathers without flextime while single-earner fathers reported similar level of negative interaction regardless of having access to flextime. It should be also noted that dual-earner fathers consistently reported greater negative interaction than single-earner fathers. This finding suggests that fathers from dual-earner households benefit from flextime for decreasing their negative interaction with their partner while single-earner fathers do not. The finding partially supports *H6* that fathers from dual-earner households benefit more from workplace flexibility than fathers from single-earner



households. However, the rest of associations were not significantly different across fathers from dual-earner and single-earner households.

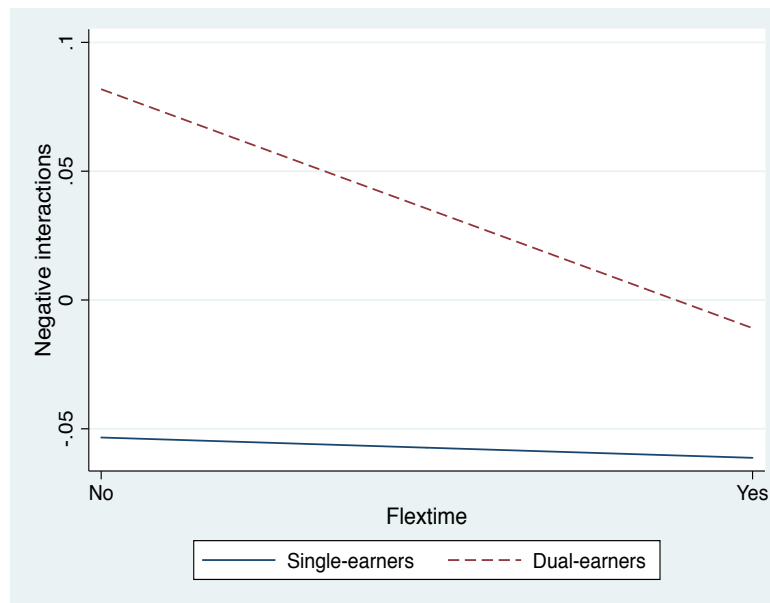


Figure 5.3. Flextime and Couples' Negative Interaction by Household Type among Fathers

### Workplace Flexibility and Household Income

To examine the moderating associations of workplace flexibility and couples' relationship quality by household income (RQ4), the interaction analyses were conducted separately for mothers and fathers. The current tables report only statistically significant interaction associations, and all interaction results are reported in Appendix D.

Table 5.4. The Association between Working from Home and Couples' Negative interaction for Fathers

	Couples' negative interaction
	<i>Coef</i>
Low income	-0.009 (0.040)
Working from home	0.016 (0.033)
Working from home x low income	0.242** (0.085)
N	7,400

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient

\*\* p<0.01

Table 5.4 presents the interaction result that the interaction term of working from home with low-income households was significant, indicating that the association between working from home and couples' negative interaction was more pronounced among low-income fathers than mid- and high-income fathers. This varying association by household type is clearly presented in Figure 5.4. Working from home was associated with increased negative interaction between partners for low-income fathers while it was not associated with negative interaction for mid- and high-income fathers. This finding indicates that working from home may negatively influence couples' interaction, especially for low-income fathers, contradicting *H10* that the association between workplace flexibility and couples' relationship quality would be more positively pronounced among low-income fathers.

However, the interaction analyses for mothers reveal that no significant interaction term of household income with each flexibility indicator was found. This result confirms that

household income do not moderate the associations between workplace flexibility and couples' relationship quality for mothers, disproving *H8*

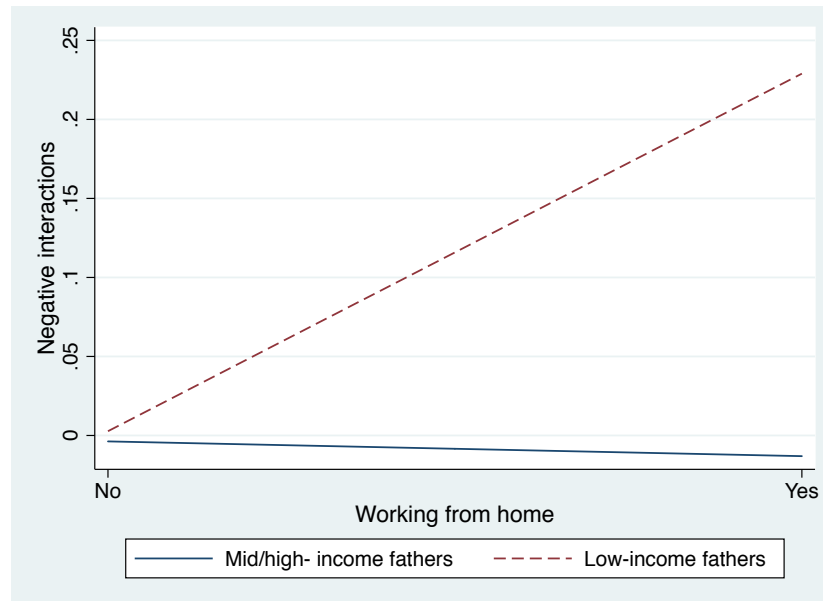


Figure 5.4. Working from Home and Couples' Negative interaction by Household Income among Fathers

### Summary of Findings

Overall, the results confirm that couples' relationship quality for mothers and fathers varies with different forms of workplace flexibility. As expected, among mothers, the ability to work from home was associated with fewer negative interactions and more positive interactions with their partners. Mothers in part-time employment also reported higher-quality relationships than mothers working full-time, however, mothers' part-time employment was not associated with couples' positive and negative interactions. Mothers' flextime was associated only with more frequent positive interactions. Among fathers, flextime was consistently associated with higher relationship quality, fewer negative interactions, and more positive interactions with their

partners. In contrast, working from home was associated with increased negative interactions for fathers. Fathers' part-time employment was not associated with any couples' relationship outcomes.

In the fixed-effects model—robust analyses that controlled for unobserved heterogeneity—all of these estimates became nonsignificant, with the exception of flextime for fathers. The insignificance of findings in the FE models indicates that results from the pooled-regression (or logistic regression) and LDV models may be overestimated because of omitted-variable bias. However, due to the reduced cases and increased standard errors in the FE model, the representativeness of estimates is limited. For associations between workplace flexibility and outcome measures, estimates from the LDV models should therefore be considered upper bound, and those from the FE models should be viewed as lower bound.

On that basis, the results for working from home and part-time employment for mothers and flextime for fathers support H1, which proposes a positive association between workplace flexibility and couples' relationship quality. This finding aligns with previous studies demonstrating the positive impact of workplace flexibility on marital quality (Carson et al., 2010; Erikson et al., 2010; Rogers, 1996; Stains and Pleck, 1984). The present study further reveals that distinctive forms of workplace flexibility such as mothers' ability to work from home and fathers' flextime have a consistently beneficial effect on the relationship between working parents with young children. In contrast, the findings suggest that fathers working from home can have a harmful effect on couples' relationships, so contradicting *H1*.

Fathers' flextime and working from home also have clear implications in the context of household structure. As expected, flextime is of greater benefit among dual-earner fathers than

among single-earner fathers in reducing couples' negative interactions, suggesting that dual-earner fathers are more advantaged by flextime. However, for low-income fathers, working from home was more negatively associated with couples' negative interactions, so contradicting *H10*.

## CHAPTER VI: WORKPLACE FLEXIBILITY AND PARENT-CHILD INTERACTION

This chapter describes the analyses performed to address the second research question, investigating how three distinctive types of workplace flexibility are associated with parent-child interaction. Two distinct types of parent-child interaction were measured: 1) social-recreational interaction and 2) basic care interaction. Models in which the three types of workplace flexibility were estimated simultaneously are reported here; models in which each flexibility was separately added are presented in Appendix B. As in the previous chapter, three analytic models (pooled-logistic regression, lagged-dependent variable, and fixed-effects) were sequentially presented, and gender interaction was analyzed using the combined sample of mothers and fathers. The second half of this chapter also addresses research questions 3 and 4 by investigating whether associations between workplace flexibility and parent-child interaction differ across household structure and household income.

### Workplace Flexibility and Social-recreational interaction with Children

Table 6.1. The Association between Workplace Flexibility and Social-recreational interaction

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Race (ref.= white)						
African-American	-0.194*** (0.024)	-0.108*** (0.018)		-0.155** (0.051)	-0.103** (0.039)	
Hispanic	-0.185*** (0.022)	-0.106*** (0.016)		-0.054 (0.036)	-0.021 (0.027)	
Asian	-0.229*** (0.024)	-0.126*** (0.017)		-0.189*** (0.038)	-0.102*** (0.026)	
Indian/other	-0.038 (0.035)	-0.018 (0.025)		-0.031 (0.080)	-0.023 (0.057)	
Missing				0.092 (0.129)	0.096 (0.089)	
Parent's age	-0.004** (0.001)	-0.004*** (0.001)	-0.018 (0.019)	-0.004* (0.002)	-0.002 (0.001)	-0.034 (0.033)

Table 6.1. The Association between Workplace Flexibility and Social-recreational interaction (continued)

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Education (ref.= less than high school)						
High school graduate	0.087*** (0.024)	0.039* (0.019)	0.006 (0.046)	-0.036 (0.043)	-0.036 (0.033)	-0.060 (0.067)
Some college	0.153*** (0.026)	0.081*** (0.020)	0.031 (0.054)	0.014 (0.044)	-0.007 (0.033)	-0.066 (0.072)
Bachelor and more	0.218*** (0.031)	0.124*** (0.023)	0.068 (0.069)	0.091 (0.050)	0.051 (0.036)	-0.046 (0.095)
Parent's self-rated health (ref.= fair/poor)						
Good	0.021 (0.027)	0.036 (0.024)	0.053 (0.032)	-0.016 (0.041)	0.004 (0.036)	0.049 (0.042)
Very good	0.063* (0.027)	0.045* (0.023)	0.051 (0.033)	0.093* (0.041)	0.093** (0.034)	0.115* (0.045)
Excellent	0.107*** (0.028)	0.082*** (0.023)	0.077* (0.036)	0.160*** (0.044)	0.129*** (0.036)	0.099 (0.053)
Missing				0.034 (0.093)	0.028 (0.077)	0.015 (0.095)
Non-married (ref.= married)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	0.052 (0.048)	0.031 (0.041)	-0.030 (0.075)
Number of adult	0.020* (0.010)	0.012 (0.008)	0.023 (0.013)	0.014 (0.019)	0.011 (0.017)	0.002 (0.025)
Number of children	-0.030*** (0.007)	-0.016** (0.005)	-0.001 (0.013)	-0.084*** (0.012)	-0.047*** (0.009)	0.002 (0.022)
Partner working status (ref.= no partner/spouse)						
Working partner	-0.010 (0.021)	0.002 (0.016)	0.034 (0.027)			
Not working partner	-0.022 (0.035)	-0.008 (0.028)	0.016 (0.041)	0.079** (0.025)	0.039 (0.020)	0.071* (0.032)
Missing case	-0.279*** (0.074)	-0.197*** (0.058)	-0.129 (0.082)			
Income-to-needs ratio (ref.= less than 1)						
1~2	0.039 (0.021)	0.028 (0.018)	0.004 (0.025)	-0.018 (0.042)	0.021 (0.038)	0.012 (0.056)
2~3	0.070** (0.027)	0.047* (0.022)	0.045 (0.033)	-0.045 (0.049)	-0.017 (0.040)	-0.031 (0.064)
3~4	0.061* (0.029)	0.044 (0.024)	0.046 (0.036)	-0.053 (0.051)	-0.028 (0.041)	-0.007 (0.069)
4~5	0.126*** (0.032)	0.081** (0.027)	0.019 (0.042)	0.011 (0.057)	0.023 (0.046)	0.030 (0.075)
More than 5	0.110*** (0.032)	0.056* (0.025)	0.012 (0.043)	-0.002 (0.057)	0.028 (0.044)	0.072 (0.077)
Region (ref.= urban area)						
Urban cluster	0.008 (0.022)	0.002 (0.016)	-0.008 (0.046)	-0.043 (0.035)	-0.032 (0.027)	-0.074 (0.078)
Rural area	0.002	-0.002	-0.040	-0.003	0.022	-0.052

Table 6.1. The Association between Workplace Flexibility and Social-recreational interaction (continued)

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Child age	(0.021) 0.000 (0.000)	(0.016) 0.000 (0.000)	(0.048) 0.002 (0.002)	(0.035) 0.001 (0.001)	(0.025) 0.001 (0.001)	(0.074) 0.002 (0.003)
Girl (compare to boy)	0.037* (0.015)	0.020* (0.010)		-0.035 (0.023)	-0.038* (0.017)	
Low-birth weight	0.048** (0.017)	0.036** (0.012)		0.079* (0.038)	0.063* (0.028)	
Primary care arrangement (ref.= <i>parental care</i> )						
Relative care	-0.020 (0.022)	-0.026 (0.019)	-0.016 (0.026)	-0.028 (0.038)	-0.012 (0.032)	0.046 (0.043)
Nonrelative care	-0.126*** (0.023)	-0.100*** (0.020)	-0.035 (0.027)	-0.013 (0.036)	0.005 (0.030)	0.020 (0.040)
Center care	-0.060*** (0.018)	-0.053*** (0.016)	-0.036 (0.019)	0.029 (0.028)	0.025 (0.025)	0.057* (0.029)
Type of occupation (ref.= <i>management/business/financial/professionals</i> )						
Service	0.042 (0.026)	0.037 (0.021)	0.029 (0.030)	0.040 (0.038)	0.013 (0.032)	-0.029 (0.052)
Sales/office/admin support	-0.052* (0.022)	-0.035* (0.018)	-0.011 (0.027)	-0.047 (0.037)	-0.045 (0.029)	-0.047 (0.046)
Farming/construction/maintenance	0.001 (0.089)	-0.022 (0.083)	-0.051 (0.128)	-0.002 (0.036)	-0.003 (0.029)	-0.005 (0.051)
Production/transportation/military	0.024 (0.039)	0.030 (0.031)	0.038 (0.052)	0.071 (0.038)	0.053 (0.030)	0.038 (0.049)
Unemployed	0.140*** (0.024)	0.099*** (0.020)	0.059 (0.031)	0.298*** (0.053)	0.262*** (0.048)	0.325*** (0.065)
Work schedule (ref.= <i>day shift</i> )						
Evening/night shift	-0.006 (0.026)	0.007 (0.022)	0.018 (0.031)	0.032 (0.040)	0.028 (0.033)	0.074 (0.055)
Rotating/split shift	0.055* (0.027)	0.025 (0.022)	-0.006 (0.028)	-0.015 (0.036)	0.003 (0.029)	-0.029 (0.040)
Two or more jobs	-0.014 (0.034)	-0.003 (0.027)	-0.008 (0.032)	-0.053 (0.041)	-0.010 (0.033)	0.101* (0.051)
Self-employed	0.032 (0.048)	0.036 (0.037)	0.029 (0.047)	-0.063 (0.049)	-0.042 (0.041)	-0.074 (0.057)
Lagged social-recreational interaction		0.479*** (0.011)			0.483*** (0.017)	
Missing case					-0.047 (0.040)	
Access to flextime	-0.002 (0.017)	-0.007 (0.014)	-0.009 (0.019)	0.013 (0.022)	0.004 (0.018)	-0.025 (0.024)
Working from home	0.068** <sup>a</sup> (0.022)	0.047** (0.018)	0.009 (0.026)	0.010 <sup>a</sup> (0.028)	0.011 (0.022)	0.048 (0.031)



Table 6.1. The Association between Workplace Flexibility and Social-recreational interaction (continued)

	<i>Mothers</i>			<i>Resident Fathers</i>		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Part-time employment	0.084*** (0.019)	0.056*** (0.016)	0.026 (0.022)	0.153** (0.052)	0.110** (0.041)	0.115** (0.044)
R <sup>2</sup>	0.100	0.290	0.010	0.071	0.265	0.039
Number of case (Number of individuals)	15,400 (7,700)	15,400 (7,700)	15,400 (7,700)	7,600 (3,800)	7,600 (3,800)	7,600 (3,800)

Notes: Model 1 is a pooled regression model. Model 2 is a LDV model that additionally controls for outcome measure from the previous wave. Model 3 is a FE model. Across models, sharing the same superscript letter (a) indicates that the coefficients are significantly different from each other at  $p < .05$ . Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. Coef, coefficient.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

Table 6.1 presents the associations between workplace flexibility and social-recreational parent-child interaction (e.g., reading books, telling stories, singing songs, playing games, and taking children outside) for mothers and resident fathers. Among mothers, the results showed that working from home and part-time employment were consistently associated with more frequent social-recreational interactions in models 1 and 2. Mothers with the ability to work from home reported .05 higher standard deviation in social-recreational interaction than mothers without it in the LDV model. Similarly, mothers working part-time had .06 higher standard deviation in social-recreational interaction with their children, compared with mothers working full-time. The slightly bigger coefficient of part-time employment suggests that part-time employment shows a stronger association with social-recreational interaction than working from home. The magnitudes of estimates on mothers working from home and part-time fell to .01 and .03, respectively, in the FE model (Model 3), indicating that these associations can be modest in their size and significance in the robust model. Yet, mothers' flextime was not a significant predictor of social-recreational interaction, and its coefficients were even slightly

negative. These findings suggest that mothers able to work from home or part time more frequently interact with their children in social-recreational activities, partially supporting *H3*.

Among fathers, only part-time employment consistently showed significant positive associations with social-recreational interaction, by .11 to .12 standard deviations. However, given that only 5 percent of fathers were working part-time, only a small portion of fathers experienced the benefits of increased interaction with their children. Working from home for fathers yielded small, but positive associations with social-recreational interaction, although none of them was statistically significant. The significant positive association of part-time employment for both mothers and resident fathers suggested that part-time employment allows both parents to increase social-recreational activities with their children.

In terms of the gender differences, the result shows that working from home functions differently for mothers and fathers. Working from home for mothers was significantly positively associated with social-recreational interaction with their children, while working from home for fathers was weakly positively associated with social-recreational interaction (please see Figure 6.1). This finding partially supports *H4*, that workplace flexibility, particularly working from home, is more positively associated with parent-child interaction. However, the associations of flexible schedules and part-time employment with parent-child interaction were not significantly different for mothers and fathers, thereby not supporting *H4*.

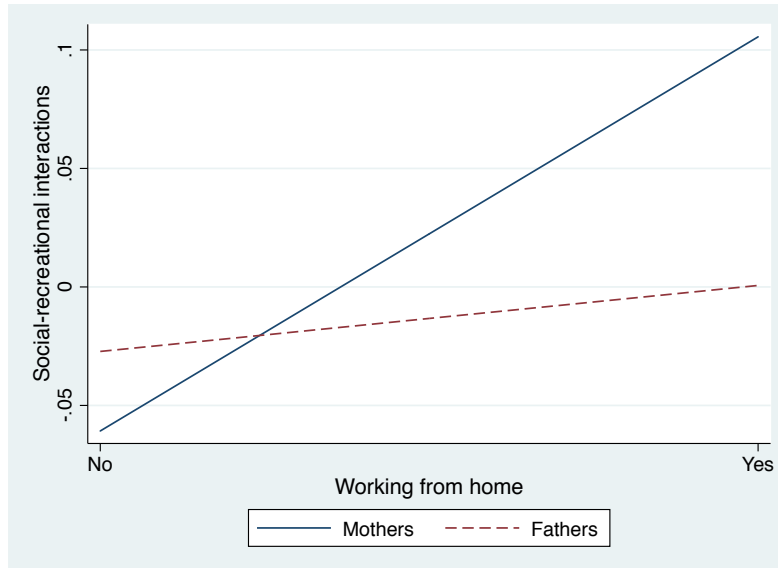


Figure 6.1. Moderating Association between Working from home and Social-recreational Interaction by Gender

### Workplace Flexibility and Basic Care Interaction

Table 6.2. The Association between Workplace Flexibility and Basic Care Interaction

	<i>Mothers</i>		<i>Resident Fathers</i>	
	Model 1	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Race (ref.= white)				
African-American	0.022 (0.052)	0.069 (0.070)	-0.030 (0.056)	
Hispanic	0.093* (0.044)	0.007 (0.059)	0.012 (0.042)	
Asian	0.024 (0.046)	-0.111* (0.056)	-0.065 (0.039)	
Indian/other	0.059 (0.076)	0.185 (0.139)	0.126 (0.090)	
Missing		0.275 (0.168)	0.234 (0.125)	
Parent's age	0.006* (0.003)	-0.008* (0.003)	-0.003 (0.002)	-0.016 (0.051)
Education (ref.= less than high school)				
High school graduate	0.062 (0.058)	0.057 (0.072)	0.002 (0.058)	-0.215 (0.119)
Some college	0.042 (0.060)	0.077 (0.075)	0.017 (0.058)	-0.190 (0.130)
Bachelor and more	0.118 (0.066)	0.133 (0.080)	0.072 (0.061)	-0.297 (0.173)

Table 6.2. The Association between Workplace Flexibility and Basic Care Interaction (continued)

	<i>Mothers</i>		<i>Resident Fathers</i>	
	Model 1	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
Parent's self-rated health (ref.= fair/poor)				
Good	-0.099 (0.060)	0.007 (0.065)	0.025 (0.058)	0.122 (0.071)
Very good	-0.024 (0.057)	0.121 (0.065)	0.092 (0.056)	0.110 (0.078)
Excellent	-0.037 (0.060)	0.154* (0.069)	0.115* (0.059)	0.054 (0.091)
Missing		-0.063 (0.156)	-0.058 (0.138)	0.012 (0.160)
Non-married (ref.= married)	0.002 (0.002)	0.102 (0.078)	0.048 (0.061)	0.014 (0.137)
Number of adult	-0.022 (0.025)	0.018 (0.032)	0.011 (0.026)	0.019 (0.047)
Number of children	-0.094*** (0.016)	-0.020 (0.018)	-0.011 (0.013)	0.038 (0.034)
Partner working status (ref.= no partner/spouse)				
Working partner	0.064 (0.050)			
Not working partner	-0.062 (0.092)	0.346*** (0.037)	0.219*** (0.030)	0.288*** (0.051)
Missing case	0.284 (0.166)			
Income-to-needs ratio (ref.= less than 1)				
1~2	0.004 (0.052)	0.019 (0.070)	0.066 (0.063)	-0.044 (0.095)
2~3	0.060 (0.059)	0.027 (0.076)	0.065 (0.063)	-0.048 (0.109)
3~4	-0.061 (0.064)	-0.015 (0.081)	0.033 (0.068)	-0.010 (0.123)
4~5	-0.012 (0.075)	0.025 (0.087)	0.068 (0.072)	-0.015 (0.130)
More than 5	-0.056 (0.068)	0.005 (0.085)	0.041 (0.070)	-0.008 (0.134)
Region (ref.= urban area)				
Urban cluster	0.044 (0.045)	-0.184*** (0.056)	-0.137** (0.044)	-0.313* (0.143)
Rural area	0.125** (0.042)	-0.086 (0.053)	-0.046 (0.038)	-0.037 (0.129)
Child age	-0.037*** (0.004)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.004)
Girl (compare to boy)	-0.047 (0.030)	-0.118** (0.036)	-0.079** (0.025)	
Low-birth weight	0.175***	0.142**	0.083*	

Table 6.2. The Association between Workplace Flexibility and Basic Care Interaction (continued)

	<i>Mothers</i>	<i>Resident Fathers</i>		
	Model 1	Model 1	Model 2	Model 3
	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>	<i>Coef.</i>
	(0.038)	(0.053)	(0.039)	
Primary care arrangement (ref.= <i>parental care</i> )				
Relative care	0.046 (0.060)	0.061 (0.059)	0.052 (0.049)	0.048 (0.073)
Nonrelative care	-0.071 (0.067)	0.077 (0.055)	0.054 (0.044)	0.007 (0.064)
Center care	0.136** (0.042)	0.155*** (0.046)	0.113** (0.039)	0.092* (0.046)
Type of occupation (ref.= <i>management/business/financial/professionals</i> )				
Service	-0.034 (0.054)	0.040 (0.063)	-0.021 (0.052)	-0.163 (0.097)
Sales/office/admin support	0.011 (0.046)	-0.084 (0.056)	-0.050 (0.042)	-0.067 (0.063)
Farming/construction/maintenance	0.094 (0.162)	-0.093 (0.055)	-0.074 (0.043)	-0.036 (0.078)
Production/transportation/military	0.017 (0.084)	0.021 (0.060)	0.001 (0.048)	0.011 (0.085)
Unemployed	0.167*** (0.050)	0.426*** (0.080)	0.356*** (0.068)	0.372*** (0.100)
Work schedule (ref.= <i>day shift</i> )				
Evening/night shift	-0.077 (0.062)	0.146* (0.064)	0.083 (0.056)	0.108 (0.093)
Rotating/split shift	-0.157** (0.059)	-0.005 (0.055)	-0.011 (0.046)	-0.022 (0.072)
Two or more jobs	-0.176* (0.075)	-0.180** (0.063)	-0.091 (0.051)	0.040 (0.078)
Self-employed	0.093 (0.086)	-0.034 (0.084)	0.027 (0.064)	-0.013 (0.090)
Lagged social-recreational interaction			0.481*** (0.017)	
Missing case			-0.008 (0.063)	
Access to flextime	0.015 (0.038)	0.020 (0.033)	0.041 (0.027)	0.011 (0.039)
Working from home	0.074 <sup>a</sup> (0.044)	-0.033 <sup>a</sup> (0.039)	-0.019 (0.031)	0.090* (0.044)
Part-time employment	0.146*** (0.042)	0.190** (0.072)	0.113 (0.060)	0.120 (0.084)
R <sup>2</sup>	0.059	0.083	0.278	0.044
Number of case	7, 700	7,500	7,500	7,500

(Number of individuals)	(3,750)	(3,750)	(3,750)
Notes: Model 1 is a pooled regression model. Model 2 is a LDV model that additionally controls for outcome measure from the previous wave. Model 3 is a FE model. Weight provided by ECLS-B was adjusted for all models. As basic care interaction was measured for mothers in wave 3 only, the cross-sectional regression model was conducted for mothers. Across models, sharing the same superscript letter (a) indicates that the coefficients are significantly different from each other at $p < .05$ . Standard error was reported in the parenthesis. Coef, coefficient. *** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$			

Table 6.2 presents the associations between workplace flexibility and basic care interaction (e.g., preparing meals, dressing and feeding children, and putting them to bed) across mothers and resident fathers. For mothers, consistent with the results of social-recreational interaction, part-time employment was positively associated with basic care interaction in the cross-sectional model, reporting a .15 higher standard deviation. Although flextime and working from home had a positive association, with coefficients of .02 and .07, respectively, they were not statistically significant. Among fathers, part-time employment was strongly associated with increased basic care interaction, or a .19 higher standard deviation in model 1, but the coefficient size was reduced to .11 and .12 in models 2 and 3, respectively, becoming non-significant and indicating a modest association for part-time employment. Interestingly, working from home was positively related to basic care interaction in the FE model only, suggesting that fathers with the ability to work from home increase interaction with their children in basic care activities. Flextime for fathers consistently was not a significant predictor for basic care interaction. In terms of gender differences, the interaction result found that the association between working from home and basic care interaction was more positive among mothers compared with fathers (see. Figure 6.2), supporting *H4*. This finding suggests that the availability of working from home was particularly beneficial for mothers than fathers to promote interaction with their child.

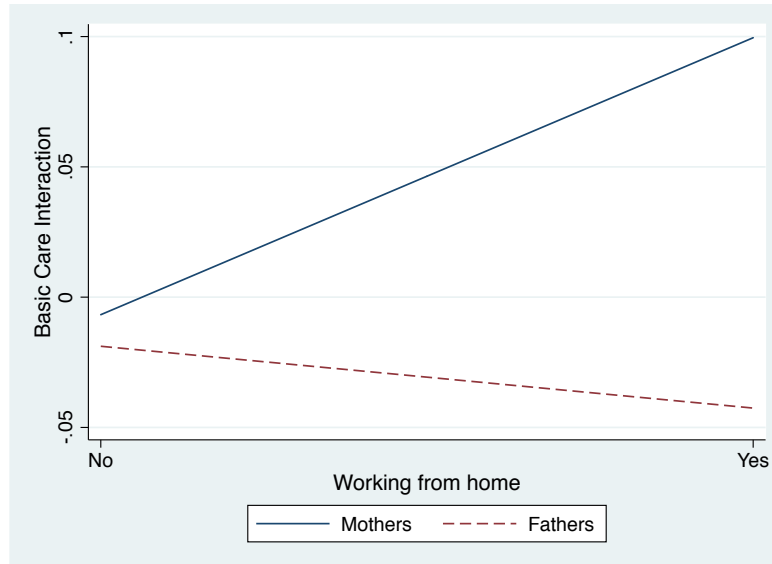


Figure 6.2. Moderating Association between Working from home and Basic Care Interaction by Gender

The sample includes mothers from two-parent and single-parent households, while the father sample only includes fathers from two-parent households. To address this differential sample composition by gender, a robustness test was conducted that compared the estimates for the association between workplace flexibility and parent-child interactions for mothers from two-parent households, excluding single mothers, to the estimates for fathers' (two-parent households, by study design). The full results are reported in Appendix C. In brief, the original findings were confirmed. Working from home and part-time employment were positively associated with social-recreational and basic care interactions among mothers from two-parent households in Models 1 and 2. Regarding gender differences, working from home was more positively associated with social-recreational and basic care interactions for mothers than for fathers, confirming the findings of the original model.

## Workplace Flexibility and Household structure

Table 6.3 presents the interaction results of examining whether the associations between workplace flexibility and parent-child interaction differ across types of households. The current tables report only statistically significant interaction associations, and all interaction results are reported in Appendix D.

Table 6.3 Interaction Effect of Workplace Flexibility with Household Type for Mothers

	Basic care interaction
	<i>Coef</i>
Single mother	-0.016 (0.061)
Part-time employment	0.195*** (0.045)
Par-time x single mother	-0.208 <sup>a</sup> (0.109)
N of observations	7,700

*Notes:* The cross-sectional model was estimated for basic care interaction among mothers. The LDV model was estimated for couples' negative interaction among fathers. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families for couples' relationship quality outcomes. Coef, coefficient. a:  $p = 0.051$   
\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ ,

The results found that the associations between workplace flexibility and parent-child interaction did not vary between mothers from single parent (single mothers) and two-parent households, except in the case of part-time employment. The positive association between part-time employment and basic care interaction decreased for single mothers compared with mothers from two-parent families. As shown in Figure 6.2, the advantage of part-time employment was presented only for mothers from two-parent households (Figure 6.2). This finding suggests that, among single mothers, part-time employment may not increase their basic care interaction with



their children, unlike mothers from two-parent households. This finding disproves *H5*, that single mothers would gain more benefit from workplace flexibility than mothers from two-parent families.

Regarding fathers, none of the interaction of terms of household type (i.e., dual-earner fathers vs. single-earner fathers) was significant, indicating that workplace flexibility influences affects parent-child interaction similarly for dual-earner and single-earner fathers.

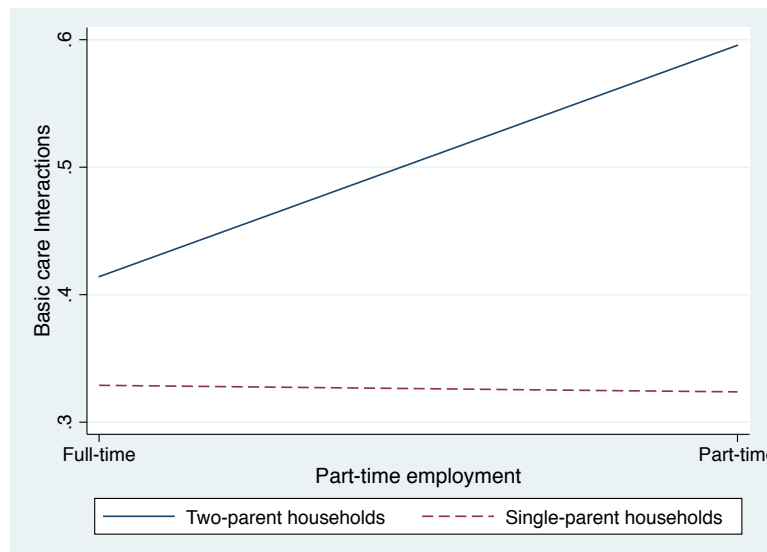


Figure 6.3. Part-time Employment and Basic Care Interaction by Household Type among Mothers

## Workplace Flexibility and Household Income

Table 6.4. Interaction Effect of Workplace Flexibility with Household Income for Mothers

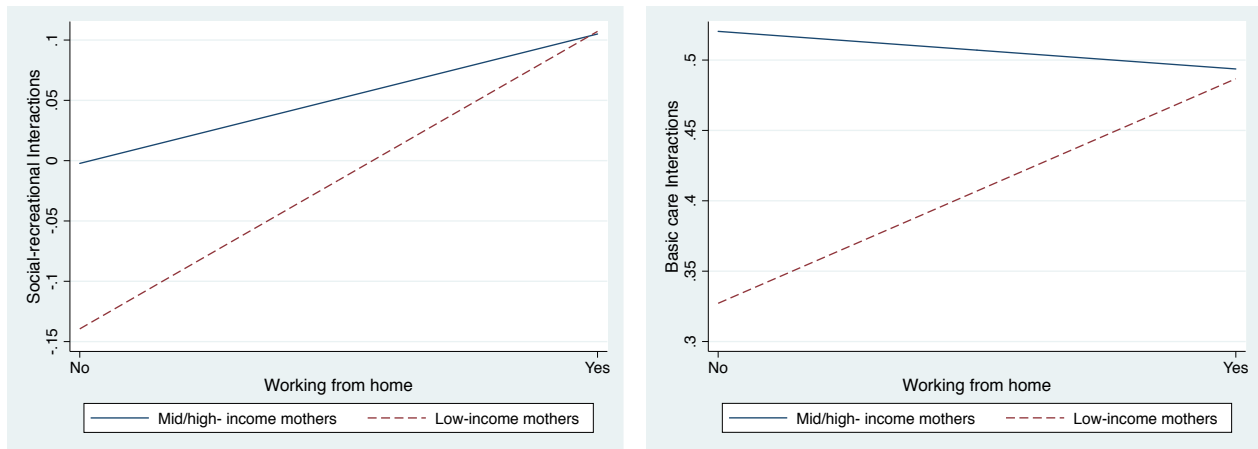
	Social-recreational interaction	Basic care interaction
	<i>Coef</i>	<i>Coef</i>
Low income	-0.032 (0.020)	-0.052 (0.052)
The option of working from home	0.026 (0.020)	0.020 (0.048)
Working from home x low income	0.125** (0.042)	0.220* (0.105)
N	15,400	7,700

Notes: The cross-sectional model was estimated for basic care interaction and the LDV model was estimated for social-recreational interaction. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient

\*\* p<0.01, \* p<0.05

Table 6.4 presents interaction results examining whether the associations of workplace flexibility with parent-child interaction varied by household income for mothers. The interaction term of the low-income (less than 200% of the poverty threshold) with each flexibility indicator was added to the LDV model. The results show that household income did moderate the associations between workplace flexibility and parent-child interaction for mothers in the expected direction, particularly working from home. The positive associations with basic care and social-recreational interaction were more pronounced for low-income mothers than mid- and high-income mothers, indicating that low-income mothers with the ability to work from home increased their parent-child interaction. As shown in Figures 6.3a and 6.3b, low-income mothers without the ability to work from home reported lower levels of social-recreational and basic care interaction compared to mid- and high-income mothers without the ability. This result confirms that the ability to work from home may help narrow such gaps in parent-child interaction for

low-income mothers. Consistent with *H9*, this finding suggests that workplace flexibility can elicit more benefits for parent-child interaction among low-income mothers than among mid- and high-income mothers.



(a) Working from home and social-recreational interaction by household income among mothers

(b) Working from home basic care interaction by household income among mothers

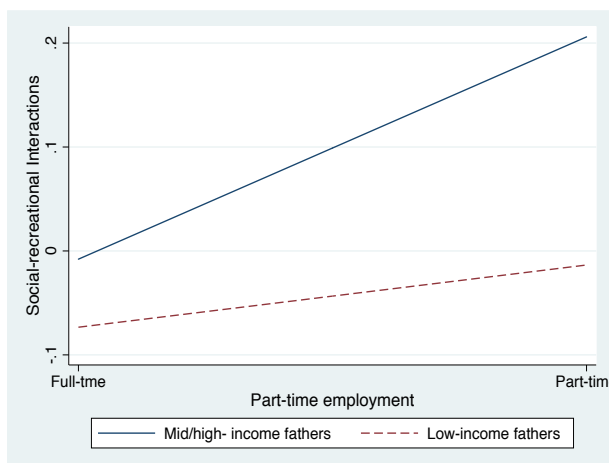
Figure 6.4. Moderating Association between Workplace Flexibility and Parent-child Interaction by Household Income for Mothers

Table 6.5. Interaction Effect of Workplace Flexibility with Household Income for Fathers

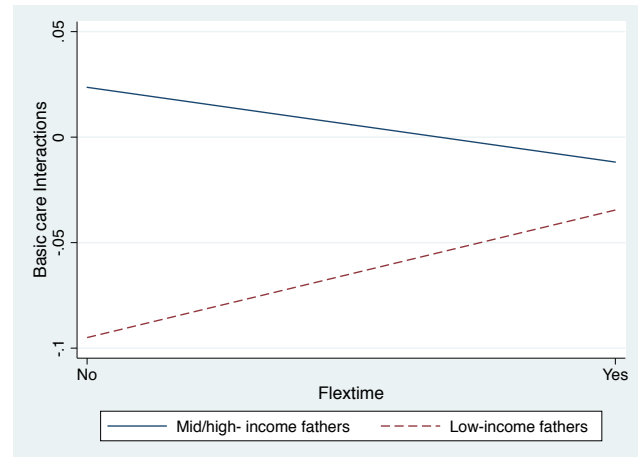
	Social-recreational interaction	Basic care interaction
	<i>Coef</i>	<i>Coef</i>
Low income	0.034 (0.025)	-0.058 (0.046)
Part-time employment	0.196*** (0.055)	
Part-time x low income	-0.173* (0.080)	
Flextime		0.001 (0.030)
Flextime x low income		0.128* (0.064)
N	7,600	7,400

Notes: The LDV models were estimated for both outcomes. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient  
 \*\*\*  $p < 0.001$ , \*  $p < 0.05$

Table 6.5 presents the interaction results examining whether household income moderates associations between workplace flexibility and parent-child interaction for fathers. The results indicate mixed findings depending on type of flexibility and outcomes. The result shows that low-income fathers have disadvantage when working part-time compared to mid- and high-income fathers. Part-time employment was positively associated with social-recreational interaction for mid- and high-income fathers while such positive association of part-time employment substantially decreased for low-income fathers (6.4a). This finding disproves *H11* that fathers from low-income households would benefit more from workplace flexibility than mid- and high-income fathers. However, the interaction effect of flextime on household income supports *H11*. The association between flextime and fathers' basic care interaction was positively stronger for low-income fathers, as shown in 6.4b. This finding suggests that access to flextime promotes fathers' basic care interaction with their children, particularly for low-income fathers.



(a) Part-time employment and social-recreational interaction by household income among fathers



(b) Flextime and basic care interaction by household income among fathers

Figure 6.5. Moderating Association between Workplace Flexibility and Parent-child Interaction by Household Income for Fathers

### Summary of Findings

Among both mothers and fathers, part-time employment was generally modestly associated with increased parent-child interaction. Mothers' working from home was also associated with more frequent social-recreational interactions while fathers' working from home was associated with more frequent basic care interactions. However, the results for the FE models suggest that those estimates are likely to be overestimated because of unobserved parental characteristics, particularly for mothers. These findings provide modest support for *H3*, which proposes a positive association between workplace flexibility and parent-child interaction. The consistent exception is flextime, which was not associated with parent-child interaction for either mothers or fathers. The results also show that the associations between workplace flexibility and parent-child interaction did not vary by gender, except in the case of working from home. As expected, working from home was more strongly associated with social-recreational interactions for mothers than for fathers.

With regard to differences by household structure, the positive association between part-time employment and basic care interaction was more pronounced among mothers from two-parent households. This positive association decreased among single mothers, suggesting a potential disadvantage of part-time employment for single mothers. For fathers, household type did not influence the relationship between workplace flexibility and parent-child interaction, disproving *H7*. In addition, as expected, household income was found to moderate the association between workplace flexibility (especially working from home) and parent-child interaction for mothers, eliciting additional benefits for low-income mothers. Additionally, flextime was more strongly associated with basic care interaction for low-income fathers, supporting *H11*. However, the positive influence of part-time employment on social-recreational

interaction decreased for low-income fathers, suggesting that part-time work may be beneficial only for mid- and high-income fathers.

## CHAPTER VII: DISCUSSION AND CONCLUSION

Managing work and caregiving demands is a key challenge for employed parents. Working parents with young children, such as those in this study, are particularly vulnerable to work-family conflicts because childcare demands and pressure to work long hours to secure financial resources increase simultaneously in this life stage (Erickson et al., 2010). Well-designed work-family policies have the potential to promote child and family wellbeing by helping parents of young children maintain economic security and improve quality parenting. Given the increasing policy and research attention on work-based resources to support working families, workplace flexibility has become an important work benefit to accommodate work and family demands and promote workers' well-being in the U.S. However, serious gaps in knowledge remain about the implications of workplace flexibility on family relationships and how the implications vary across different groups of workers, including fathers with young children. Using nationally representative data for parents with young children in the U.S., the current study examined the associations of three forms of workplace flexibility with couples' relationship quality and parent-child interaction, and further explored whether such associations differed in the contexts of gender and household structure and income.

## Study Findings

Table 7.1 summarizes the main multivariate findings of chapter V and VI as multiple indicators of workplace flexibility and outcomes were examined in the present study. Each superscript letter reports the significant interaction results across household structure and income.

Table 7.1 Summary of Findings from Multivariate Models

	<i>Couples' relationship quality</i>			<i>Parent-child interaction</i>	
	Relationship happiness	Negative interaction	Positive interaction	Social-recreational interaction	Basic care interaction
Access to flextime					
Mothers	n.s.	n.s.	+ (1)	n.s.	n.s.
Fathers	+ (1,2,3)	– (2) <sup>a</sup>	+ (1)	n.s.	n.s. <sup>b</sup>
Gender differences	+ for fathers				
Working from home					
Mothers	+ (1)	– (1,2)	+ (1)	+ (1,2) <sup>c</sup>	n.s. <sup>d</sup>
Fathers	n.s.	+ (2) <sup>e</sup>	n.s.	n.s.	+ (3)
Gender differences	+ for mothers	– for mothers		+ for mothers	+ for mothers
Part-time employment					
Mothers	+ (1,2)	n.s.	n.s.	+ (1,2) <sup>f</sup>	+ (1)
Fathers	n.s.	n.s.	n.s.	+ (1,2,3) <sup>g</sup>	+ (1)
Gender differences	+ for mothers				

Note. n.s.= not significant; Model 1 (1) refers the pooled-regression model with extensive control variables, model 2 (2) refers to the lagged-dependent model, and model 3 (3) refers to the fixed-effects model. If the estimates were significant ( $p < .05$ ) in each specified model, the model number was presented in the parenthesis. Only model 1 was estimated for couples' positive interaction for both parents and basic care interaction for mothers because of the availability of measures. + indicates a positive association and – indicates a negative association. In couples' negative interaction, a higher score indicates greater negative interaction. Gender differences row reports the results of significant gender interaction ( $p < .05$ ) between mothers and fathers. Superscript letter reports the significant interaction result ( $p < .05$ ) across household structure and income. ; a= stronger for dual-earner fathers; b= positive for low-income fathers; c= stronger for low-income mothers; d= positive for low-income mothers; e= stronger for low-income fathers; f= attenuated for single mothers; g= attenuated for low-income fathers.

Overall, the findings confirm that different types of workplace flexibility influence couples' relationship quality and parent-child interaction for mothers and fathers. As each type of workplace flexibility has a distinct effect on family relationship outcomes, the findings are separately discussed for each type of workplace flexibility. It should be noted that as few associations remained significant in the FE models, most findings should not be interpreted as



causal associations. In addition, the study sample included more economically advantaged mothers and fathers than the full sample from the ECLS-B (see p.29). Since advantaged parents likely have greater access to workplace flexibility *and* better relationship quality and more involved in parenting, the findings of the present study may overestimate the associations between workplace flexibility and couples' relationship quality and parent-child interaction.

### **Flexitime**

Regarding couples' relationship quality, flexitime for mothers was significantly associated with more frequent positive interactions but not with relationship happiness or negative interactions. In contrast, fathers' flexitime was consistently associated with greater relationship happiness, lower negative interactions, and greater positive interactions. In particular, one gender difference was that fathers' flexitime had a more positive influence than mothers' flexitime on relationship happiness. This finding partially supports previous evidence for the positive implications of flexitime for marital satisfaction (Erickson et al., 2010; Stains & Pleck, 1984).

However, as women traditionally assign more importance than men to their family role, schedule flexibility was expected to have a more positive impact on mothers than on fathers. The finding contradicts both *H2* and previous studies of flexitime and gender difference (Carson et al., 2010; Erickson et al., 2010; Hill et al., 2013). It seems that while mothers with young children may not actively utilize flexitime to share time with their partner, fathers may utilize schedule flexibility to spend more quality time with their partner. As research evidences that workers face barriers against use of flexible work arrangements, such as managerial resistance, fear of negative career impact, and unsupportive workplace cultures (Schwartz, 1994), it is also possible that working mothers particularly experience such challenges in the use of flexitime in the workplace compared to working fathers.

In addition, the results for moderating role of household structure found that when fathers from dual-earner families have access to flextime, they are more likely to experience fewer negative interactions with their partner. It is possible that fathers from dual-earner households utilize flextime more actively than fathers in single-earner households to spend time with their working partner. As dual-earner parents experience heightened work-family conflicts and time pressures (Bianchi et al., 2006; EOPCEA, 2014), flextime may enable dual-earner fathers to secure quality time with their partner, resulting in decreased negative interactions.

The results found that flextime for both parents was not associated with parent-child interaction, which suggests that working parents may not use their flextime for parenting purposes. As flextime allows for adjustment of start and end times but still requires fixed amounts of time at work, flextime therefore may not provide enough hours for working parents to increase interaction with their children (Kossek, Barber, Winters, 1999).

However, flextime, and especially the association between flextime and basic care interaction, was particularly positive for low-income fathers. This finding suggests that flextime is at least supportive for low-income fathers, facilitating their involvement in basic care practices. Given that low-income fathers have limited workplace and family resources to accommodate both work demands and caregiving responsibilities, they may actively utilize flexible time to engage with their children in basic care activities.

Especially in relation to couples' relationship quality, these findings on flextime generally support the boundary-spanning resource perspective, which suggests that flextime facilitates and enhances coordination of work and family responsibilities by enabling workers to

better accommodate work and family demands (Voydanoff, 2005), resulting in higher couples' relationship quality, particularly for fathers.

### **Working from Home**

Regarding couples' relationship quality, working from home for mothers was consistently associated with improved relationship quality (although only significant in Model 1), less negative interaction, and more positive interaction for couples. Mothers with the ability to work from home may promote their work-family balance and have more quality time with their partner using such flexibility, which may, in turn, lead to greater relationship quality.

In contrast, among fathers, working from home was associated weakly with lower-quality relationships with partners (although not statistically significant), and it was associated with more negative interaction within couples, particularly for low-income fathers. This finding is particularly different from the results for mothers, which demonstrated positive associations from working at home and couples' relationship quality. The finding on gender differences in working from home is consistent with previous studies that have showed that female workers are more likely than male workers to practice flexible work options in order to accommodate family responsibilities (Hill et al., 2013; Sullivan & Lewis, 2001).

However, the finding of modestly negative implications from working at home for fathers is inconsistent with previous studies that have suggested the positive implications from flexible work location (Golden & Simsek, 2006; Igbaria & Guimaraes, 1999). Instead, the finding can support the boundary-blurring perspective that fathers who can work at home may experience elevated stress and conflicts due to the blurred boundary between work and family domains (Ashforth et al., 2000; Shockley & Allen, 2007). As male workers tend to use telecommuting for

work-related reasons (Sullivan & Lewis 2001), when fathers with young children work at home, caregiving demands can interrupt their heightened energy and time for focusing on work-related tasks. Therefore, the diminished relationship that fathers experience with their partners when they work from home may reflect stress and conflicts from the interference between work and family. This explanation is consistent with the descriptive finding (see p.43) that fathers with the option of working from home reported working longer average hours than those without the option. Additionally, traditional gender roles that view fathers as the main breadwinners may explain this finding. As fathers working from home do not conform to a prevailing traditional father image of working full-time outside the home, this incongruity may threaten fathers' masculinity and create conflicts and disputes in their relationships with their partners. This argument may also explain the additional negative implications of working from home for low-income fathers, as working from home may further conflict with their male identity, which already may be damaged by a limited household income.

Regarding parent-child interaction, the study found that working from home for mothers was associated with more frequent social-recreational interactions with their children and working from home for fathers was associated with more frequent basic care interactions. This is consistent with previous findings that working from home increased time spent on child care and shared time with family members (Davis et al., 2015; Estes, 2005; Powell & Craig, 2015; Silver, 1993). The finding suggests that as working from home eliminates commuting time, this saved energy and time are allocated toward child caregiving activities. This finding also is consistent with the boundary-spanning resource perspective that workplace flexibility allows workers to engage in family responsibilities (Voydanoff, 2005). It is interesting to note that working from home promotes different types of parent-child interactions for mothers and fathers. It is possible

that mothers engage in basic care interaction regardless of their ability to work from home, as mothers disproportionately take on caregiving responsibilities. Mothers, therefore, may actively utilize working from home in order to have joint recreational activities with their children, such as playing games and reading books to them. In contrast, when fathers work at home, they may concentrate their time on primary care activities, such as preparing meals, bathing, and putting the child to bed, in order to contribute more effectively to parenting.

Considering U.S. mothers' disproportionate caregiving responsibilities, the ability to work from home was also expected to have greater impacts on parent-child interaction for working mothers with young children compared to working fathers. The result suggests modest gender differences in working from home, finding the associations between working from home and both social-recreational and basic care interactions were more significantly positive for mothers than fathers. Consistent with the results from couples' relationship quality, the finding suggests that mothers may more actively utilize the option of working at home for parenting purposes than fathers (Hill et al., 2013; Sullivan & Lewis, 2001).

The finding also confirms that low-income mothers experienced greater benefits from the ability to work from home than mid- and high-income mothers. Low-income mothers with the ability to work from home reported more frequent social-recreational and basic care interactions than mid- and high-income mothers. This finding is consistent with previous literature that has suggested that low wage working-class workers gain more benefits from workplace flexibility (Bond & Galinsky, 2006; Silver 1993). As low-income working mothers constantly experience time constraints and greater family demands with fewer options to save their time on household and child care responsibilities (Dyk, 2004; Tubbs et al., 2005), the availability of working at home can be a valuable resource for engaging in household work and caregiving activities while

performing work-related tasks. As low-income mothers have limited access to the ability to work from home<sup>12</sup> and reported significantly lower levels of parent-child interaction than mid- and high –income mothers (see p. 37), this finding highlights the importance of workplace flexibility for low-income mothers to mitigate negative consequences caused by limited household income on family interactions.

### **Part-Time Employment**

Overall, part-time employment has a limited influence on couples' relationship quality while it has a greater influence on parent-child interaction for both mothers and fathers. Mothers with part-time employment reported improved relationship happiness compared to those with full-time work. However, part-time work for mothers was not associated with couples' interaction. Among fathers, part-time employment was not consistently associated with couples' relationship quality and interaction between partners. This finding for mothers is consistent with the previous evidence that mothers' part-time work has a benefit for marital quality (Buehler and O'Brien, 2011; Higgins et al., 2004; Rogers, 1996). Mothers with part-time employment may promote relationship happiness by increasing shared time with their partner, compared to those with full-time employment. It is also possible that, as mothers with part-time employment reported better life satisfaction and work-family balance than those with full-time employment, this, in turn, leads to improved relationship quality for mothers. The nonsignificant finding of part-time employment for fathers is also partly consistent with previous evidence that part-time employment has a negative influence on life satisfaction for male workers (Booth & Van Ours, 2009). Although fathers with part-time work experience reduced working hours, they may not allocate saved hours and energy to spending more quality time with their partner. Similar to the

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<sup>12</sup> The descriptive table shows that only 7.7 % of low-income mothers have the option of working from home while 27.4 % of mid-and high-income mothers have the option (see p.37).

ability to work from home, as fathers with part-time employment deviate from a traditional male image of fathers with full-time work (Booth & Van Ours, 2009), this disparity may negatively affect their identity and keep them from engaging in relationships with their partners despite their reduced work hours.

Regarding parent-child interaction, the study found that part-time employment for both parents was associated with more frequent social-recreational interactions. Mother's part-time employment was also related to more frequent basic care interactions. This is consistent with previous findings that mothers with part-time employment invested more time in family life, spending more time on child care activities and household work (Buehler & O'Brien, 2011; Hill et al., 2004). The positive impact of fathers' part-time employment also supports previous evidence that showed reduced working hours for fathers was related to increasing their involvement in parenting (Bonney et al. 1999; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). The finding suggests that as part-time employment reduces work hours, this saved time may be directly allocated toward child caregiving activities. This finding is also consistent with the boundary-spanning resource perspective that workplace flexibility allows workers to engage in family responsibilities (Voydanoff, 2005).

The study also found a few moderating roles in household structure concerning associations between part-time employment and parent-child interaction. The positive effects for workplace flexibility on parent-child interaction were not stronger for single mothers and low-income fathers. Instead, part-time employment was associated with more frequent social-recreational interactions only for mothers from two-parent households and for fathers from mid- and high-income households. It is possible that part-time work may create more stress and challenges for single mothers and low-income fathers because they likely suffer from financial

problems. Such conflicts may limit their ability to actively engage with their children. Additionally, single mothers and low-income fathers may work part-time involuntarily. As employees with involuntary part-time employment are likely to have limited control over their working hours and to experience job insecurity with fewer fringe benefits (Kalleberg, 2000; Lambert et al., 2012; Stratton, 1996; Tilly, 1992), such precarious work conditions may undermine their capacity for parental involvement.

### **Implications of the Study**

The current study presents several implications. First, the study's findings extend the link between workplace flexibility and workers' well-being to family well-being by examining how workplace flexibility influences family relationships. As most of the previous studies have focused on the impacts of flexible arrangements on workers' well-being and work-family conflicts (Buehler & O'Brien, 2011; Carlson et al., 2010; Costa et al., 2006; De Menezes & Kelliher, 2011; Higgins et al., 2000; Hill, Jacob et al., 2008; Hill et al., 2004; Jang, 2009; Scandura & Lankau, 1997; Shockley & Allen, 2007), this study further advances the existing knowledge by incorporating the implications of workplace flexibility on family interaction, couples' relationship quality, and parent-child interaction. Although family relationships are essential ingredients for marital well-being and healthy child development, less is known about the association of workplace flexibility on family relationships. The findings of this study, therefore, provide valuable empirical evidence of how workplace flexibility influences multiple dimensions of couples' relationship quality and parent-child interaction. As working parents with young children particularly value and more frequently utilize workplace flexibility to better balance between work and caregiving demands than other groups of workers (Hill, Jacob et al.,



2008), the study findings also contribute to a deeper understanding of workplace flexibility and its impact on the families of those workers. In addition, by using the nationally representative data with advanced statistical analyses, the study has been able to yield empirical evidence that is more generalizable and estimates that are more robust, bringing the research one step closer to identifying the causal effects of workplace flexibility for working parents.

The present study discovered that how distinctive forms of workplace flexibility operate differently across gender and families with different household structures and income. For example, the study found that flextime was beneficial for relationship quality for fathers while working from home was advantageous for parent-child interaction for mothers. Some forms of workplace flexibility, such as working from home, was particularly valuable for low-income mothers while other forms of flexibility, such as part-time employment, was not beneficial for low-income fathers. Such diverse findings suggest the uniqueness of each type of workplace flexibility and its impact for different family outcomes. Research that lumped different forms of workplace flexibility into one unified measure and concept may yield inconsistent and limited evidence on workplace flexibility (Batt & Valcour, 2003; Costa et al., 2006; Jang, 2009).

The findings of both positive and negative consequences of the ability to work from home across genders contribute to the development of theoretical frameworks for workplace flexibility. The improvement of couples' relationship quality and of parent-child interaction from mothers' working at home and both parents' part-time employment, and fathers' flextime reconfirms the boundary-spanning resource view that workplace flexibility allows workers to enhance their performance in the family domain (Voydanoff, 2005). By contrast, the finding that fathers' working at home was associated with an increase in negative interaction with their partner is better explained by the boundary-blurring view that working from home can increase

stress and conflicts through a blurring of the boundary between work and home (Ashforth et al., 2000; Shockley & Allen, 2007). Thus, the current results validate both the boundary-spanning resource and boundary-blurring perspectives, depending on the types of workplace flexibility and family outcomes.

The findings for fathers are particularly informative when compared with mothers' experiences of workplace flexibility because research is scarce that links how flextime and working from home is related to fathers' interaction with their partner and children. The findings of positive impacts of fathers' working from home and flextime for low-income fathers on interaction provide another potential avenue for current policy efforts to encourage fathers' involvement in parenting. However, part-time employment may disadvantage low-income fathers by failing to increase their interaction with their children and by reduced earnings due to limited working hours.

The result of gender differences in the associations between workplace flexibility and parent-child interaction also warrants our attention. The larger increase in social-recreational parent-child interaction for mothers with the ability to work from home than for fathers may suggest that flexible work arrangements have the potential to intensify the gendered division of labor in households. The fact that mothers actively use and benefit from workplace flexibility for parenting purposes may be a way of perpetuating the domestic burden of responsibility for women (Sullivan & Lewis, 2001). Thus, workplace flexibility can be a double-edged sword that allows mothers to engage in both work and caregiving activities but also that traditionalizes gender roles at home. However, the current finding that fathers with the ability to work from home also increase their basic care interaction with their children provides some hope of achieving gender equality in domestic labor with the support from workplace flexibility. Work-

family policies that encourage fathers to use workplace flexibility for family-friendly purposes therefore are needed.

With a particular focus on low-income working parents and their workplace flexibility, the study findings contribute to the work-family literature on how workplace resources influence low-income workers' family interaction. Given the scarcity of research on the impact of workplace flexibility on low-income workers, the current study yields valuable findings for low-income working parents and their family relationship outcomes in relation to mid- and high-income parents (Bond & Galinsky, 2006; Lambert et al., 2012; Henly & Lambert, 2014; Swanberg, James, Werner, & McKechnie, 2008). The study found that working from home for mothers and flextime for fathers are especially beneficial workplace resources for low-income parents. This finding suggests that improving access to workplace flexibility may promote the family well-being of low-income parents, alongside direct income support to those parents.

The findings also contribute to the advocacy of work-family policies for working parents with young children. In light of these findings, increased access to three different forms of work arrangements (flextime, working from home, and part-time employment) potentially have a certain benefit for working parents in managing their caregiving responsibilities or promoting couples' relationships. Given that the current study focuses on the *formal* arrangements of flextime and working from home, the implementation of a formal process of requesting such flexibility would enhance workers' control over their work conditions, which may lead to improved relationship quality for couples and improved parent-child interaction for workers. In addition, when firms and employers consider implementing flexible management practices, the study findings can be used as evidence of the family benefits of flexible arrangements for employees. The current policy effort of a "right to request" flexibility act that allows workers to

request flexible work schedules without the fear of retaliation would give more access to flexible arrangements for employees. For example, Vermont employees have the right to request a flexible work arrangement for any reason and employers are required to consider such a request (National Partnership for Women and Families, 2017). A flexible work arrangement includes changes in start and end times of work (i.e., flextime), work from home, job-sharing, and changes in the number of days or hours worked. In New Hampshire, San Francisco and Seattle, workers have the similar right to request flexible work arrangements (National Partnership for Women and Families, 2017).

However, the introduction of such policies may still be insufficient. Research suggests that workers may not comfortably ask for or adopt flexible work arrangements because there exists “flexibility stigma” toward workers using workplace flexibility that they are less committed to work and they are not “ideal” workers (Williams, Blair-Loy, & Berdahl, 2013). Such negative perceptions toward those working flexibly can discourage workers from using or requesting workplace flexibility and can create concern about potential career penalties even though formal flexibility policies are available in the workplace. The implementation of the right to request policy, therefore, may not be effective for promoting the use of workplace flexibility if invisible stigma and negative career consequences are associated with it. Therefore, we should tackle problematic work cultures that value ideal workers who are constantly working and available and develop a new image of ideal workers who balance work and family responsibilities well with adequate work productivity (Chung, 2018). As managers serve a critical role in facilitating the utilization of workplace flexibility (Kossek et al., 1999), educating managers about their important roles and enabling them to lead changes of workplace cultures

are needed. Developing campaigns to promote the value of workplace flexibility and a new model of ideal workers may be helpful to address the stigma associated with flexibility.

It is also important to note that promoting workplace flexibility would not be a panacea for the conflicts and challenges that American working families experience in managing work and family responsibilities (Bianchi, 2011; Nomaguchi, 2009). Given the increasingly precarious work conditions of U.S. employees, such as unpredictable work schedules and fluctuating work hours, work practices that secure minimum working hours and promote predictable work schedules should also be policy priorities in supporting workers (Lambert, Fugiel, & Henly, 2014; Swanberg et al., 2008). In particular, there may be unintended consequences in using conventional flexible scheduling arrangements for low-wage hourly workers, who are more likely to have fluctuating and limited working hours. Research suggests that workers in hourly jobs may be penalized for requesting more control over their work schedules, such as reduced hours and lost shifts (Lambert et al., 2012). Given that employers are under pressure to reduce labor costs and adjust working hours to meet demand, hourly workers using flexible arrangements such as flextime or reduced hours may face the risk of reduced working hours and earnings. The study finding of the reduced positive association of part-time employment for low-income fathers and single mothers also supports the view that those workers may experience disadvantages as a result of reduced working hours. Thus, it is important to implement comprehensive work scheduling practices that protect workers' right to request flexibility and that secure stable working hours and predictable schedules. On the basis of the study's findings, these comprehensive work practices would be beneficial not only for the workers themselves but also for their families.

The study also informs social workers of the importance of workplace support. The study findings can support social work practitioners with a better understanding of the benefits and potential disadvantages of workplace flexibility. With the potential benefits of workplace flexibility, social workers can introduce and connect their clients with such work resources to help them better balance their work and caregiving demands. The findings on low-income mothers and their additional benefits from working from home help social workers better understand the needs of such clients and advocate more effectively for their access to workplace flexibility. In addition, as most social workers tend to work in low-wage jobs themselves and have children, the study findings may inform them how to better navigate their work and family demands through workplace flexibility.

### **Limitations and Future Research**

The study has several limitations related to the measurement of workplace flexibility. First, as mentioned in the method section (see p.27), the measure of part-time employment is unable to distinguish whether part-time workers have control over their work hours or they involuntarily work part-time employment. Given the prevalence of part-timers who prefer to work full-time employment (Lambert et al., 2012; Stratton, 1996), the findings regarding part-time employment may not directly reflect the implications of workers' *choice* over working hours. In addition, by using a binary measure of workplace flexibility, the current study cannot capture varying degrees of workplace flexibility and their implications for family interaction.

It is also noted that the current measure of workplace flexibility (i.e., flextime and working from home) only assessed formal arrangements of workplace flexibility, whereas previous studies have shown that employees also have access to workplace flexibility through informal networks, such as supervisors and coworkers (Anderson et al., 2002; Estes, 2005).

Given that individual workers may negotiate with their supervisors to have access to flexible work arrangements when needed (Scandura & Lankau, 1997), such informal routes of gaining access to workplace flexibility are not assessed in this dissertation. In addition, the present flextime and working from home measures only represents the availability of such arrangements in the workplace, and this is insufficient for capturing the actual enactment of such options. The current study cannot explore the impacts of the actual adoption of flextime and working from home, although the distinction between availability and use of flexible arrangements is important for theoretical conceptualization and practical evidence (Allen et al., 2013). Finally, our focal measures of workplace flexibility are solely based on self-reported data. Although most of the research in work-family interaction has a similar problem, heavy dependence on self-reported data may be limited to provide accurate information about workplace flexibility.

In terms of the interpretation of the findings, despite the use of advanced methodological approaches to address omitted variable bias, the study is still associational, making it difficult to identify the causal effects of workplace flexibility. Considering that most of the significant associations became nonsignificant in the FE models, the study findings should be interpreted as associations. Moreover, given that the sample was limited to resident fathers who were identified by mothers and that the fathers' response rate was only 85 percent, the findings for resident fathers may not be representative of the larger father population.

In addition, although it may be beyond the scope of this study, the present study does not provide any mechanisms of how workplace flexibility may affect couples' and parent-child interaction. The research suggests that workplace flexibility expects to mediate work-family interactions, such as work-family balance (i.e., ability to successfully integrate work and family life) and work-family conflict (e.g., strain-based and time-based conflicts), which in turn

influence workers' behaviors in the family domain (Carlon et al., 2009; Greenhaus & Beutell, 1985; Hill, Grzywacz et al., 2008; Jang, 2009). As those measures are not available in the ECLS-B data, the present study cannot explore such potential pathways.

Findings and limitations from this dissertation suggest several avenues for additional research. Studies that incorporate measures of workplace flexibility that are more accurate and more diverse, including the degree and use of each flexible option and informal flexible work arrangements (e.g., supervisor or co-worker support and workplace cultures), should be conducted to assess the diverse dimensions of workplace flexibility and their impacts on family well-being. Given that the current study found modest linkages between workplace flexibility and parent-child interaction, research that explores how workplace flexibility influences child health and development outcomes would be beneficial. In addition, research on workplace flexibility suggests potential disadvantages and penalties from using flexibility, including reduced hours and earnings and limited career opportunities (Chung, 2017; Lambert et al., 2012). Thus, studies exploring such negative consequences of workplace flexibility for working parents in addition to workplace flexibility would provide valuable information about the different aspects of workplace flexibility. Given the limitation of the part-time employment measure and the findings on part-time employment, studies that explore how voluntary or involuntary part-time workers similarly or differently experience family interactions are also necessary. Moreover, since the current study is unable to examine the detailed information on low-income occupations that provide workplace flexibility, future research exploring about types of low-income occupations that offer distinctive forms of flexibility, such as flextime and the option of working from home, would benefit.



Considering the prevalence of precarious work schedules, future studies should also incorporate other dimensions of working conditions, such as work-schedule predictability and stability, in addition to workplace flexibility in relation to workers' well-being. It is possible that the use of workplace flexibility may influence fathers' gender identity. Thus, studies examining how the utilization of workplace flexibility shapes masculinity and fatherhood for working fathers can deepen our understanding of workplace flexibility for fathers. In addition, because a worker's experience of workplace flexibility may affect his or her partner's perception of relationship quality and parent-child interaction, future studies investigating such crossover effects should be undertaken.

## APPENDIXES

## Appendix A. Measurements

Table A.1. List of Focal Measures

Concept	Survey Questions	Attributes	Universe
Flextime	Are you eligible for the following benefits through {any of} your current {job/jobs}? Flexible hours or flex-time?	1=yes 2=no	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.
Flexible place	As part of your {main} job, do you do any of your work at home? PROBE: This means you have a formal arrangement with your employer to work at home, not just taking work home from the job.	1=yes 2=no 3=self-employed	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.
Working hours and part-time employment	About how many total hours per week do you usually work for pay?	## hours	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.

Table A.1. List of Focal Measures (continued)

Concept	Survey Questions	Attributes	Universe
Work schedule	Which of the following best describes the hours you usually work {at your main job}?	1=a regular daytime shift (i.e., any time between 6 am and 6 pm) 2=a regular evening shift - any time between 2 pm and midnight 3=a regular night shift - any time between 9 pm and 8 am 4=a rotating shift - one that changes periodically from days to evenings or nights, 5=a split shift - one consisting of two distinct periods each day, or 91=some other schedule (SPECIFY)?	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.
Work status	During the past week, did you work at a job or business for pay?	1=yes 2=no	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.
Marital quality	Would you say that your (relationship/marriage) is...	1=Very happy 2=Fairly happy 3=Not too happy	These items were asked for mothers and for resident fathers in wave 1, 2 and 3.
Positive interaction	<b>About how often do you and your spouse/partner do the following things?</b> <ul style="list-style-type: none"> <li>Talk to each other about your day?</li> <li>Laugh together?</li> </ul>	1=almost every day 2=once or twice a week 3=once or twice a month 4=less than once a month	These items were asked for mothers and for resident fathers in wave 2 only.

Table A.1. List of Focal Measures (continued)

Concept	Survey Questions	Attributes	Universe
	<ul style="list-style-type: none"> <li>• Calmly discuss something?</li> <li>• Work together on a project?</li> <li>• Talk about things that interest you both?</li> </ul>		- reverse coded in the analytic models.
Negative interaction	<p><b>Do you and your spouse/partner often, sometimes, hardly ever, or never have arguments about...</b></p> <ul style="list-style-type: none"> <li>• Chores and responsibilities?</li> <li>• Your child (ren)?</li> <li>• Money?</li> <li>• Not showing love and affection?</li> <li>• Sex?</li> <li>• Religion?</li> <li>• Leisure time?</li> <li>• Drinking?</li> <li>• Other women or men?</li> <li>• In-laws?</li> </ul>	<p>1=often 2=sometimes 3=hardly ever 4=never</p>	<p>These items were asked for mothers and for resident fathers in wave 1, 2 and 3.</p> <p>- reverse coded in the analytic models.</p>
Social-recreational interaction	<p><b>In a typical week, how often do you or any other family member do the following things with your child, Would you say not at all, once or twice, 3 to 6 times, or every day:</b></p> <ul style="list-style-type: none"> <li>• Read books to your child?</li> <li>• Tell stories to your child?</li> <li>• Sing songs with your child?</li> </ul>	<p>1=not at all, 2=once or twice, 3= 3 to 6 times 4=every day</p>	<p>These items were asked for mothers and for resident fathers in wave 1, 2 and 3.</p> <p>- reverse coded in the analytic models.</p>

Table A.1. List of Focal Measures (continued)

Concept	Survey Questions	Attributes	Universe
Social-recreational and basic care interaction in wave 1	<b>In the past month, how often did you do the following things with your child?</b> <ul style="list-style-type: none"> <li>• *Play peek-a-boo with your child?</li> <li>• *Do things like tickle your child, blow on his/her belly, or move his/her arms and legs</li> <li>• *Take your child outside for a walk or to play in the yard, a park, or a playground?</li> <li>• Prepare meals or bottles for your child?</li> <li>• Feed your child or give your child a bottle?</li> <li>• around in a playful way?</li> <li>• Put your child to sleep?</li> <li>• Wash or bathe your child?</li> <li>• Dress your child?</li> </ul>	1=more than once a day 2= about once a day 3= a few times a week 4=a few times a month 5= rarely, 6=not at all	In wave 1, full questions were asked for resident fathers while only three questions with asterisk were asked for mothers (basic care interaction items were not asked for mothers). - reverse coded in the analytic models.
Social-recreational and basic care interaction in wave 2	<b>In the past month, how often did you do the following things with your child?</b> <ul style="list-style-type: none"> <li>• *Play chasing games with your child?</li> <li>• *Play with games or toys indoors with your child?</li> <li>• *Take your child outside for a walk or to play in the yard, a park, or a playground?</li> <li>• Prepare meals for your child?</li> <li>• Change your child's diapers or help your child use the toilet?</li> </ul>	1=more than once a day 2=about once a day 3=a few times a week 4=a few times a month 5=rarely 6=not at all	In wave 2, full questions were asked for resident fathers while only three questions with asterisk were asked for mothers. (basic care interaction items were not asked for mothers) - reverse coded in the

Table A.1. List of Focal Measures (continued)

Concept	Survey Questions	Attributes	Universe
	<ul style="list-style-type: none"> <li>• Help your child to bed?</li> <li>• Give your child a bath?</li> <li>• Help your child get dressed?</li> <li>• Assist your child with eating?</li> </ul>		analytic models.
Social-recreational and basic care interaction in wave 3	<p><b>In the past month, how often did you do the following things with your {child/children}?</b></p> <ul style="list-style-type: none"> <li>• *Play together with toys for building things like blocks, Tinker toys, Lincoln Logs, or LEGOs?</li> <li>• *Take child outside for a walk or to play in the yard, a park, or a playground?</li> <li>• Prepare meals for your child?</li> <li>• Help your child to bed?</li> <li>• Help your child bathe?</li> <li>• Help your child dress themselves?</li> <li>• Help your child brush teeth?</li> </ul>	<p>1=more than once a day  2= about once a day  3= a few times a week  4=a few times a month  5= rarely  6=not at all</p>	In wave 3, all questions were asked for mothers and for resident fathers - reverse coded in the analytic models.

Table A.2. Availability of Key Measures

Concept	Key measures	Wave	Reported from
<i>Independent variables</i>			
	Flextime	1,2,3	Mothers reported both their and fathers' flexibility
Workplace flexibility	Working at home	1,2,3	Mothers reported both their and fathers' flexibility
	Part-time employment	1,2,3	Mothers reported both their and fathers' flexibility
Income	Household income	1,2,3	Mothers reported both their and fathers' flexibility
<i>Dependent variables</i>			
Couples' relationship quality	Relationship happiness	1,2,3	Mothers and fathers reported
	Negative interaction	1,2,3	Mothers and fathers reported
	Positive interaction	2	Mothers and fathers reported
Parent-child interaction	Social-recreational interaction	1,2,3	Mothers and fathers reported
	Basic care interaction	3	Mothers reported
	Basic care interaction	1,2,3	Fathers reported

*Note.* Wave1=9 months, Wave2=24 months, and Wave3= preschool wave (48 months)



## Appendix B. Multivariate Models with Individual Flexibility Indicator

Table B.1. Individual Workplace Flexibility and Relationship Happiness

<b>Mothers</b>	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
Working hours	0.988*** (0.981 - 0.995)	0.990** (0.983 - 0.996)	0.983* (0.966 - 0.999)	0.988*** (0.981 - 0.995)	0.990** (0.983 - 0.996)	0.983* (0.967 - 1.000)			
Flextime	1.062 (0.895 - 1.260)	1.013 (0.847 - 1.213)	0.925 (0.648 - 1.322)						
Working from home				1.270* (1.030 - 1.565)	1.066 (0.853 - 1.331)	1.022 (0.648 - 1.612)			
Part-time employment							1.331** (1.101 - 1.609)	1.295** (1.068 - 1.570)	1.266 (0.819 - 1.955)
N	9,450	9,450	2,150	9,450	9,450	2,150	9,450	9,450	2,150
<b>Fathers</b>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
Working hours	1.000 (0.993 - 1.007)	0.999 (0.992 - 1.006)	0.993 (0.975 - 1.011)	1.000 (0.993 - 1.006)	0.998 (0.991 - 1.005)	0.993 (0.975 - 1.010)			
Flextime	1.347*** (1.151 - 1.576)	1.377*** (1.167 - 1.625)	1.405^ (0.991 - 1.991)						
Working from home				0.920 (0.757 - 1.118)	0.907 (0.741 - 1.111)	1.017 (0.655 - 1.578)			
Part-time employment							0.905 (0.649 - 1.263)	0.869 (0.596 - 1.267)	0.806 (0.358 - 1.816)
N	7,400	7,400	1,700	7,400	7,400	1,700	7,400	7,400	1,700

Notes: The model 1 is a pooled logistic regression model. Model 2 is a Lagged Dependent Variable model that additionally controls for outcome measure from the previous wave. Model 3 is a Fixed-Effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Confidence interval was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. OR, odds ratio.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table B.2. Individual Workplace Flexibility and Couples' Negative Interaction

Mothers	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Working hours	0.004** (0.001)	0.002* (0.001)	0.001 (0.002)	0.004** (0.001)	0.002^ (0.001)	0.000 (0.002)			
Flexitime	-0.029 (0.035)	0.007 (0.030)	0.021 (0.039)						
Working from home				-0.098* (0.042)	-0.071* (0.035)	-0.006 (0.047)			
Part-time employment							-0.074^ (0.040)	-0.031 (0.034)	0.027 (0.054)
R2	0.040	0.241	0.015	0.041	0.242	0.015	0.039	0.241	0.015
N	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500
Fathers	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Working hours	0.006*** (0.002)	0.004*** (0.001)	0.004** (0.002)	0.006*** (0.002)	0.004*** (0.001)	0.004* (0.002)			
Flexitime	-0.052 (0.033)	-0.041 (0.027)	0.023 (0.038)						
Working from home				0.038 (0.038)	0.058^ (0.031)	0.039 (0.042)			
Part-time employment							-0.122 (0.075)	-0.077 (0.063)	-0.054 (0.082)
R2	0.044	0.255	0.034	0.044	0.255	0.035	0.040	0.252	0.032
N	7,400	7,400	7,400	7,450	7,450	7,450	7,450	7,450	7,450

Notes: The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. Coef. coefficient.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table B.3. Individual Workplace Flexibility and Couples' Positive Interaction

Mothers	Model 1	Model 2	Model 3
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Working hours	-0.006*** (0.002)	-0.005** (0.002)	
Flextime	0.085* (0.040)		
Working from home		0.108* (0.047)	
Part-time employment			0.086^ (0.046)
R2	0.063	0.063	0.060
N	4,750	4,750	4,750
Fathers			
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Working hours	-0.002 (0.002)	-0.002 (0.002)	
Flextime	0.123** (0.042)		
Working from home		0.021 (0.053)	
Part-time employment			0.085 (0.102)
R2	0.072	0.068	0.068
N	3,700	3,700	3,700
Notes: The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. Coef. coefficient.			
*** p<0.001, ** p<0.01, * p<0.05, ^ p<0.10			



Table B.5. Individual Workplace Flexibility and Basic Care Interaction

Mothers	Model 1	Model 2	Model 3						
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>						
Working hours	-0.006*** (0.002)	-0.006*** (0.002)							
Flextime	0.024 (0.038)								
Working from home		0.081^ (0.044)							
Part-time employment			0.151*** (0.042)						
R2	0.059	0.059	0.059						
N	7,700	7,700	7,700						
Fathers	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Working hours	-0.011*** (0.002)	-0.007*** (0.001)	-0.005* (0.002)	-0.011*** (0.002)	-0.007*** (0.001)	-0.005* (0.002)			
Flextime	0.007 (0.033)	0.033 (0.027)	0.014 (0.039)						
Working from home				-0.003 (0.039)	0.006 (0.030)	0.087* (0.044)			
Part-time employment							0.192** (0.072)	0.115^ (0.060)	0.126 (0.083)
R2	0.094	0.282	0.044	0.093	0.283	0.046	0.082	0.278	0.043
N	7,450	7,450	7,450	7,500	7,500	7,500	7,500	7,500	7,500

Notes: The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef. coefficient.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

## Appendix C. The Association between Workplace Flexibility and Parent-child Interaction for Mothers from Two-parent Households.

Table C.1. The Association between Workplace Flexibility and Parent-child Interaction for Mothers from Two-parent Households				
	Social-recreational Interaction			Basic Care Interaction
	Model 1	Model 2	Model 3	Model 1
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Flexitime	-0.010 (0.019)	-0.015 (0.016)	-0.015 (0.022)	-0.001 (0.043)
Working from home	0.075** (0.023)	0.045* (0.019)	-0.004 (0.029)	0.087^ (0.046)
Part-time employment	0.094*** (0.021)	0.065*** (0.017)	0.040 (0.027)	0.194*** (0.046)
R2	0.109	0.301	0.012	0.064
N	6,600	6,600	6,600	6,050

The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef. coefficient.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

## Appendix D. Interaction Results of Household Type and Income

Table D.1. Workplace Flexibility and Couples' Relationship Quality by Household Type among Fathers

	Relationship happiness			Negative interaction			Positive interaction		
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Dual-earner	0.719** (0.082)	0.775* (0.085)	0.813* (0.079)	0.133** (0.041)	0.112** (0.038)	0.085** (0.033)	0.038 (0.069)	0.076 (0.060)	0.099^ (0.058)
Flexitime	1.153 (0.155)			0.016 (0.041)			0.046 (0.066)		
Flexitime x dual-earner	1.361^ (0.237)			-0.101^ (0.053)			0.142^ (0.083)		
Working from home		0.768^ (0.120)			0.116* (0.047)			-0.024 (0.086)	
Working from home x dual-earner		1.340 (0.262)			-0.099^ (0.060)			0.081 (0.101)	
Part-time employment			0.871 (0.257)			0.029 (0.116)			0.183 (0.187)
Part-time x dual-earner			0.996 (0.395)			-0.177 (0.136)			-0.156 (0.219)
N	7,400	7,400	7,400	7,400	7,400	7,400	3,700	3,700	3,700

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient. OR= odds ratio

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table D.2. Workplace Flexibility and Couples' Relationship Quality by Household Income among Mothers

	Relationship happiness			Negative interaction			Positive interaction		
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Low-income	0.860 (0.124)	0.777^ (0.101)	0.737* (0.102)	0.046 (0.064)	0.061 (0.054)	0.106^ (0.057)	-0.009 (0.072)	0.010 (0.067)	-0.098 (0.082)
Flexitime	1.119 (0.122)			-0.051 (0.038)			0.091* (0.045)		
Flexitime x low-income	0.753 (0.152)			0.072 (0.079)			-0.026 (0.103)		
Working from home		1.128 (0.143)			-0.125** (0.041)			0.142** (0.049)	
Working from home x low-income		0.789 (0.220)			0.168 (0.125)			-0.263 (0.183)	
Part-time employment			1.262^ (0.150)			-0.061 (0.083)			0.172^ (0.099)
Part-time x low-income			1.062 (0.212)			-0.055 (0.041)			0.037 (0.049)
N	9,500	9,500	9,500	9,500	9,500	9,500	4,750	4,750	4,750

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient. OR= odds ratio.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10



Table D.3. Workplace Flexibility and Couples' Relationship Quality by Household Income among Fathers

	Relationship happiness			Negative interaction			Positive interaction		
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Low-income	0.987 (0.122)	1.010 (0.117)	0.990 (0.109)	-0.017 (0.045)	-0.003 (0.040)	0.001 (0.038)	-0.023 (0.071)	-0.017 (0.065)	-0.024 (0.061)
Flexitime	1.395** *			-0.072* (0.029)			0.107* (0.048)		
Flexitime x low-income	0.948 (0.176)			0.108^ (0.064)			0.024 (0.095)		
Working from home		0.976 (0.109)			0.017 (0.033)			0.025 (0.058)	
Working from home x low-income		0.669 (0.169)			0.238** (0.085)			-0.074 (0.137)	
Part-time employment			1.000 (0.327)			-0.160* (0.073)			0.128 (0.134)
Part-time x low-income			0.784 (0.335)			0.133 (0.124)			-0.015 (0.199)
N	7,400	7,400	7,400	7,400	7,450	7,450	3,700	3,700	3,700

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient. OR= odds ratio

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table D.4. Workplace Flexibility and Parent-child Interaction by Household Type among Mothers

	Social-recreational interaction			Basic care interaction		
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Single parent	-0.002 (0.026)	0.020 (0.021)	0.024 (0.024)	-0.076 (0.074)	-0.061 (0.060)	-0.011 (0.061)
Flexitime	-0.012 (0.016)			0.015 (0.043)		
Flexitime x single parent	0.048 (0.036)			0.030 (0.094)		
Working from home		0.049* (0.019)			0.085^ (0.046)	
Working from home x single parent		0.020 (0.054)			-0.043 (0.134)	
Part-time employment			0.063*** (0.017)			0.199*** (0.045)
Part-time x single parent			-0.019 (0.040)			-0.214^ (0.110)
N	15,400	15,400	15,400	7,700	7,700	7,700

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format.

Coef, coefficient

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table D.5. Workplace Flexibility and Parent-child Interaction by Household Type among Fathers

	Social-recreational interaction			Basic care interaction		
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Dual-earner	0.065* (0.032)	0.073* (0.029)	0.078** (0.026)	0.317*** (0.048)	0.323*** (0.044)	0.343*** (0.039)
Flexitime	0.004 (0.033)			-0.006 (0.052)		
Flexitime x dual-earner	0.008 (0.042)			0.024 (0.066)		
Working from home		0.028 (0.038)			0.017 (0.056)	
Working from home x dual-earner		-0.003 (0.049)			-0.035 (0.070)	
Part-time employment			0.041 (0.106)			0.167 (0.129)
Part-time x dual-earner			0.145 (0.122)			0.039 (0.151)
N	7,600	7,600	7,600	7,500	7,500	7,500

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format.

Coef, coefficient

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table D.6. Workplace Flexibility and Parent-child Interaction by Household Income among Mothers

	Social-recreational interaction			Basic care interaction		
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Low-income	-0.040 <sup>^</sup> (0.023)	-0.033 <sup>^</sup> (0.020)	-0.038 <sup>^</sup> (0.021)	-0.086 (0.063)	-0.054 (0.052)	-0.032 (0.055)
Flexitime	-0.017 (0.018)			-0.037 (0.046)		
Flexitime x low-income	0.040 (0.029)			0.136 <sup>^</sup> (0.079)		
Working from home		0.025 (0.020)			0.015 (0.048)	
Working from home x low-income		0.128** (0.042)			0.230* (0.105)	
Part-time employment			0.038 <sup>^</sup> (0.019)			0.139** (0.049)
Part-time x low-income			0.044 (0.030)			0.026 (0.081)
N	15,400	15,400	15,400	7,700	7,700	7,700

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format.

Coef, coefficient

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table D.7. Workplace Flexibility and Parent-child Interaction by Household Income among Fathers

	Social-recreational interaction			Basic care interaction		
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Low-income	0.019 (0.029)	0.025 (0.026)	0.034 (0.025)	-0.051 (0.046)	-0.008 (0.041)	0.009 (0.039)
Flexitime	0.008 (0.020)			-0.003 (0.030)		
Flexitime x low-income	-0.013 (0.040)			0.127* (0.064)		
Working from home		0.040 <sup>^</sup> (0.024)			0.014 (0.032)	
Working from home x low-income		-0.079 (0.061)			-0.044 (0.086)	
Part-time employment			0.195*** (0.054)			0.144 <sup>^</sup> (0.083)
Part-time x low-income			-0.193* (0.081)			-0.077 (0.119)
N	7,600	7,600	7,600	7,500	7,500	7,500

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format.

Coef, coefficient

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

## Appendix E. Sensitive Test for Part-time Employment and Household Income

Table E.1. Part-time Employment (<30 hours per week) and Couples' Relationship Quality for Mothers

	Relationship happiness			Negative interaction			Positive interaction
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 1</i>
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Flextime	1.002 (0.092)	0.923 (0.164)	-0.019 (0.035)	0.014 (0.029)	0.021 (0.040)	0.079^ (0.040)	1.002 (0.092)
Working from home	1.240* (0.133)	1.047 (0.119)	0.975 (0.223)	-0.091* (0.042)	-0.069* (0.035)	-0.007 (0.047)	0.097* (0.047)
Part-time employment	1.412*** (0.147)	1.397** (0.147)	1.933** (0.460)	-0.097* (0.043)	-0.062^ (0.038)	-0.030 (0.061)	0.142** (0.045)
N	9,450	9,450	2,150	9,450	9,450	9,450	4,750

The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. Coef. coefficient. OR= odds ratio.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table E.2. Part-time Employment (<30 hours per week) and Couples' Relationship Quality for Fathers

	Relationship happiness			Negative interaction			Positive interaction
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 1</i>
	<i>OR</i>	<i>OR</i>	<i>OR</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Flextime	1.369*** (0.110)	1.405*** (0.120)	1.424* (0.253)	-0.065^ (0.033)	-0.054* (0.027)	0.018 (0.037)	0.125** (0.042)
Working from home	0.873 (0.088)	0.855 (0.090)	0.971 (0.217)	0.056 (0.039)	0.071* (0.031)	0.046 (0.043)	0.001 (0.053)
Part-time employment	1.105 (0.274)	1.054 (0.312)	0.784 (0.440)	-0.168 (0.104)	-0.107 (0.083)	-0.118 (0.097)	-0.000 (0.126)
N	7,400	7,400	1,700	7,400	7,400	7,450	3,700

The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. The sample is limited to two-parent families, excluding single mothers. N is the number of cases in person-year format. Coef. coefficient. OR= odds ratio.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table E.3. Part-time Employment (<30 hours per week) and Parent-child Interaction for Mothers

	Social-recreational interaction			Basic care interaction
	<i>Model 1</i> <i>Coef</i>	<i>Model 2</i> <i>Coef</i>	<i>Model 3</i> <i>Coef</i>	<i>Model 1</i> <i>Coef</i>
Flexitime	0.001 (0.017)	-0.005 (0.014)	-0.008 (0.019)	0.016 (0.038)
Working from home	0.068** (0.022)	0.047** (0.018)	0.008 (0.026)	0.072^ (0.044)
Part-time employment	0.072*** (0.021)	0.050** (0.017)	0.018 (0.024)	0.156*** (0.045)
N	15,450	15,450	15,450	7,700

The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef. coefficient  
 \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table E.4. Part-time Employment (<30 hours per week) and Parent-child Interaction for Fathers

	Social-recreational interaction			Basic care interaction		
	<i>Model 1</i> <i>Coef</i>	<i>Model 2</i> <i>Coef</i>	<i>Model 3</i> <i>Coef</i>	<i>Model 1</i> <i>Coef</i>	<i>Model 2</i> <i>Coef</i>	<i>Model 3</i> <i>Coef</i>
Flexitime	0.015 (0.022)	0.006 (0.018)	-0.024 (0.025)	0.022 (0.033)	0.043 (0.027)	0.013 (0.039)
Working from home	0.010 (0.028)	0.012 (0.022)	0.048 (0.031)	-0.032 (0.039)	-0.018 (0.031)	0.089* (0.044)
Part-time employment	0.223*** (0.064)	0.151** (0.051)	0.140* (0.061)	0.283** (0.094)	0.192** (0.073)	0.257* (0.104)
N	7,600	7,600	7,600	7,500	7,500	7,500

The model 1 is a pooled regression (and logistic regression) model. Model 2 is a lagged dependent variable model that additionally controls for outcome measure from the previous wave. Model 3 is a fixed-effects model. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef. coefficient  
 \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, ^ p<0.10

Table E.5. Interaction Effect of Workplace Flexibility with Poor Household (< 100 percent poverty level) for Mothers

	Non-routine interactions	Routine interactions
	<i>Coef</i>	<i>Coef</i>
Poor household	-0.017 (0.023)	-0.107 (0.071)
Working from home	0.045* (0.018)	0.044 (0.044)
Working from home x poor household	0.120 (0.084)	0.317 (0.190)
N	15,450	7,700

Notes: The cross-sectional model was estimated for routine interactions and the LDV model was estimated for non-routine interactions. All models were controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient

\*\* p<0.01, \* p<0.05

Table E.6. Interaction Effect of Workplace Flexibility with Poor Household (< 100 percent poverty level) for Fathers

	Couple's negative interactions	Non-routine interactions	Routine interactions
	<i>Coef</i>	<i>Coef</i>	<i>Coef</i>
Low income	-0.080 (0.069)	-0.005 (0.039)	-0.044 (0.075)
Working from home	0.038 (0.032)		
Working from home x low income	0.367* (0.145)		
Part-time employment		0.125* (0.049)	
Part-time x low income		-0.099 (0.099)	
Flexitime			0.046 (0.028)
Flexitime x low income			-0.146 (0.103)
N	7,450	7,600	7,450

Notes: All models were LDV models and controlled for demographic and work characteristics. Weight provided by ECLS-B was adjusted for all models. Standard error was reported in the parenthesis. N is the number of cases in person-year format. Coef, coefficient

\*\*\* p<0.001, \*\* p<0.01

## Appendix F. The Distribution of Occupation Types across Working from Home among Low-income Households

Table F.1. The Distribution of Occupation Types by Flextime for Low-income Households at Wave 2

Occupation Types	Low-income Mothers		Low-income Fathers	
	No access to flextime	Access to flextime	No access to flextime	Access to flextime
Management occupations	1.3%	2.4%	3.0%	5.2%
Business and financial operations	0.4%	0.7%	0.4%	1.9%
Computer and mathematical occupations	0.1%	0.2%	1.1%	2.4%
Architecture and engineering	0.0%	0.0%	0.4%	1.1%
Life, physical, and social science occupations	0.0%	0.2%	0.0%	0.1%
Community and social service occupations	1.0%	1.3%	0.3%	1.3%
Legal occupations	0.3%	0.1%	0.0%	0.0%
Education, training, and library occupations	5.0%	3.7%	1.3%	1.7%
Arts, design, entertainment, sports, and media occupations	0.6%	0.8%	0.9%	0.6%
Health care practitioner and technical occupations	2.7%	3.1%	1.1%	1.0%
Health care support occupations	7.8%	9.2%	1.0%	1.3%
Protective service occupations	1.2%	1.7%	2.4%	1.7%
Food preparation and serving related occupations	13.3%	12.5%	7.4%	4.4%
Building and grounds cleaning and maintenance	7.2%	5.5%	7.2%	5.2%
Personal care services occupations	9.2%	8.6%	0.8%	1.8%
Sales and related occupations	13.0%	16.1%	5.6%	5.6%
Office and administrative support occupations	21.8%	25.1%	7.7%	8.6%
Farming, fishing, and forestry occupations	0.9%	0.2%	2.3%	2.2%
Construction and extraction occupations	0.0%	0.1%	18.0%	15.8%
Installation, maintenance, and repair occupations	0.5%	0.2%	8.1%	10.3%
Production occupations	12.4%	6.7%*	16.8%	15.2%
Transportation and material moving occupations	1.5%	1.5%	14.2%	11.9%
Military occupations	0.0%	0.0%	0.0%	0.5%
N (Observations)	1,050	650	800	300

Note. All percentages are weighted. T-test was conducted to test differences in the distribution between those with the access to flextime and those without the access.

\* p<.05.

Table F.2. The Distribution of Occupation Types by Working from Home for Low-income Households at Wave 2

Occupation Types	Low-income Mothers		Low-income Fathers	
	Not able to work from home	Able to work from home	Not able to work from home	Able to work from home
Management occupations	1.4%	3.3%	3.3%	5.6%
Business and financial operations	0.5%	0.3%	0.8%	1.5%
Computer and mathematical occupations	0.0%	1.1%*	0.7%	8.4%*
Architecture and engineering	0.0%	0.0%	0.5%	1.4%
Life, physical, and social science occupations	0.1%	0.0%	0.0%	0.4%*
Community and social service occupations	1.1%	2.0%	0.3%	3.1%*
Legal occupations	0.0%	0.5%*	0.0%	0.0%
Education, training, and library occupations	3.4%	19.6%*	1.3%	3.1%
Arts, design, entertainment, sports, and media occupations	0.7%	0.4%	0.5%	4.0%*
Health care practitioner and technical occupations	3.0%	2.3%	0.8%	0.6%
Health care support occupations	9.2%	2.5%*	1.2%	0.4%
Protective service occupations	1.5%	1.7%	2.5%	0.3%*
Food preparation and serving related occupations	14.2%	5.6%*	7.4%	1.1%*
Building and grounds cleaning and maintenance	6.4%	2.1%	7.0%	1.4%*
Personal care services occupations	7.0%	13.2%*	1.1%	0.0%
Sales and related occupations	15.0%	6.1%*	5.9%	2.6%
Office and administrative support occupations	23.5%	22.8%	7.6%	12.3%
Farming, fishing, and forestry occupations	0.7%	0.0%	2.1%	2.3%
Construction and extraction occupations	0.1%	0.0%	16.0%	19.1%
Installation, maintenance, and repair occupations	0.3%	2.0%	8.2%	16.9%
Production occupations	10.6%	11.4%	18.2%	6.7%*
Transportation and material moving occupations	1.4%	3.4%	14.6%	7.1%
Military occupations	0.0%	0.0%	0.0%	1.5%*
N (Observations)	1,550	150	950	100

Note. All percentages are weighted. T-test was conducted to test differences in the distribution between those with the ability to work from home and those without the ability.

\* p<.05.



Table F.3. The Distribution of Occupation Types by Part-time Work for Low-income Households at Wave 2

Occupation Types	Low-income Mothers		Low-income Fathers	
	Full-time	Part-time	Full-time	Part-time
Management occupations	1.9%	1.3%	3.9%	0.0%
Business and financial operations	0.7%	0.1%*	0.9%	0.0%
Computer and mathematical occupations	0.1%	0.1%	1.4%	1.7%
Architecture and engineering	0.0%	0.0%	0.5%	1.2%
Life, physical, and social science occupations	0.0%	0.2%	0.0%	0.3%*
Community and social service occupations	0.9%	1.5%	0.6%	0.2%
Legal occupations	0.1%	0.4%	0.0%	0.0%
Education, training, and library occupations	4.5%	4.6%	1.0%	5.9%*
Arts, design, entertainment, sports, and media occupations	0.2%	1.5%*	0.6%	2.7%
Health care practitioner and technical occupations	2.9%	2.7%	0.8%	3.9%
Health care support occupations	8.5%	8.0%	1.2%	0.2%
Protective service occupations	1.7%	1.0%	2.2%	1.9%
Food preparation and serving related occupations	10.5%	17.1%*	5.8%	14.5%*
Building and grounds cleaning and maintenance	4.2%	10.2%*	6.1%	11.0%
Personal care services occupations	7.7%	11.1%*	0.9%	3.1%
Sales and related occupations	12.3%	17.1%*	5.7%	6.4%
Office and administrative support occupations	26.8%	17.0%*	8.0%	5.9%
Farming, fishing, and forestry occupations	1.0%	0.0%	2.3%	1.9%
Construction and extraction occupations	0.1%	0.0%	18.0%	9.2%
Installation, maintenance, and repair occupations	0.6%	0.0%*	9.0%	6.9%
Production occupations	14.3%	3.6%*	17.6%	8.2%
Transportation and material moving occupations	0.9%	2.6%*	13.2%	15.0%
Military occupations	0.0%	0.0%	0.2%	0.0%
N (Observations)	1,100	600	1,000	100

Note. All percentages are weighted. T-test was conducted to test differences in the distribution between those part-time and full-time workers

\* p<.05.

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