

Mothers' Part-time Employment: Associations with Mother and Family Well-being

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Abstract:

The associations between mothers' part-time employment and mother well-being, parenting, and family functioning were examined using seven waves of the NICHD Study of Early Child Care and Youth Development data (N = 1,364), infancy through middle childhood. Concurrent comparisons were made between families in which mothers were employed part time and both those in which mothers were not employed and those in which mothers were employed full time. Using multivariate analysis of covariance with extensive controls, results indicated that mothers employed part time had fewer depressive symptoms during the infancy and preschool years and better self-reported health at most time points than did nonemployed mothers. Across the time span studied, mothers working part time tended to report less conflict between work and family than those working full time. During their children's preschool years, mothers employed part time exhibited more sensitive parenting than did other mothers, and at school age were more involved in school and provided more learning opportunities than mothers employed full time. Mothers employed part time reported doing a higher proportion of child care and housework than mothers employed full time. Part-time employment appears to have some benefits for mothers and families throughout the child rearing years.

Keywords: NICHD SECCYD | maternal employment | part-time | work hours | work-family | wellbeing | parenting | child care | child development

Article:

Maternal employment has been studied by scholars from a variety of disciplines for several decades (Bianchi & Milkie, 2010), yet relatively little research has focused on part-time employment (author). Early research into maternal employment compared families in which

mothers were employed with those in which mothers stayed home, often focusing on parenting and child outcomes. Recent research has examined work hours measured continuously. Neither approach included part-time work as a distinct category. In the current study, we examined a wide range of aspects of family functioning in families in which mothers were employed part time compared with both those in which mothers were not employed and employed full time.

A focus on mothers' part-time employment is useful for several reasons. Part-time employment is a normative experience for U.S. mothers. Approximately 25% of all women currently work part-time schedules (U.S. Department of Labor, 2009), and a majority of mothers work part time at some point during their adult years (Budig & England, 2001). Both employers and employees find the classification of part-time work meaningful and distinct from full-time work (Duffy & Pupo, 1992; Pew Research Center, 2007); these meanings and distinctions shape both employment practices and family decisions regarding paid work (Sweet & Moen, 2006).

The literature on maternal employment also has given limited attention to mother and family well-being in contrast with a primary focus on child outcomes (author citation). Although effects on children are important, we propose that considerations of maternal well-being, the work-family interface, parenting, and couple functioning also are essential. Using data from the NICHD Study of Early Child Care and Youth Development (SECCYD), we examined mother well-being in terms of depressive symptoms and overall health; mothers' perceptions of conflict between work and family; parenting in terms of sensitivity, provision of opportunities for child learning, and involvement in children's schooling; and couple functioning in terms of couple intimacy and the proportion of housework and child care women assume.

The current study also addresses the role of maternal employment beyond children's very early years, which has been the focus of much research to date. For example, Brooks-Gunn, Han, and Waldfogel (2010) used SECCYD data to examine mothers' employment hours during infancy and child functioning through first grade. Relatively little is known, however, about maternal employment during middle childhood. We address this gap by examining the concurrent association between mothers' part-time employment and these well-being indicators at seven time points across four developmental periods from infancy through middle childhood.

Theoretical and Empirical Foundations

Bronfenbrenner's ecological theory (Bronfenbrenner & Morris, 1998) framed this study of maternal functioning and well-being, and guided the selection of family factors to be examined. Mothers' work hours connect the family microsystem with the workplace; we view part-time work as a distinct niche within this mesosystem. The specific aspects of mother and family well-being in this study were selected because of their importance for considering how functioning across these systems is connected to mothers' personal resources (e.g., psychological well-being), mothers' perceptions of the work-family interface (e.g., work-family conflict), and proximal processes of parenting (e.g., sensitivity). An ecological perspective also encourages the inclusion

of couple outcomes in partnered families (e.g., division of housework), by highlighting the connections among subsystems (Perry-Jenkins & MacDermid, in press). Ecological theory proposes that characteristics of employment, such as work hours, will be related to both the functioning of individuals and the quality of relationships within the family, but does not specify the direction of effects.

In the current study, part-time employment is compared with both nonemployed and full-time employment. A central issue driving our research is whether part-time employment is a distinct work status, and if not, whether it resembles full-time work or nonemployment.

Maternal Well-Being

Surprisingly little research has been conducted on part-time employment and mothers' well-being. We found only two studies that compared part-time employment and nonemployment and only three studies that compared part-time and full-time employment.

Part-time employment versus nonemployment

Focusing on mothers' employment during infancy and using extensive demographic and family controls, Brooks-Gunn et al. (2010) found no significant group differences for mothers' depressive symptoms at first grade. Coley and colleagues (2007) examined 2,000 low-income, urban mothers at two points in time separated by about 16 months and utilized extensive demographic controls. They found that becoming employed was associated with decreases in mothers' depressive symptoms. By utilizing a more economically diverse sample than that used by Coley et al. and by examining maternal work hours beyond infancy, we evaluate the replicability of these findings and test the hypothesis that mothers employed part time have fewer depressive symptoms than nonemployed mothers. We also test this hypothesis for self-reported health.

Part-time versus full-time employment

We found only three studies that compared part-time and full-time employed mothers' well-being. Barnett and Gareis (2000; Gareis & Barnett, 2002) sampled about 100 female physicians and the analyses utilized few controls. Brooks-Gunn et al. (2010) utilized the NICHD SECCYD dataset and had extensive controls. In spite of these methodological differences, significant group differences were not found in either sample. Thus, we did not hypothesize part-time/full-time differences. Theoretically, these expectations regarding mothers' work hours and well-being are consistent with an ecological approach which suggests that involvement in the work context affords resources and opportunities to enrich personal development and well-being; the number of work hours may be less relevant than participation in the context itself.

Work-Family Interface

Three important aspects of the work-family interface include work-family conflict, family work conflict, and work-family facilitation (Bianchi & Milkie, 2010). Work-family conflict and family work conflict are each a type of interrole conflict but they differ in the direction of interference (Byron, 2005). Work-family conflict occurs when work responsibilities and demands create difficulty in performing family roles. Family work conflict occurs when family responsibilities and demands create difficulty in performing work roles. Work-family facilitation occurs when individuals perceive that their participation in the workforce supports family life (e.g., being a better parent). These factors were examined only for employed mothers.

Research on the work-family interface has indicated that mothers employed part time report less work-family conflict than do mothers employed full time (Higgins, Duxbury, & Johnson, 2000; Hill, Martinson, & Ferris, 2004). We evaluate the replicability of the findings with greater attention to developmental period than has been devoted in existing research and with a larger, more diverse sample.

Very few studies have examined family work conflict and part-time employment. In her meta-analysis, Byron (2005) found a small, inverse association between work hours (measured continuously) and family work conflict for families with children. We were unable to find research on part-time employment and work-family facilitation. Based on this very limited literature and the balancing proposition inherent in ecological theory that highlights the important role of aligning demands and resources across multiple settings (Melson, 1980), we hypothesized that mothers employed part time report less work-family and family work conflict and greater work-family facilitation than those employed full time.

Parenting

Part-time employment versus nonemployment

Brooks-Gunn et al. (2010) found that U.S. White, non-Hispanic mothers employed part time during infancy had higher scores on observed sensitivity through first grade than mothers who were not employed during infancy. They did not focus on mothers' work hours as children age. In a study of New Zealand families of school-age children, Horwood and Fergusson (1999) found that mothers employed part time were rated as more responsive than those not employed. With regard to learning experiences, using data from the National Educational Longitudinal Study (NELS) of eighth graders, Muller (1995) found that mothers employed part time were more involved in school-related activities than nonemployed mothers. All three studies used extensive demographic controls and two utilized a U.S. sample of families. We were unable to find any research on mothers' provision of young children's learning opportunities or school involvement during middle childhood. Based on these scant findings and the ecological proposition that experiences in multiple microsystems can provide needed resources for enhancing proximal processes such as sensitive parenting, we hypothesized that mothers

employed part-time have higher sensitivity, provide more opportunities for learning, and have greater school involvement than those not employed.

Part-time versus full-time employment

Brooks-Gunn et al. (2010) found that mothers employed part time during infancy had higher observed sensitivity scores through first grade than did mothers employed full time. Muller (1995) found that mothers of eighth graders employed part time scored higher than those employed full time on school-related communication with their eighth grade children, checking homework, after school supervision, and school involvement. We extended these findings by testing the hypothesis that mothers employed part time are consistently more positive in their parenting than are mothers employed full time from toddlerhood through middle childhood.

Couple Functioning

Important aspects of couple functioning in partnered families that could be expected to be associated with maternal work hours include intimacy (as a part of relational quality) and the sharing of family work (Perry-Jenkins & MacDermid, in press).

Part-time employment versus nonemployment

We were unable to find research within the last 20 years that compared part-time and not employed mothers on couple intimacy. Based on Sayer and Bianchi's (2000) findings that couples view their marriage more positively when husbands and wives have symmetrical roles and share income production; however, we hypothesized that couple intimacy is higher for part-time employed mothers than for nonemployed mothers. With regards to the division of family work, we drew on Stier and Lewin-Epstein's (2000) research which has suggested that the proportion of housework and child care done does not differ for mothers employed part time versus those not employed.

Part-time versus full-time employment

Research on couple intimacy (or relational quality more generally) related to part-time employment is sparse. We relied, therefore, on recent research that documented greater marital stability for couples in which women are employed full time when compared with couples in which women work fewer hours (Kalil, Ziol-Guest, & Epstein, 2010). We hypothesized, by extension, higher couple intimacy for full-time than part-time employed mothers.

With regard to division of labor between adult partners in families, we found only three studies that compared part-time and full-time employment (Barnett & Gareis, 2002; Hill et al., 2004; Stier & Lewin-Epstein, 2000). In each case, mothers employed part time engaged in a larger share of the household work than did mothers employed full time. We evaluated the replicability of these findings in a large sample of U.S. families through middle childhood.

Summary of Hypotheses

Based on Bronfenbrenner's ecological model of development and prior research, we anticipated that mothers employed part time would have fewer depressive symptoms, better health, be more sensitive parents, provide more learning opportunities, and report higher couple intimacy than mothers who were not employed. When compared with mothers working full time, we hypothesized that mothers working part time would perceive less work-family conflict, less family work conflict, more work-family facilitation and be more sensitive parents, provide more learning opportunities, and be more involved with their child's school. In addition, we expected that mothers working part time would report lower couple intimacy and do a larger proportion of the family work than mothers working full time.

Method

Overview

Children at 10 different geographic sites were followed from birth to fifth grade. Mothers were interviewed at home when infants were 1-month-old. Semistructured interviews and observations of mother-child interactions occurred when the children were 6, 15, 36, and 54 months old and during their first, third, and fifth grade years.

Participants

Families were recruited through hospital visits to mothers shortly after the birth of a child in 1991 in 10 locations in the U.S. (Little Rock, AR; Orange County, CA; Lawrence and Topeka, KS; Wellesley, MA; Pittsburgh, PA; Philadelphia; Charlottesville, VA; Seattle, WA; Hickory, NC; Madison, WI). Recruitment and selection procedures are described in the study documentation, available at <http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies?q=SECCYD>. Of the initial pool of eligible mothers contacted for participation, 1,364 completed a home interview when the infant was 1-month-old and became study participants. The resulting sample was diverse, including 24% ethnic minority mothers, 11% mothers who had not completed high school, and 14% single-parent mothers.

Employment Status

Mothers' employment status was determined by self-reported number of hours worked. We defined part-time employment as between 1 and 32 hours of work per week (Hill, Martinson, & Ferris, 2004). There has been no standard, accepted operational definition of part-time work hours (author citation), and we chose 32 hours as the cutpoint because it represented four 8-hr shifts (recognizing, of course, that many part-time employees work partial shifts). Mothers reporting zero work hours were considered not employed and those working 33 hours or more were considered to be employed full time.

Measures

The well-being measures are described first, followed by the covariates used as controls in the analyses. Additional descriptions of the data collection procedures and measures used can be found at <http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies?q=SECCYD>.

Mothers' well-being

We examined two aspects of well-being: depressive symptoms and overall health. Depressive symptoms were measured using the Center for Epidemiological Studies–Depression Scale (CES-D, Radloff, 1977) at every time point. Internal consistency was good ($\alpha = .88$ to $.91$). The single-item measure of health was obtained by maternal report at every time point; the 4-point response format (1 – 4) was *poor*, *fair*, *good*, and *excellent*.

Work-family interface

Work-family conflict, family work conflict, and work-family facilitation were assessed at 6, 15, and 36 months and when children were in third and fifth grades using the Combining Work and Family Questionnaire (Marshall & Barnett, 1993). Using factor analyses, we identified a four item work-family conflict subscale (e.g., “working leaves you with too little time to be the kind of parent you want to be”) that was consistent across data waves. Items were averaged ($\alpha = .83$ to $.89$ across waves). Five items comprised the family work subscale (e.g., “because of your family responsibilities, the time you spend working is less enjoyable and more pressured”). Items were averaged ($\alpha = .70$ to $.79$). Eight items comprised the work-family facilitation subscale (e.g., “the fact that you're working makes you a better parent”). Items were averaged ($\alpha = .88$ to $.91$). Response options for the items and resulting subscales ranged from 1 (*not true at all*) to 4 (*very true*).

Parenting

We examined three aspects of parenting: sensitivity, provision of opportunities for learning, and school involvement. Maternal sensitivity was measured at each time point using videotapes of mother-child interaction during semistructured 15-min observations using age-appropriate toys and tasks (NICHD ECCRN, 1999). Videotapes were coded at a single site by raters who were unaware of other information about the families. Intercoder reliability was determined by independent coding of 20% of the tapes at each assessment period. Intraclass correlations ranged from $.75$ to $.87$. A maternal sensitivity composite variable was constructed at each age based on 3 ratings. At 6, 15, and 24 months, 4-point ratings of sensitivity to nondistress, positive regard, and intrusiveness (reverse scored) were summed. At 36 and 54 months and at first, third, and fifth grades, 7-point ratings of supportive presence, respect for autonomy, and hostility (reverse scored) were summed. We rescaled these composite scores so they are on the same metric for the various waves dividing mothers' total composite sensitivity scores by the total score possible (12 at 6, 15, and 24 months; 21 at the later ages) and then multiplying by 100. Cronbach alphas exceeded $.70$ at every age.

Provision of opportunities for learning was measured at 6, 15, 36, and 54 months and in third and fifth grades using the learning materials and stimulation subscales from the Home Observation for Measurement of the Environment (HOME, Bradley et al., 1989). At each time point, trained interviewers scored the quantity and quality of educational materials in the home and the extent to which children engaged in stimulating activities. Specific criteria changed over time (e.g., in early childhood, stimulation included “child is taken on an outing by a family member at least once every two weeks” and at fifth grade, “family provides lessons or memberships to support child's talents”). Items were scored 0 or 1, with 1 indicating that the materials or behavior was observed or reported during the home visit. There was a total of 20 items at 6 and 15 months, 23 items at 36 months, 21 items at Grade 3, and 18 items at Grade 5. Total index scores were created by calculating a percentage score that ranged from 0 to 100. All HOME scale data collectors were trained centrally, and reliability was assessed by having each observer code videotaped home visits every 4 months during data collection. Coding of the videotaped visits was compared with standard codes. All observers maintained a criterion of 90% agreement with the standard HOME ratings. O'Brien et al. (2007) demonstrated adequate psychometric properties for this measure using the NICHD-SECCYD data.

Mothers' involvement in children's schooling was assessed via teacher reports at first, third, and fifth grades using the 9-item parent encouragement of school subscale from the Parent-Teacher Involvement Questionnaire (Miller-Johnson, Maumary-Gremaud, & Conduct Problem Prevention Research Group, 1995). This measure assesses the extent to which parents are involved and actively promote academic-related goals with their children (e.g., “How involved is this parent in his or her child's education and school life?”). Response options ranged from 1 (*not at all*) to 5 (*very interested*). Average scores were computed at each time point ($\alpha = .92-.93$).

Couple functioning

Couple functioning measures were administered only to mothers with a partner living in the home at that time point. Across our examination through middle childhood, however, most mothers were partnered at least once and completed these measures for that particular time period.

Mothers' perceived intimacy with their husband/partner was assessed at 54 months, as well as first and fifth grades using the 6-item emotional intimacy subscale of the Personal Assessment of Intimacy in Relationships (PAIR; Schaefer & Olson, 1981). A sample item is “My spouse/partner really understands my hurts and joys.” The response format ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), and items were averaged ($\alpha = .86$ to $.89$).

The proportion of responsibility for housework and child care tasks assumed by mothers was obtained by maternal report using the My Time Spent as a Parent scale (Glysch & Vandell, 1992) at 54 months and first and fifth grades. Mothers rated how much she and her

husband/partner were involved in nine different housework responsibilities (e.g., “cleaning the bathroom,” “doing laundry”) and 16 different child care responsibilities (e.g., “giving child a bath,” “playing with child”). The 5-point response scale ranged from 0 (*my partner's job*) to 4 (*my job*). A score of 2 meant the task was equally shared. A proportion score for the housework and child care scales was created by dividing the average score by 4 and multiplying by 100. Scores ranged from 0 to 100, with higher scores representing a higher proportion of work assumed by mothers.

Child and Family Covariates

Child gender and ethnicity, maternal years of education, and maternal work commitment at 1 month were used as covariates in all analyses. Commitment was measured using the Work Commitment Scale (Greenberger & Goldberg, 1989). Maternal extraversion was measured at 6 months using the NEO Personality Inventory (Costa & McCrae, 1985). Covariates that could vary across time were collected by maternal interview at each time point; these measures were maternal employment status (i.e., FT, PT, NE) during the previous wave, number of children in the home, partner status, partner income, and child general health status (rated from 1 = *poor* to 4 = *excellent*). Partner income was set at 0 if there was no partner in the home at that time point. These covariates were selected because they have been used in previous research on maternal employment (e.g., child gender; Brooks-Gunn et al., 2010), are salient indicators of mother's personal characteristics (e.g., extraversion; Bronfenbrenner & Morris, 1998), are potentially important barriers to employment (e.g., poor child health status; Bianchi & Milkie, 2010), or are important indicators of family need (e.g., partner income).

Analytic Procedures

Hypotheses were tested using multivariate analysis of covariance (MANCOVA) to compare part-time employment with nonemployment and with full-time employment. At each time point, separate MANCOVA analyses were conducted for mother well-being, work-family interface, parenting, and couple functioning. Only employed mothers were used in analyses of the work-family interface, and only partnered mothers were used in the analyses of couple functioning. All analyses controlled for the covariates listed above. The tables report univariate *F* values that apply to the two employment contrasts, the adjusted means for each group of mothers (i.e., adjusted for the covariates), and the standard errors for the adjusted mean estimate.

Missing data occurred in this longitudinal project largely due to failure to complete all assessments within a wave and to attrition. Missing data were imputed using multiple imputation (Rubin, 1987; Schafer, 1997; Schafer & Graham, 2002) under the assumption that missing data were ignorably missing. That is, given the many measures on demographic, child, family, and child care characteristics, there was sufficient information in the data to accurately estimate missing data. Using SPSS (V18), five data sets were created in which missing values were imputed. All of the analyses were conducted using these five data sets. Pooled adjusted means

and t values were calculated, and pooled F values were created by averaging the five values. Effect sizes were estimated as the average of the effect estimates across the five imputed data sets. These were based on the unadjusted means and standard deviations. The pooled multivariate estimates and pooled estimates for the covariates can be obtained from the authors.

Results

Information on mothers' employment status over time is shown in Table 1. The percentage of mothers employed part time was fairly consistent at approximately 25% of mothers. Although not reflected in Table 1, most mothers changed employment status over time. The percentage of mothers who were continuously employed part time across these seven time points was 1.8%; comparable numbers for full-time employment and nonemployment were 11.2% and 2.8%, respectively. In the current study, as such, analyses compare between-groups differences at each time period rather than intramother employment changes across time.

Table 1. *Descriptive Statistics for Mothers' Employment Hours*

	6 mos	15 mos	36 mos	54 mos	Grade 1	Grade 3	Grade 5
Employment	#%	#%	#%	#%	#%	#%	#%
Full time	51537.8	57542.2	57842.4	57242.0	65347.9	66448.7	71352.3
Part time	32123.5	30522.3	32223.6	35926.3	34825.5	33724.7	30922.6
Not employed	52838.7	48435.5	46434.0	43331.7	36326.6	36326.6	34225.1

Note. $N=1,364$. mos = months. Part-time is 1 through 32 hours/week

Mothers' Well-Being

Depressive symptoms

We hypothesized that depressive symptoms would be lower for mothers employed part time than for mothers who were not employed. As shown in Table 2, the part time/nonemployed hypothesis was supported for three of the four preschool assessments (i.e., significant F for two-contrast test and the individual t tests for the part-time/nonemployed contrast). At 6, 15, and 54 months, mothers employed part time reported fewer depressive symptoms than did nonemployed mothers. There were no differences at 36 months or once focal children began elementary school. Differences between groups were small (effect size r .15–.19). Mothers employed part and full time did not differ statistically on depressive symptoms.

Table 2. *Multivariate Analysis of Covariance: Maternal Employment and Mothers' Well-Being Child Aged 6 Month Through Fifth Grade*

Time period	Depressive symptoms		Health	
	t [r adj]	M (SE)	t [r adj]	M (SE)
6 month	F(2, 1351) = 3.79*		F(2, 1351) = 4.18*	
PT vs		8.58 (.45)		3.30 (.04)

NE	2.34* [.19]	10.04 (.38)	-2.34* [.17]	3.18 (.03)
FT	0.34 [.05]	8.77 (.38)	0.02 [.05]	3.30 (.03)
15 month	F(2, 1351) = 8.68***		F(2, 1351) = 1.00	
PT vs		8.56 (.36)		3.17 (.05)
NE	2.83** [.18]	10.56 (.37)	-0.49 [.07]	3.14 (.04)
FT	-0.41 [.03]	8.56 (.36)	0.60 [.03]	3.20 (.04)
36 month	F(2, 1351) = 2.36		F(2, 1351) = 0.85	
PT vs		9.15 (.45)	3.07 (.05)	
NE	1.37 [.12]	9.99 (.40)	-0.45 [.06]	3.04 (.04)
FT	0.23 [.04]	9.29 (.38)	0.41 [.00]	3.10 (.03)
54 month	F(2, 1351) = 7.31***		F(2, 1351) = 11.94***	
PT vs		10.27 (.54)		3.11 (.04)
NE	2.24* [.15]	11.89 (.50)	-2.51** [.15]	2.97 (.04)
FT	-0.51 [.04]	9.86 (.47)	1.56 [.01]	3.20 (.04)
Grade 1	F(2, 1351) = 2.61		F(2, 1351) = 4.87**	
PT vs		8.73 (.48)		3.20 (.04)
NE	1.93 [.13]	10.04 (.46)	2.74** [.15]	3.04 (.04)
FT	0.64 [.07]	9.15 (.42)	0.93 [.06]	3.15 (.03)
Grade 3	F(2, 1351) = 1.13		F(2, 1351) = 4.74**	
PT vs		10.37 (.52)		3.22 (.06)
NE	1.22 [.02]	9.52 (.50)	2.47** [.14]	3.06 (.05)
FT	0.58 [.03]	9.93 (.45)	0.74 [.08]	3.17 (.04)
Grade 5	F(2, 1351) = 1.55		F(2, 1351) = 12.51***	
PT vs		10.23 (.59)		3.14 (.05)
NE	0.65 [.02]	9.75 (.56)	2.81** [.14]	2.93 (.05)
FT	1.32 [.03]	9.29 (.34)	0.45 [.01]	3.17 (.03)

Note. Covariates include work commitment at 1 month, employment status at previous wave, ethnicity, educational status, mother extraversion, number of children in home, child gender, child health, live-in partner, partner income. PT = part time (1–32). NE = not employed. FT = full time. #s in bracket after the t values are effect size *r* expressed in absolute values estimated using unadjusted means and standard deviations. #s in parentheses after the adjusted means are standard errors. **p* < .05. ***p* < .01. ****p* < .001.

Health

We hypothesized that mothers employed part time would have better self-reported overall health than mothers who were not employed. Except for two time points (15 and 36 months), this hypothesis was supported (see Table 2). The group difference was small (effect size *r* .14–.17). Mothers employed part time and full time did not differ on self-reported health.

Work-Family Interface

Work-family conflict

We hypothesized that perceptions of work-family conflict would be lower for mothers employed part time than for those employed full time. This hypothesis was supported for each of the time points at which this measure was administered; the group differences were moderate in size (Table 3; effect size r .23–.36).

Table 3. Multivariate Analysis of Covariance: Maternal Employment and Work-Family Interface Child Aged 6 Month Through Fifth Grade

Time period	Work-family conflict		Family-work conflict		Work-family facilitation	
	t [r adj]	M (SE)	t [r adj]	M (SE)	t [r adj]	M (SE)
6 month						
PT vs		1.69 (.04)		1.53 (.03)		2.68 (.03)
FT	9.12***[.33]	2.20 (.03)	3.26**[.12]	1.66 (.03)	-0.88 [.01]	2.68 (.04)
15 month						
PT vs		1.68 (.05)		1.57 (.04)		2.72 (.05)
FT	7.67***[.36]	2.16 (.03)	0.20 [.08]	1.58 (.03)	0.19 [.02]	2.73 (.03)
36 month						
PT vs		1.88 (.05)		1.57 (.04)		2.76 (.04)
FT	4.12***[.23]	2.17 (.04)	0.73 [.06]	1.61 (.02)	-0.90 [.02]	2.71 (.03)
Grade 3						
PT vs		1.75 (.04)		1.49 (.03)		2.71 (.04)
FT	6.41***[.27]	2.14 (.03)	2.04*[.08]	1.59 (.03)	0.06 [.02]	2.70 (.03)
Grade 5						
PT vs		1.61 (.05)		1.44 (.04)		2.78 (.05)
FT	7.34***[.36]	2.09 (.03)	2.29* [.12]	1.56 (.03)	-0.12 [.00]	2.78 (.03)

Note. Includes only employed mothers. Covariates include work commitment at 1 month, employment status at previous wave, ethnicity, educational status, mother extraversion, number of children in home, child gender, child health, live-in partner, partner income. PT = part time (1–32). NE = not employed. FT = full time. #s in bracket after the t values are effect size r expressed in absolute values estimated using unadjusted means and standard deviations. #s in parentheses after the adjusted means are standard errors. * $p < .05$. ** $p < .01$. *** $p < .001$.

Family work conflict

We hypothesized that perceptions of family work conflict would be lower for mothers employed part time than for those employed full time. This hypothesis was supported for three of five time periods during infancy and when children were in school. The group difference was small (Table 3; effect size r .08–.12).

Work-family facilitation

We hypothesized that perceptions of work-family facilitation would be greater for mothers employed part time than for those employed full time. This hypothesis was not supported (see Table 3).

Parenting

Sensitivity

We hypothesized that observed sensitivity would be highest for mothers employed part time. This hypothesis was supported at 36 months with regards to the part-time/full-time contrast and at 54 months with regards to the part-time/nonemployed contrast. The group differences were small-to-moderate in magnitude (Table 4; effect size $r = .20$ and $.16$ for comparisons with not employed and full time, respectively).

Table 4. *Multivariate Analysis of Covariance: Maternal Employment and Mothers' Parenting Child Aged 6 Month Through Fifth Grade*

Time period	Sensitivity		Opportunities for productive learning		School involvement	
	t [r adj]	M (SE)	t [r adj]	M (SE)	t [r adj]	M (SE)
6 month	F(2, 1351) = 0.99		F(2, 1351) = 2.29			
PT vs		77.03 (.86)		76.45 (.80)	NA	
NE	-1.16 [.18]	75.72 (.70)	-1.95 [.20]	74.36 (.69)		
FT	-0.93 [.08]	76.03 (.65)	-1.63 [.11]	74.78 (.66)		
15 month	F(2, 1351) = 2.10		F(2, 1351) = 3.90*			
PT vs		78.24 (.79)		84.68 (.82)	NA	
NE	-1.49 [.18]	76.78 (.60)	-2.49 [.22]	82.32 (.58)		
FT	.05 [.10]	78.29 (.57)	-0.88	[.11] 83.73 (.56)		
36 month	F(2, 1351) = 3.15		F(2, 1351) = 0.82			
PT vs		82.54 (.71)		69.19 (.93)	NA	
NE	-1.21 [.15]	81.40 (.60)	0.69 [.12]	70.06 (.79)		
FT	-2.34 [.16]	80.33 (.54)	-0.23 [.06]	68.90 (.69)		
54 month	F(2, 1351) = 5.97**		F(2, 1351) = 1.48			
PT vs		81.06 (.76)		87.33 (.62)	NA	
NE	-2.89 [.20]	77.95 (.71)	-1.18 [.14]	86.35 (.66)		
FT	-1.24 [.13]	79.85 (.56)	-1.30 [.08]	86.24 (.66)		
Grade 1	F(2, 1351) = 1.38				F(2, 1351) = 6.73***	
PT vs		79.87 (.77)		NA	3.90 (.05)	
NE	.01 [.08]	79.88 (.74)			.07 [.10]	3.91 (.05)
FT	-1.15 [.13]	78.73 (.62)	-3.37 [.21]	3.65 (.04)		
Grade 3	F(2, 1351) = 1.55		F(2, 1351) = 10.25***		F(2, 1351) = 4.65**	
PT vs		77.26 (.80)		71.98 (.80)	3.57 (.05)	
NE	-1.14 [.12]	76.01 (.67)	-1.17 [.17]	70.66 (.84)	0.35 [.09]	3.60 (.06)

FT	-0.30 [.09]	76.94 (.52)	-4.10 [.25]	67.87 (.57)	-1.98 [.18]	3.45 (.04)
Grade 5 PT vs	F(2, 1351) = 1.00		F(2, 1351) = 5.21**		F(2, 1351) = 3.29*	
		78.04 (.95)		79.66 (1.19)		3.52 (.07)
NE	0.16 [.04]	78.23 (.72)	-0.80 [.15]	78.46 (1.23)	-0.78 [.13]	3.44 (.07)
FT	-0.58 [.10]	77.44 (.43)	-1.91 [.19]	76.31 (0.67)	-1.47 [.17]	3.38 (.04)

Note. Covariates include work commitment at 1 month, employment status at previous wave, ethnicity, educational status, mother extraversion, number of children in home, child gender, child health, live-in partner, partner income. PT = part time (1–32). NE = not employed. FT = full time. #s in bracket after the t values are effect size r expressed in absolute values estimated using unadjusted means and standard deviations. #s in parentheses after the adjusted means are standard errors. * $p < .05$. ** $p < .01$. *** $p < .001$.

Opportunities for learning

We hypothesized that mothers employed part time would create more opportunities for child learning when compared with mothers employed full time. This hypothesis was supported when children were in Grade 3. At Grade 5, the F was significant and the means were in the hypothesized direction. These group differences were small-to-moderate in strength (Table 4; effect size $r .22, .25$). Though not hypothesized, mothers employed part time provided more learning opportunities for toddlers than that provided by nonemployed mothers.

School involvement

We hypothesized that mothers employed part time would be more involved in the child's school than mothers employed full time. This hypothesis was supported, and the group differences were small-to-moderate in strength (Table 4; effect size $r .17-.21$). There were no statistically significant differences in school involvement between nonemployed mothers and those employed part time.

Couple Functioning

Couple intimacy

We hypothesized that couple intimacy would be greater for mothers employed part time than nonemployed mothers. The hypothesis was not supported (see Table 5).

Table 5. *Multivariate Analysis of Covariance: Maternal Employment and Couple Functioning Child Aged 54 Month Through Fifth Grade*

Time	Couple intimacy		Housework performed		Childcare performed	
	t [r adj]	M (SE)	t [r adj]	M (SE)	t [r adj]	M (SE)

period						
54 Month	F(2, 1080) = 0.43		F(2, 1080) = 20.72***		F(2, 1080) = 14.47***	
PT vs	3.74 (.09)		71.51 (1.34)		71.06 (1.15)	
NE	-.57 [.05]	3.69 (.11)	2.14 [.14]	74.95 (1.75)	1.50 [.12]	73.18 (1.60)
FT	-.50 [.05]	3.69 (.11)	-3.01 [.18]	66.54 (1.45)	-2.18 [.17]	68.32 (1.52)
Grade 1	F(2, 1129) = 0.74		F(2, 1129) = 36.16***		F(2, 1129) = 23.67***	
PT vs	3.81 (.06)		71.40 (0.96)		72.08 (.78)	
NE	-0.68 [.07]	3.75 (.05)	2.95 [.17]	75.77 (1.04)	2.07 [.12]	74.26 (.90)
FT	-0.82 [.05]	3.74 (.05)	-3.86 [.20]	66.16 (0.87)	-3.31 [.19]	68.32 (.73)
Grade 5	F(2, 1127) = 1.58		F(2, 1127) = 36.11***		F(2, 1127) = 13.39***	
PT vs	3.72 (.06)		72.63 (1.07)		72.30 (.86)	
NE	.88 [.03]	3.80 (.06)	1.63 [.06]	74.94 (1.05)	1.06 [.11]	73.59 (.80)
FT	1.63 [.04]	3.85 (.05)	-5.27 [.20]	65.50 (0.81)	-3.07 [.26]	68.74 (.81)

Note. Includes only mothers with live-in partner. Covariates include work commitment at 1 month, employment status at previous wave, ethnicity, educational status, mother extraversion, number of children in home, child gender, child health, live-in partner, partner income. PT = part time (1–32). NE = not employed. FT = full time. #s in bracket after the t values are effect size *r* expressed in absolute values estimated using unadjusted means and standard deviations. #s in parentheses after the adjusted means are standard errors. **p* < .05. ** *p* < .01. *** *p* < .001.

Mothers' proportion of family work

We hypothesized that mothers employed part time would do a higher proportion of family work (both housework and child care) than those employed full time. Findings consistently supported this hypothesis for both housework and child care, and the group differences were small-to-moderate in strength (Table 5; effect size *r* .19–.26). The comparisons between part-time employed and nonemployed mothers yielded mixed results. There were no differences at Grade 5, but at 54 months and Grade 1, mothers employed part time performed a lower proportion of child care than did nonemployed mothers. These group differences were small (effect size *r* .12–.17).

Discussion

This study was framed by ecological theory and focused on part-time employment because: (a) part-time employment is seen as a distinct employment status, (b) part-time employment is expected to be associated with diverse aspects of maternal and family well-being, and (c) part-time employment is expected to have different relations with mother and family well-being at different points in family's lives. Our results indicate that part-time employment does have

distinct associations with mother psychosocial well-being, with how work-family conflict is perceived, with parenting, and with family work performed; these patterns vary by developmental periods and for particular aspects of family life.

Mothers' Well-Being

As hypothesized, mothers employed part time reported fewer depressive symptoms than nonemployed mothers, controlling for an extensive set of demographic and individual characteristics. This finding is similar to that found for low-income, urban mothers by Coley et al. (2007) in analyses that controlled for child age. In the present study, however, we found that this difference was present only during the infancy and preschool periods but not after children begin school. Theoretically, an ecological framework suggests that a mother's participation in employment provides her with support and resources that a mother who spends full time at home does not receive. These external resources then contribute to mothers' personal well-being. The age difference that we found may be related to changes in nonemployed mothers' lives once their children enter school. Nonemployed mothers of infants and preschool-age children are likely to be more socially isolated than nonemployed mothers of school-age children, and the lack of social embeddedness may carry with it increased chances of depressed mood (Downey & Coyne, 1990). It also may be that mothers who are home with children all day experience greater child-related stress which is relieved to some extent once children are in school. Additionally, mothers with higher levels of depressive symptoms may have more difficulty seeking employment or keeping a job. For whatever reason, part-time employment during children's early years appears to be a positive factor in mothers' individual well-being.

There were no significant differences on depressive symptoms between mothers employed part and full time. Thus, it may be employment in general rather than the number of work hours that protects against depressed mood when children are young. Our findings were similar to those found with samples of female physicians (Gareis & Barnett, 2002) and in a study that also used the NICHD SECCYD data but focused only on employment during infancy (Brooks-Gunn et al., 2010). The present findings suggest that maternal employment, including both part-time and full-time employment, may reduce risk for decreased well-being as measured by depressive symptoms.

Mothers employed part time also tended to report better health than nonemployed mothers and the same level of health as full-time employed mothers. Coley et al. (2007) did not find this difference in a low-income sample. Future research is needed that examines the interaction between mothers' part-time employment and family economic status.

Work-Family Interface

According to ecological theory, employed mothers are participants in two systems, home and work, and events occurring within each system have effects across both. Balancing the demands from work and family and negotiating solutions to conflicts arising from participation in both

settings are key tasks for employed mothers. Our results indicate that part-time work appears to have some particular advantages over full-time work in this regard. At every time point, mothers employed part time perceived less work-family conflict, and at several times also reported less family work conflict than mothers employed full-time. With regard to the frequently examined construct of work-family conflict, this finding was consistent with results of previous studies that used different measures, differently composed samples in terms of sociodemographic characteristics, and different definitions of full-time work (Barnett & Gareis, 2002; Higgins et al., 2000; Hill et al., 2004). Thus, we can conclude that mothers with dependent children perceive fewer conflicts between work and family life when they commit fewer hours to employment. Perhaps mothers working part time have more time and energy to devote to managing the overlap in demands. It is important to note, however, that the higher levels of conflict between work and family reported by mothers employed full time were not reflected in higher levels of depressive symptoms in this group. Although increased work-family conflict might be associated with increased stress (Hoge, 2009), work-family conflict and depressive symptoms had different associations with the comparison between part-time and full-time maternal employment.

There were no differences by work status on work-family facilitation. Overall, the employed mothers in this sample reported that work had generally positive influences on their family life, perhaps reflecting their increased personal well-being. Further research into the reasons mothers are employed and the reasons they work part time or full time is needed to understand mothers' perceptions of the contributions employment makes to family life.

Parenting

Just as an ecological framework views maternal employment as contributing to maternal psychosocial well-being through the provision of social support and resources from the workplace, so does the theory predict employed mothers would be more positive parents. In addition, mothers who work part time might be expected to have more time and energy to focus on children's needs than those who work full time. Very little prior research has been conducted on mothers' part-time work hours and parenting, but what does exist supports our hypothesis that mothers employed part time would be more positive parents in all of the aspects measured than those employed full time or those who were not employed. We found some but not consistent support for this general proposition.

No consistent pattern was found for sensitivity. Mothers employed part time were observed to be more sensitive than nonemployed mothers at 54 months and also more sensitive than full-time employed mothers at 36 months. Perhaps there is a selection factor at work here, in that some sensitive mothers may choose to work part time and have their children attend preschool for reduced hours, at least for those who have a choice regarding hours of employment. These mothers may feel more free to expand their work hours once children enter school. In fact, there is an increase in the proportion of mothers who work full time beginning at first grade. In the

present analyses, we were not able to follow individual mothers' work patterns over time or incorporate information about their work attitudes and beliefs as moderators.

During the elementary school years, mothers employed part time provided more learning opportunities for their children than mothers employed full time. This was a novel focus and, therefore, there is no existing literature with which to compare our findings. Given that the measure of learning opportunities used in this study includes both materials available in the home (challenging toys, books) *and* experiences outside of the home (visits to parks, museums, and events), employment can be seen as both an advantage, in that the added family income can be invested in toys and learning opportunities such as lessons, and a disadvantage, in that mothers have less time to spend organizing and going along on activities with the child. During the school years having some income but also some time may allow mothers to create a child rearing environment that is rich in opportunities for learning. It is not clear why this difference does not appear in the preschool years. Perhaps the kinds of materials and activities that are considered learning opportunities for preschool-age children are more universally available and less dependent upon either maternal time or family income.

As we hypothesized, mothers employed part time were more involved in their children's primary schooling than mothers employed full time. These findings are congruent with those reported by Muller (1995) for mothers' school involvement during middle school. The structure and scheduling of school-related activities often is not as conducive for involvement by mothers who are employed full time as for those employed part time. As with the provision of learning opportunities, the availability of time to spend on child-focused activities appears to be a key benefit to part-time employment for mothers during the school years.

Couple Functioning

Drawing on the potentially positive effects of shared income production and other aspects of role sharing between partners when both are employed, we hypothesized that mothers working part time would report higher couple intimacy than nonemployed mothers. This hypothesis was not supported. Work status was not related to mothers' perceptions of couple intimacy. It may be that at each developmental period, couples negotiate a mutual work hour arrangement that fits well with their perceived family demands, accommodating mothers', children's, and partners' various needs. Because the perceived needs differ across families, no one work status arrangement would necessarily be associated with couple intimacy; rather, the meshing of work and family needs, goals, values, and resources may be a central predictor of perceived couple intimacy. Early research into maternal employment found support for the hypothesis that women's employment and earnings were associated with increased marital difficulties, but as maternal employment has become normative, this association has been minimized.

We assessed the division of family work (housework and child care) during the preschool and middle childhood periods hypothesizing that mothers employed part time would do more than

mothers employed full time. Prior research has suggested that it takes full-time employment to shift the proportions of family work toward greater equality between mothers and fathers and there are no differences between nonemployed and part-time employed mothers in the proportion of family work they contribute (Barnett & Gareis, 2002; Hill et al., 2004; Stier & Lewin-Epstein, 2000). Our results indicated that both full-time and part-time work was generally accompanied by more equal sharing of family tasks than in families where mothers were not employed. It is important to note, however, that regardless of maternal employment status, mothers consistently performed a greater proportion of family work than did fathers.

Limitations

Given the paucity of focused research on mothers' part-time employment, the results from this study provide much needed information. There also, however, are limitations to the study. One is that we examined maternal, parenting, and family factors based on the age of a single focal child. The addition of a sibling and the presence of other children are potentially important considerations. Studies of maternal employment rarely have examined the data based on the number and ages of all children in the family, and this study was no exception. In addition, although we controlled for an extensive variety of sociodemographic and individual characteristics, a next step in this line of research is to examine these characteristics as potential moderating factors rather than control variables. This contextualizing of the effects of maternal work hours would provide more information about the ways in which the work and family microsystems intersect and help us better understand for whom part-time employment affords benefits and for whom it creates disadvantage.

The study also was limited by its exclusive focus on work hours. Future research needs to examine mediating processes and interactions with other employment-related factors such as professional status, scheduling flexibility, and shift schedules, and with work-related beliefs such as preferred work status, work commitment, and perceptions of the impact of work on family life. Finally, the present research is cross-sectional, although prior work hours were controlled. Maternal employment status is dynamic, and mothers frequently alter their work hours, perhaps in response to family needs at some times and to employer demands at others. Families, too, change over time. Only longitudinal analyses considering multiple sources of variation will provide a complete picture of the intersection between maternal employment and family life.

Conclusions

The results of this study indicate that part-time employment has some benefits for families of young children. In all cases where there were significant differences in maternal well-being, conflict between work and family, or parenting between part-time employment and either no employment or full-time employment, the comparison favored part-time work. Mothers working part time reported themselves to be less depressed than stay-at-home mothers in their children's early years and to have less work-related conflict than those working full time. With regard to

parenting, mothers working part time were observed to be more sensitive in interaction with their preschool-age children than other mothers, to provide more opportunities for learning, and to be more involved in school activities than mothers employed full time. The only domain examined in which part-time work was not clearly beneficial was in the area of couple relationships, as perceived intimacy was not enhanced when mothers were employed part time.

There are clear policy implications to these findings. Employers tend to use part-time work as a money-saving strategy and to consider part-time employees as both expendable and not worthy of investment through the provision of benefits, training, or career advancement. During times of economic stress, when both mothers and fathers may feel a need to maximize their income, part-time work is even more likely to be a cost-saving measure for employers. Yet part-time work seems to be contributing to the strength and well-being of families. It is likely that many mothers (and probably some fathers as well) would elect to work part time if this status were recognized by employers as a legitimate approach to building a career while maintaining a healthy family life. Employer policies providing fringe benefits, at least proportional benefits, to employees in part-time positions and giving part-time employees access to career ladders through training and promotion could be beneficial to employers as well as parents.

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