<u>Maternal Employment and Parenting Through Middle Childhood: Contextualizing</u> Factors

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Abstract:

The authors used data from the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development (N = 1,364) to examine maternal work hour status and parenting (sensitivity and learning opportunities) from infancy through middle childhood. Work hour status was conceptualized as nonemployment, part time, and full time. Adjusting for covariates, mothers employed part time had higher sensitivity scores and higher provision of child learning opportunity scores than did mothers who were not employed, and these differences characterized families during early childhood rather than middle childhood. Mothers' provision of child learning opportunities was greater when she was employed full time (vs. part time) during early childhood. In addition to child age, mothers' ethnic minority status and partner status moderated the association between maternal work hour status and mothers' parenting. In general, the findings supported ideas forwarded by role expansionist theory.

Keywords: cognitive | employment | family | parenting | part time | sensitivity | work

Article:

Maternal employment is normative in the United States, with 71.3% of mothers with children younger than 18 employed in 2011, 8.8% unemployed, and 19.9% not employed (U.S. Bureau of Labor Statistics, 2011). Among employed mothers, 25.4% are employed part time (U.S. Bureau of Labor Statistics, 2013). Interest in maternal employment has historically been fueled by concerns that labor force participation might reduce time spent with children and impair children's development (Bianchi, 2000; Ruhm, 2004). Although findings have varied, current research suggests that children's well-being is not associated with whether or not mothers are employed (Goldberg, Prause, Lucas-Thompson, & Himsel, 2008; Lucas-Thompson, Goldberg, &

Prause, 2010). When also considering work hour intensity, however, investigations using national data have found that mothers who work long hours, as compared with employed mothers who work reduced hours, have children with cognitive difficulties, in particular when the intense employment occurs when children are infants (Brooks-Gunn, Han, & Waldfogel, 2010; Ruhm, 2004).

In addition to examining child well-being, researchers have focused on the intensity of maternal employment and mothers' parenting because the intersection between work and family experiences is expected to shape mothers' role behaviors (Nomaguchi, 2006; Perry-Jenkins & MacDermid Wadsworth, 2013). In the current study we focused on this work–family interface by examining the association between maternal work hour status and mothers' parenting from infancy through middle childhood. Two salient aspects of parenting were examined: (a) emotional support as indexed by maternal sensitivity and (b) cognitive support as indexed by the provision of child learning opportunities (Grusec & Davidov, 2010). Work hour status is an important structural characteristic of paid work, and parenting is a central aspect of familial role performance (Voydanoff, 2002, 2008). Part-time employment may be a useful adaptive strategy for some mothers who are balancing intense employment and family demands (Sliter & Elacqua, 2013), but it also may present significant hardships for other mothers (Duffy & Pupo, 1992).

Using national data from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development (SECCYD; N = 1,364) and a lagged, longitudinal research design, we addressed three primary questions:

- 1. Is mothers' work hour status associated with maternal sensitivity and provision of learning opportunities from infancy through fifth grade?
- 2. How do these associations between work hour categories and supportive parenting vary by ethnic minority status, maternal education, partner status, low-income status, professional status, and the match between a mother's preference and her actual work hour status?
- 3. Which constellations of work hours, child age, and contextualizing factors support a role expansionist perspective and which support a role strain perspective?

Theoretical Foundation

The theoretical grounding for this examination of maternal work hour status and mothers' parenting is based in an ecological life course perspective (Sweet & Moen, 2006; Zvonkovic, Notter, & Peters, 2006). The first proposition utilized is that historical context frames the generation of research questions and the interpretations of particular findings. Historical examinations of the work–family interface over the past 60 years have highlighted dramatic increases in the diversity of family structures and social locations, more intensive work patterns

for women (and men), increased family economic needs, the employment sector's increased reliance on female employees, heightened expectations for parenting, and structural institutional lags in which employment expectations and policies have remained grounded in a need for a full-time homemaker (Barnett, 2004; Moen & Chesley, 2008; Whitehead, 2008). Historical context shaped this study by conceptualizing maternal employment as normative and by including potential contextualizing effects of partner status, educational attainment, low-income status, and ethnicity (i.e., key elements of social location and family circumstance).

A second ecological life course proposition is that the work–family interface needs to be examined across time so that the linkage between the employment career and the parenting career can be better understood (Sweet & Moen, 2006). Age of child was used to index time because the work–family literature has suggested that parents' choices—in particular, mothers' employment choices—are influenced by the needs of young children (Barnett & Gareis, 2006; Milkie & Peltola, 1999; Moen & Sweet, 2003; Perry-Jenkins & MacDermid Wadsworth,2013). Finally, a life course perspective recognizes that parents make choices strategically within an array of structural constraints (Sweet & Moen, 2006). Changing work hours as children age is one of the central strategic decisions parents make (P. Becker & Moen, 1999), and we examined it in this study of work hour status and mothers' parenting from infancy through middle childhood.

In addition to using ecological life course theory as a frame, we used role expansionist theory (Barnett & Hyde, 2001) to generate specific hypotheses. In explicating this theoretical perspective of the work–family interface, Barnett and Hyde (2001) argued that role strain and microeconomic theories that were formulated around the utility of asymmetrical gendered patterns of role specialization (G. S. Becker, 1981; Parsons, 1949) and the scarcity hypothesis (Goode, 1960) are obsolete given current empirical findings. Two of the four propositions from the expansionist perspective were used in the current study. One is that multiple roles are beneficial for individual and relationship health. On the basis of this proposition, we expected that employed mothers would have higher parenting quality than nonemployed mothers. This proposition also can be extended to suggest that mothers employed full time would have higher parenting quality than mothers employed part time because of greater role investment and potential opportunities for growth and success.

A second proposition utilized in this study is that the benefits of multiple role engagement have upper limits, such that role strain may occur in certain intense, vulnerable configurations of time, energy, and resource demands (Barnett & Hyde, 2001; Duxbury, Lyons, & Higgins, 2008; Greenhaus & Parasuraman, 1999). The ecological life course perspective and work–family empirical literatures have identified several potential individual and family characteristics that may create vulnerabilities. We focused on six of these: (a) minority ethnicity (Gerstel & Sarkisian, 2006), (b) low maternal education (Ahrens & Ryff, 2006; Ruhm, 2008), (c) single-parent status (Perry-Jenkins & MacDermid Wadsworth, 2013; Zvonkovic et al., 2006), (d) low household income (Barnett & Hyde, 2001; Ruhm, 2008), (e) nonprofessional occupational status

(Sliter & Elacqua, 2013; Voydanoff, 2002), and (f) a lack of match between actual work hour status and preferred work status (Hakim,2000). Vulnerabilities arising from social locations that add additional demands and constraints as well as compromised opportunities/resources may add additional burdens to those arising from underemployment or restricted role occupancy. As such, although an expansionist perspective was adopted, this second proposition recognizes the importance of examining configurations in which propositions from role strain theory also may be useful. From this theoretical perspective, constellations that (a) limit financial resources (e.g., nonemployment) when particularly needed and/or (b) place unusually heavy burdens in terms of time and energy demands may be associated with lower parenting quality.

Empirical Background

Maternal Work Hour Status and Mothers' Parenting

Research on maternal employment has tended to focus on various aspects of child well-being rather than parenting (Buehler, O'Brien, & Walls, 2011; Sliter & Elacqua, 2013). We found six studies that examined work hour status and some aspect(s) of parenting that was similar conceptually to sensitivity or providing child learning opportunities. Four of these studies included a comparison between full-time and part-time work hours. Five included a comparison between part-time hours and nonemployment.

Three of the four studies that compared full-time and part-time work hours in the prediction of mothers' parenting found small, significant differences that favored reduced employment hours. In a series of cross-sectional analyses of various waves of the SECCYD data, Buehler and O'Brien (2011) found that mothers employed part time (<33 hours/week) had higher parenting scores on four of 16 comparisons than did mothers employed full time. Muller (1995) also found this contemporaneous pattern after analyzing measures of mothers' cognitively supportive parenting of eighth-grade children from the National Education Longitudinal Study (part time, <35 hours/week). Brooks-Gunn et al. (2010) conducted prospective analyses using the SECCYD data and found that European American mothers employed part time (< 30 hours/week) during their child's infancy had higher observed sensitivity scores during that child's first grade than did mothers employed full time during their child's infancy. Lleras (2008) analyzed cross-sectional data from single mothers of preschoolers using data from the National Longitudinal Study of Youth and found that mothers employed between 21 and 35 hours per week had lower parenting quality scores than did mothers who worked fewer (including 0) or more hours weekly. As such, long part-time work hours was a vulnerable configuration when compared with full-time and short part-time work hours. Each of these studies used extensive controls for maternal and child characteristics.

Four of the five studies predicting parenting that compared nonemployment with part-time work hours found small significant differences that favored employment, supporting Raver's (2003) hypothesis regarding the salutary effects of maternal employment on family life. Buehler and

O'Brien (2011) found that mothers employed part time had higher parenting scores than did nonemployed mothers on two of 16 comparisons. Muller (1995) also found this pattern of differences when predicting mothers' school involvement. Analyzing cross-sectional data from families with a school-age child living in New Zealand, Horwood and Fergusson (1999) found that mothers employed part time (< 20 hours/week) had higher responsiveness scores than mothers who were not employed. Using the SECCYD data, Brooks-Gunn et al. (2010) found that European American mothers employed part time during their child's infancy had higher observed sensitivity scores during that child's first grade than did nonemployed mothers. Analyzing data from Canadian families with a preschool child, Nomaguchi (2006) found the reverse:

Nonemployed mothers had higher levels of positive mother—child interaction than did mothers employed part time (< 31 hours/week). In sum, the findings from these six studies suggest that small main effects may exist in the prediction of emotionally and cognitively supportive parenting that favor part-time employment hours over full-time work and nonemployment and that these effects may span infancy through middle childhood.

Potential Contextual/Moderating Factors

Theory (Perry-Jenkins & MacDermid Wadsworth, 2013; Sweet & Moen, 2006; Voydanoff, 2008), research (Budig & England, 2001; Ruhm,2008), and narrative essays (Buehler et al., 2011; Sliter & Elacqua, 2013) have highlighted the important premise that family and employment characteristics contextualize the associations between maternal work hour status and various aspects of family life, including mothers' parenting. On the basis of a review of the existing research on maternal employment (e.g., Budig & England, 2001; Buehler et al., 2001; Perry-Jenkins & MacDermid Wadsworth, 2013; Ruhm, 2008; Sweet & Moen, 2006; Voydanoff, 2008), six characteristics that may shape the effects of work hour status are (a) ethnic minority status, (b) lower educational attainment, (c) not having a live-in partner, (d) low income, (e) nonprofessional occupational status, and (f) a discrepancy between actual work hours status and preferred work hour status.

Ethnic minority status may interact with nonemployment or reduced work hours to create a vulnerable configuration in regard to mothers' parenting quality. Brooks-Gunn et al. (2010) found that the contrast between full- and part-time hours predicted observed sensitivity during early childhood for European American mothers but not for African American mothers. In tangential research focused on various child outcomes rather than mothers' parenting, several researchers have found that European American families are more vulnerable to difficulties in the face of intense work hours than are ethnic minority families (Berger, Brooks-Gunn, Paxson, & Waldfogel, 2008; Brooks-Gunn, Han, & Waldfogel, 2002; Han, Waldfogel, & Brooks-Gunn, 2001; Waldfogel, Han, & Brooks-Gunn, 2002; Ruhm, 2008). Gerstel and Sarkisian (2006) highlighted the importance of mothers' full employment in ethnic minority families, and, as such, reduced work hours may be a liability.

In terms of educational attainment, we anticipated employment to be more strongly associated with parenting quality in mothers of higher versus lower educational attainment because mothers with more education are more likely to continue employment after a child's birth and to view employment positively (NICHD Early Child Care Research Network, 1997). Lower educational attainment, however, also may interact with maternal work hours to create a vulnerable configuration in regard to mothers' parenting quality. Compared with full-time employment, part-time employment might be advantageous when coupled with high educational attainment (vs. low educational attainment) because this may be a work–family niche in which part-time work can serve as a helpful balancing strategy (E. J. Hill, Märtinson, & Ferris, 2004; Tausig & Fenwick, 2001). To the contrary, however, in tangentially related research, Ruhm (2008) found that the vulnerable configuration for lower child cognitive scores comprised intense work hours and attending some college (vs. not pursuing education past high school).

Low-income status also may interact with maternal work hours to create a vulnerable configuration in regard to mothers' parenting quality (Sliter & Elacqua, 2013). Parenting quality may be higher when mothers work more hours because of financial need (Lleras, 2008). In child-outcome research, however, income interactions have yielded contrary findings. Lower child outcomes have been found when maternal employment (i.e., full time rather than part time; Ruhm, 2008) was associated both with higher incomes and with lower incomes (Han et al.,2001).

Being partnered also may contextualize the effects of maternal work hours on mothers' parenting quality by decreasing financial strain (Raver,2003) and by creating a context in which full-time work hours may be voluntary (Sliter & Elacqua, 2013). In child-outcome research, Brooks-Gunn et al. (2002) found that full-time employment during infancy was associated more strongly with lower child cognitive scores at age 36 months in partnered families than in single-mother families.

Mothers in professional positions are more likely to prefer employment over nonemployment (Jacob, 2008) and to be employed continuously while they have young children (Hynes & Clarkberg, 2005). In terms of work hours, Higgins, Duxbury, and Johnson (2000) found that, compared to full-time employment, part-time work was associated with mothers' positive feelings of time management; this association was stronger for women in nonprofessional than professional positions. This finding is in contrast to Sliter and Elacqua's (2013) suggestion that part-time hours for women in professional positions afford them opportunities to maintain connections with work while also meeting family needs for caregiving.

Finally, the match between a mother's preference for nonemployment, part-time work, or full-time work and her actual work hour status may be associated with positive parenting (Gottfried, Gottfried, & Bathurst, 1995; Hakim, 2000). Using data through child 36 months from the SECCYD, Holmes, Erickson, and Hill (2012) found that match was not associated with parenting stress but that moving away from a match between actual and preferred work hours over time was associated with higher parenting stress. Given that they also found no significant

interaction between work hours and match and that the current study focused on adaptive maternal responses, we expected to find main effects of match on parenting quality but no interaction between work hour status and the match between preferred and actual hours.

Control Variables

With regard to maternal employment, characteristics of mothers and the family context may shape decisions regarding work hours (Sliter & Elacqua, 2013), and examinations of the associations between work hours and parenting need to take these characteristics into account. Employment research has considered such characteristics as selection effects into various work hour arrangements (J. L. Hill, Waldfogel, Brooks-Gunn, & Han, 2005). Accordingly, in the current study several maternal and family context characteristics were included in the analyses as controls: maternal age, prebirth employment and income, number of children in the household, child health status, maternal personality traits, maternal depressive symptoms, employment attitudes, and child care quality (Berger et al., 2008; Burchinal & Clarke-Stewart, 2007; Greenstein, 1995; J. L. Hill et al., 2005; NICHD Early Child Care Research Network, 2003; Ruhm, 2004).

The Current Study

The present study provides a longitudinal examination of the association between mothers' work hour status, categorized as no employment, part-time employment, and full-time employment, and the quality of parenting from child age 1 month through fifth grade. A role enhancement theoretical perspective guided hypothesis testing along with elements from role strain theory and research that suggest some configurations of work and family factors that may be particularly challenging. We addressed these important gaps in the literature by treating both maternal work hours and parenting as time-varying variables. Intensity of employment also was examined (rather than just employment status) by distinguishing full-time from part-time work. Finally, a lagged longitudinal design was used such that maternal work hours were associated with mothers' parenting at the next wave of data collection.

Method

Children at 10 different U.S. geographic sites were followed from birth through 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, 24, 36, and 54 months old and during their first-, third-, and fifth-grade years. For this study, both maternal work hour status and parenting were operationalized as time-varying variables. These data were lagged such that work hour status values from baby 1 month old through third grade were used to predict parenting scores from baby 6 months old through fifth grade.

Participants

Families were recruited through hospital visits to mothers shortly after the birth of a child in 1991. Recruitment and selection procedures are described in the study documentation, available at www.icpsr.umich.edu/icpsrweb/ICPSR/studies?q=SECCYD. Of the eligible, contacted mothers, 1,364 completed a home interview when the infant was 1 month old and became study participants. These families were very similar to the eligible hospital sample on demographic characteristics. Although not nationally representative, the resulting sample was diverse, including 24% ethnic minority mothers, 11% mothers who had not completed high school, and 14% single mothers. The SECCYD sample has higher proportions of European American families, higher educational attainment, higher household income, and higher receipt of public assistance than the U.S. population (NICHD Early Child Care Research Network, 2001).

Measures

Maternal work hours

Mothers' work hours was determined by self-reported number of hours worked per week at nine time points: child 1, 6, 15, 24, 36, and 54 months, and first, third, and fifth grades. We defined part-time employment as between 1 and 32 hours of work per week (E. J. Hill et al.,2004). There has been no standard, accepted operational definition of part-time work hours (Buehler et al., 2011), and we chose 32 hours as the high end of part time because it represented four 8-hour shifts (albeit many part-time employees work partial shifts). Mothers who reported no work hours were considered not employed, and those who reported working 33 hours or more were considered employed full time. Two dummy variables were estimated at each time point, with part-time employment representing the referent group. Thus, the full-time variable reflected the contrast between working full time and part time, whereas the not-employed variable reflected the contrast between 0 work hours and part-time hours. Because there is no accepted definition for part-time employment, separate analyses were conducted with part time defined as 30, 32, and 34 hours, respectively; the results were very similar (with one exception, noted in the results section). Only the results for 32 hours as the cutoff are reported, and details from the other analyses are available from the first author.

Parenting

Maternal sensitivity was measured at each time point (except baby 1 month old) using videotapes of mother–child interaction during semistructured 15-minute observations using age-appropriate toys and tasks (NICHD Early Child Care Research Network, 1999). Based on independent coding of 20% of the tasks, interrater reliability (intraclass correlation coefficients) ranged from .75 to .87. A maternal sensitivity composite variable was constructed at each age based on three ratings. At 6, 15, and 24 months, 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, ratings of supportive presence, respect for autonomy, and hostility (reverse scored) were summed. For this study, composite scores were rescaled so that they were on the same metric

across waves: Mothers' total composite sensitivity scores were divided by the total score possible (12 at 6, 15, and 24 months; 21 at the later ages) and then multiplied by 100.

Provision of learning opportunities was measured at 6, 15, 36, 54 months, third grade, and fifth grade using the learning materials and stimulation subscales from the Home Observation for Measurement of the Environment (HOME; Bradley et al., 1989). Criteria were developmentally appropriate (e.g., in early childhood, stimulation included "Child is taken on an outing by a family member at least once every two weeks;" at fifth grade, "Family provides lessons or memberships to support child's talents"). There were 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 rescaled by calculating a percentage score that ranged from 0 to 100. All HOME data collectors were trained centrally, and reliability was maintained by having each observer code videotaped home visits every 4 months during data collection. O'Brien et al. (2007) demonstrated adequate psychometrics for this measure using the SECCYD data.

Moderating variables

Ethnicity and educational status were time-invariant variables assessed when the baby was 1 month old. Mother ethnicity was coded 0 = non-Hispanic White and 1 = other. Maternal education status was coded 0 = high school degree or less and 1 = post-high school education. Criteria for these categorizations were adopted from Ruhm (2008), and the use of only two categories for each moderating variable helped maintain adequate cell sizes in the analyses. Lowincome status, partner status, professional status, and actual-preferred work status matchwere time-varying variables (i.e., assessed across waves). To measure low income, family income was divided by the poverty level for that family size; families with income-to-needs ratios of 2.0 or lower were considered low income. Low-income status was then coded as 0 = not low income and 1 = low income. Partner status was coded as 0 = husband or partner not living in the home and 1 = husband or partner living in the home. *Professional status* was identified by asking employed mothers to describe their position title and their primary duties. Executive, administrative, or managerial and professional positions were considered professional (0 = nonprofessional, 1 = professional). Mothers'actual-preferred work status match was examined by comparing mothers' reported preference for an employment status with her actual employment status. Mothers who reported a preference for their actual work status were considered to match (0 = no match, 1 = match).

Covariates

Data on *prebirth employment* (0 = not employed, 1 = employed), *prebirth income* (assessed in dollars, grand-mean centered), *maternal age* in years (grand-mean centered), and *child gender* (0 = female, 1 = male) were collected during the 1-month interview. Six additional time-invariant covariates were included in the analyses to help minimize selection effects into the three work hour categories. Assessed at 1 month, *benefits of employment* (grand-mean centered)

was measured using the five-item Benefits subscale ($\alpha = .80$) of the Costs and Benefits of Employment scale (Greenberger, Goldberg, Crawford, & Granger, 1988), and work commitment (grand-mean centered) was measured using the 11-item Work Commitment Scale (α = .83; Greenberger & Goldberg, 1989). Maternal agreeableness, extraversion, and neuroticism (each grand-mean centered) were assessed using the NEO Personality Inventory (Costa & McCrae, 1985; $\alpha s = .74 - .84$) at 6 months. Child care quality (grand-mean centered) was measured by trained observers' multiple ratings at each time point from 6 months to 54 months if a child was receiving at least 10 hours of nonmaternal care (Brooks-Gunn et al., 2010). We averaged the composite ratings from each wave to indicate the average child care quality from infancy through 54 months. Three time-varying covariates also were included as control variables given their associations with both work hours and parenting. Maternal depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale (Radloff, 1977; $\alpha s = .88 - .91$). Child health was measured using a 1 (poor) to 4 (excellent) maternal rating. Number of children living at home each wave also was reported by mothers. Each time-varying control variable was grand-mean centered and was not lagged in the analysis (i.e., concurrent with the parenting score rather than work hour status).

Analytic Procedures

Maternal sensitivity and opportunities for learning were modeled in separate analyses. Data were analyzed using multilevel regression procedures using SAS Version 9.4. The estimation method was maximum likelihood. A random effects model was estimated rather than a fixed effects model in order to be able to present the regression estimates of the extensive array of time-invariant covariates and moderators and so that between-mother patterns could be discerned in addition to the within-mother patterns (Allison, 2009; Wooldridge, 2010). This was central to the current study because some of the moderating analyses included time-invariant contextual factors.

Time was scaled so that a one-unit increase in time was equivalent to 1 year (12 months). Time was centered at 54 months (the approximate middle point of the study) because the ecological life course frame for this study focused on adaptations mothers make across time; centering at a reasonable demarcation between early and middle childhood was consistent with this perspective. We also wanted to present the intercept estimate on the parenting measures at the middle of the study but before children entered first grade rather than at the beginning of the study because several previous studies that have used the SECCYD data have focused on very young children and have already presented these estimates.

Lagged rather than parallel models were estimated; that is, the work hour variables and the time-varying moderators occurred in time before the parenting variables, strengthening the time-ordered assumptions of the models. We used multiple imputation to address missing values. Although both multiple imputation and full information maximum likelihood techniques are excellent methods when using longitudinal data and are preferred over deleting cases (Schafer &

Graham, 2002), multiple imputation is favored if the analytic models may not include all of the possible reasons for the missingness (Widaman, 2006). In this study, we used multiple imputation to obtain eight full information data sets with sample sizes of 1,364. The multiple imputation first was conducted to estimate missing values on the time-invariant covariates. The imputation procedure was then repeated for each of the time-varying variables, using data on the given predictor from the additional waves as well as the information from the time invariant variables to estimate the remaining missing information (Engels & Diehr, 2003). The percentage of missing data on the time-invariant variables ranged from 0% (i.e., complete data on age, prebirth employment, and child gender) to 6.7% (the three personality variables). The percentage of missing data on the time-varying variables, defined as no information across time, ranged from <1% (low-income status) to 5.2% (actual–preferred work hour match).

Random coefficients were estimated for the intercept and the linear slope of the two parenting behaviors (i.e., random line in SAS). All of the predictors other than time were estimated with fixed coefficients (i.e., model line in SAS). The following formula illustrates the analytic model with the work hour variables included as well as the control variables. The combined formula (Singer, 1998), including the time-invariant (i.e., Level 2) and time-varying (i.e., Level 1) predictors detailed in the measurement section, was (see column 2 in Tables 3 and 4) the following:

Sensitivity_{it} or Learning Opportunities_{it} = $b_{00} + b_{10}$ (time) + b_{20} (full time) + b_{30} (not employed) + b_{40} (full time × time) + b_{50} (not employed × time) + b_{01} (mother's age) + b_{02} (education) + b_{03} (ethnicity) + b_{04} (agreeableness) + b_{05} (extraversion) + b_{06} (neuroticism) + b_{07} (prebirth employment) + b_{08} (benefits of employment) + b_{09} (work commitment) + b_{60} (depressive symptoms) + b_{010} (prebirth income) + b_{011} (child gender) + b_{012} (child care quality) + b_{70} (child health) + b_{80} (number of children) + b_{90} (partner status) + $\mu_{0}t$ (random coefficient for intercept) + $\mu_{1}t$ (random coefficient for slope) + r_{it} ,

where b_{00} represents the estimated sample average on the maternal parenting behavior when the child was 54 months old; b_{10} represents the estimated average linear change per year in the parenting behavior; b_{20} and b_{30} represent the estimated average contrast of full-time work hours and no work hours, respectively, to part-time work hours; and b_{40} and b_{50} represent the estimated interaction between these two work hour contrasts and time. The coefficients associated with time-invariant variables are noted with subscripts that begin with zero, whereas coefficients associated with time-varying variables are noted with subscripts beginning with numbers greater than zero. Interactions (coefficients not shown in the formula) were examined individually in separate models.

Results

Descriptive Information

The descriptive statistics for the variables used in this study are shown in Tables 1 and 2. On average, and excluding work hour data at 1 month, the percentage of mothers employed part time was fairly consistent at approximately 25%, varying between a low of 22.4% at 15 months and a high of 27.9% at 54 months (see Table 2). This average rate for part-time employment corresponded closely with current census figures (25.4%). Full-time employment varied between 39% at 6 months and 53.3% at fifth grade. The percentages of mothers not employed varied between 39% at 6 months and 23.7% at fifth grade. In terms of within-mother variability (data not shown in tables), most mothers (84.2%) changed work hour status over time. Between 6 months and fifth grade, the percentages of mothers who were continuously employed part time, full time, and not employed were 1.8%, 11.2% and, 2.8%, respectively.

Table 1. Descriptive Statistics for Time-Invariant Control Variables

Variable	N/n (%)	M (SD)
Mother's age	1,364 (100)	28.11 (5.63)
Education ($N = 1,363$)		
No post-HS education (0)	881 (64.6)	
Post-HS education (1)	482 (35.3)	
Ethnicity (<i>N</i> = 1,360)		
Non-Hispanic White (0)	1,089 (79.8)	
Other (1)	271 (19.9)	
Agreeableness	1,272 (93.3)	46.28 (5.29)
Extroversion	1,272 (93.3)	29.77 (7.16)
Neuroticism	1,272 (93.3)	42.49 (5.83)
Prebirth employment ($N = 1,364$)		
Not employed (0)	227 (16.6)	
Employed (1)	1,137 (83.4)	
Benefits of employment	1,363 (99.9)	19.19 (3.17)
Work commitment	1,356 (99.4)	21.23 (5.87)
Prebirth income	1,299 (95.2)	48,223.64 (36,664.80)

Child gender ($N = 1,364$)		
Female (0)	659 (48.3)	
Male (1)	705 (51.7)	
Child-care quality	1,134 (83.1)	2.92 (0.42)

Note: 0s and 1s in parentheses indicate values for the dummy-coded controls. HS = high school.

 Table 2. Descriptive Statistics for Time-Varying Variables

Variable	1 month	6 months	15 months	24 months	36 months	54 months	Grade 1	Grade 3	Grade 5
Employment status									
Full time (%)	2.7	39.0	42.6	41.4	42.7	42.3	49.3	50.4	53.3
Part time (%)	7.2	36.9	35.0	33.6	33.5	29.8	24.6	24.6	23.7
Not employed (%)	90.1	24.1	22.4	25.0	23.8	27.9	26.2	25.0	22.9
Total N	1,364	1,277	1,242	1,206	1,213	1,083	1,021	1,052	998
Missing n	0	87	122	158	151	281	343	312	366
Depressive symptoms									
Descriptive									
M		8.97	9.05	9.40	9.21	9.83	8.39	9.07	8.73
SD		8.34	8.18	8.63	8.31	8.70	8.47	8.85	8.62
Total N		1,278	1,241	1,119	1,202	1,077	1,009	1,026	1,019
Missing n		86	123	245	162	287	355	338	345
Partner status									
Partner in home %	85.6	86.3	77.6	86.2	85.2	83.4	81.6	81.5	81.5
No partner in home %	14.4	13.7	13.0	13.8	14.8	16.6	18.4	18.5	18.5
Total N	1,362	1,276	1,236	1,197	1,194	1,084	1,034	1,053	1,001

Missing n	2	88	128	167	170	280	330	311	363
Child health									
Descriptive									
M	3.68	3.34	3.24	3.19	3.27	3.39	3.51	3.55	3.47
SD	0.54	0.74	0.73	0.73	0.73	0.65	0.61	0.61	0.62
Total N	1,364	1,279	1,243	1,207	1,216	1,083	1,048	1,075	1,030
Missing n	0	85	121	157	148	281	316	289	334
Number of children									
Descriptive									
M	1.93	1.90	1.93	2.01	2.13	2.27	2.40	2.40	2.48
SD	1.09	1.04	1.05	1.05	1.00	0.98	0.95	0.98	1.04
Total N	1,364	1,279	1,243	1,207	1,216	1,084	1,025	1,076	1,030
Missing n	0	85	121	157	148	280	339	288	334
Low-income status									
Low income %	44.4	30.8	33.1	29.1	33.9	30.9	27.2	23.9	23.9
Not low income %	55.6	69.2	66.9	70.9	66.1	69.1	72.8	76.1	76.1
Total N	1,273	1,269	1,231	1,183	1,208	1,071	981	980	993
Missing n	91	95	133	181	156	293	383	384	371
Professional status									
Professional %	33.9	35.8	35.0	36.6	36.3	37.3	38.6	38.6	40.5
Nonprofessional %	66.1	64.2	65.0	63.4	63.7	62.7	61.4	61.4	59.5
Total N	1,126	738	1,093	1,082	1,101	1,067	1,014	1,042	990
Missing n	238	626	271	282	263	297	350	322	374
Match									

Match %	22.6	19.4	19.7	19.6	17.8	
No match %	77.4	80.6	80.3	80.4	82.2	
Total N	1,156	1,121	1,072	1,092	957	
Missing n	208	243	292	272	407	

Although no participants were omitted from these analyses, we used bivariate chi-square and *t* test estimates to examine potential bias in the regression analyses between the mothers who stayed in the study through fifth grade and those who left the study. Maternal employment status at 6 months was not associated with whether or not mothers stayed in the study. There also were no significant attrition group differences on several of the covariates: extroversion, neuroticism, prebirth employment, benefits of employment, work commitment, depressive symptoms, number of children, and child-care quality. There were, however, several significant differences. Mothers who stayed in the study through Grade 5 (vs. those who left) were (a) about 1.5 years older, (b) more likely to have education past high school, (c) more likely to be non-Hispanic White, (d) slightly higher on Agreeableness scores, (e) more likely to have a female study child, (f) slightly higher on child health ratings, and (g) more likely to have a partner living in their home.

Mothers' Emotional Support—Observed Sensitivity

Before testing hypotheses focused on mothers' work hour status and sensitivity, we examined the unconditional growth curve for sensitivity from child age 6 months through fifth grade. The average sensitivity score at child age 54 months was 78.19 (variable scaled 0–100). Maternal sensitivity was stable over time, on average (linear slope = 0.001, ns). A decomposition of the total variance in maternal sensitivity scores indicated that 39.28% of the variance was between mothers ($\tau_{00} = 72.54$, Z = 21.84, p < .001) and 60.72% of the variance was within mothers across time ($\sigma^2 = 112.13$, Z = 69.09, p < .001). Therefore, the unconditional growth model indicated that there was sufficient variability in sensitivity between and within mothers for further analyses.

Mothers' work hour status

Our first hypothesis was that maternal sensitivity is higher when mothers are fully employed (part-time greater than nonemployment, full-time greater than part-time work hours). Controlling for an extensive set of covariates (see Table 3, Column 2), sensitivity scores were higher for mothers employed part time (M = 76.53) than for mothers who were not employed (M = 75.21, b = -1.32, p < .001, 1.32% difference). Given that data were lagged, these work hour differences were associated with subsequent maternal sensitivity scores, strengthening the inferences regarding the time ordering of work hours and parenting. This association between maternal work hour status and mothers' observed sensitivity was moderated by age of child (b = 0.33, p < .01). Sensitivity scores were higher for mothers employed part time than for

nonemployed mothers during early childhood (2.63% difference); there was no difference in scores during middle childhood (see Figure 1). There was no significant difference in sensitivity scores between mothers employed full time (M = 76.44) and mothers employed part time (M = 76.53, b = -0.09, ns), and no significant interaction between this contrast and age of child, suggesting that this lack of difference characterized families in both early childhood and middle childhood. Thus, the hypothesis was supported when comparing employment with nonemployment but not when comparing part- and full-time work hours.

Table 3. Work Hour Status and Maternal Sensitivity Infancy Through Middle Childhood: Moderating Effects of Maternal and Family Factors

Variables	Work hour status	Controls	Ethnicity moderato r	Educatio n moderato r	Partner moderato r ^a	Low- income moderato r ^a	Professio nal moderato r ^a	Match moderator
Sensitivity								
Intercept	78.94* **	76.53***	76.67***	76.53***	75.29***	77.16***	76.52***	76.47***
Time	-0.20^{*}	-0.19*	-0.27**	-0.13	0.13	-0.33**	-0.14	-0.21
Work hour status								
Full time (FT)	-0.27	-0.09	-0.18	0.08	1.96*	-0.51	-0.02	-0.43
Not employed (NE)	-1.46*	-1.32***	-1.37***	-1.49***	-0.62	-0.91*	-1.62***	-1.17*
FT × time ^a	0.06	0.09	0.06	0.10	-0.30	0.16	0.15	0.18
NE × time ^a	0.34**	0.33**	0.40***	0.36**	0.01	0.45**	0.21	0.34
Control variables								
Mother's age		0.22***	0.22***	0.22***	0.21***	0.21***	0.22***	0.20***
Education		4.27***	4.27***	4.36***	4.25***	4.16***	4.34***	4.06***
Ethnicity		-4.45***	-5.15***	-4.46***	-4.42***	-4.44***	-4.47***	-3.51***
Agreeableness		0.29***	0.29***	0.28***	0.28***	0.28***	0.29***	0.32***
Extroversion		0.03	0.03	0.04	0.03	0.03	0.04	0.06
Neuroticism		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.002
Prebirth		1.24*	1.27*	1.25*	1.22*	1.23*	1.27*	1.37*
employment								
Benefits of		-0.12	-0.12	-0.12	-0.12	-0.11	-0.12	-0.09
employment								
Work commitment		-0.11**	-0.11**	-0.11**	-0.11**	-0.10*	-0.11**	-0.12**
Depressive symptoms ^a		-0.03*	-0.03	-0.03*	-0.03*	-0.03	-0.03	-0.07**
Prebirth income		0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.000003
Child gender		-1.28**	-1.27**	1.28**	1.28**	-1.26**	-1.28**	-1.75***
Child health ^a		0.07	0.09	0.08	0.07	0.08	0.08	-0.06
Number of children ^a		-0.21	-0.21	-0.20	-0.20	-0.18	-0.23	-0.33
Child care quality		1.52**	1.52**	1.50**	1.51**	1.48**	1.51**	1.57*
Partner status ^a		1.54***	1.47**	1.51**	3.00***	1.36**	1.53***	1.73**

Low-income					-1.22*		
status ^a							
Professional						-0.06	
status ^a							
Matcha							0.23
Moderating							
variables							
Moderator \times FT		0.41	-0.56	-2.44^{*}	0.89	-0.22	-0.82
Moderator × NE		0.45	0.6	-0.79	-0.64		0.48
Moderator × time		0.49*	-0.14	-0.36	0.45*	-0.11	0.13
Moderator \times FT \times		0.03	-0.08	0.43	-0.19	-0.17	-0.60
time							
Moderator × NE ×		-0.45	-0.11	0.36	-0.46		-0.50
time							

Note: N = 1,364 for each model. Parameters are unstandardized regression coefficients. Sensitivity is centered at 54 months. FT indicates the contrast between full-time and part-time work hours. NE indicates the contrast between no employment and part-time work hours. ^a Time-varying variable. *p < .05. **p < .01. ***p < .001.

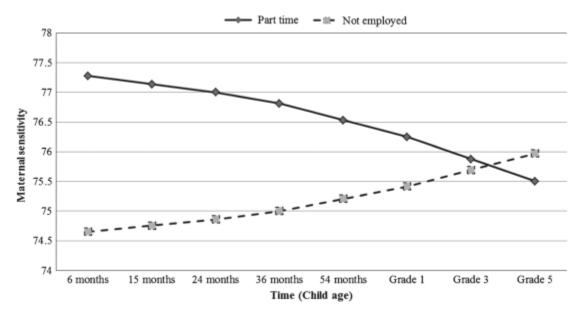


Figure 1. Maternal Nonemployment and Part-Time Work Hours by Child Age in Prediction of Maternal Sensitivity.

Moderators

Our second research question focused on the moderating effects of six variables that may interact with mothers' work hour status when predicting maternal sensitivity: (a) ethnic minority status, (b) maternal education, (c) partner status, (d) low-income status, (e) nonprofessional status, and (f) actual–preferred work hour match. We tested moderating effects one at a time in six separate equations. In each analysis, 3 two-way interactions were added to the model: (a) moderating variable × time, (b) moderating variable × full time (vs. part time), and (c) moderating

variable × not employed (vs. part time). Two 3-way interactions among the moderator, mothers' work hour status (full time or nonemployed), and time also were included in the model. These three-way interactions tested whether any significant intersections between the moderator and maternal work hours differed across time (i.e., child's age).

Mothers' work hour status did not interact with ethnic minority status, maternal education, low-income status, professional status, or match in the prediction of maternal sensitivity. Work hour status did interact with partner status (see Table 3, column 5). There was a significant interaction between full-time work hours (vs. part time) and partner status (b = -2.44, p < .01). Among mothers employed part time, sensitivity scores were higher (M = 78.29; see Figure 2) for mothers who had a partner at home than for mothers who did not (M = 75.29, a 3.00% difference). There was no difference in parenting sensitivity scores for mothers employed full time who had a live-in partner (M = 77.81) and those who did not (M = 77.25). Thus, in reference to sensitive parenting, mothers vulnerable to experiencing role strain were those who were employed part time rather than full time and who did not have a partner living in the home. Also, in this particular analysis, the main effect of full-time work hours (vs. part time) changed direction and favored full-time work hours rather than part-time hours (see Table 3, column 5).

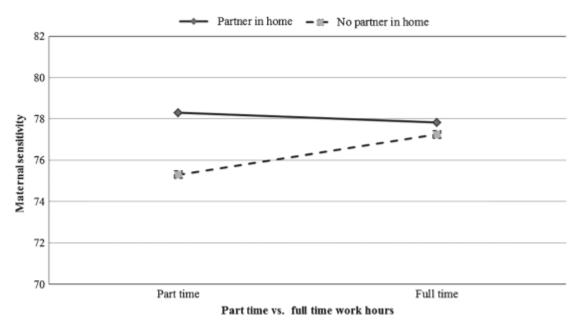


Figure 2. Maternal Part-Time and Full-Time Work Hours by Partner Status in Prediction of Maternal Sensitivity.

Controlling for maternal work hour status (so tangential to the current study), ethnicity and low-income status each interacted with child age (i.e., time) in the prediction of maternal sensitivity scores (figures available from first author). The difference between non-Hispanic White mothers' and ethnic minority mothers' scores was greater in early childhood (e.g., 6.22% at 6 months) than in middle childhood (2.84% at fifth grade). Ethnic minority mothers' scores increased as children aged (a 2.19% increase), whereas non Hispanic White mothers' scores decreased as children aged

(a 1.19% decrease). The difference between mothers with low incomes and other mothers also was greater in early child hood (2.05%) than in middle childhood (0.12%). Mothers with low incomes had higher scores as children aged (0.99% increase), whereas other mothers had lower scores as children aged (1.06% decrease).

As noted in the method section, the patterns of results were the same when we used 32 or 34 as the cutoff point for part-time work hours, with one exception: When 34 hours was used as the cutoff, there was a significant three-way interaction among low income status, child age, and full-time versus part-time work hours. The significant interaction between low-income status and child's age was stronger for mothers employed part time than for mothers employed full time. A vulnerable configuration in reference to maternal sensitivity was for low-income mothers who were employed part time (rather than full time) when children were young.

Mothers' Cognitive Support—Provision of Opportunities for Learning

Mothers' cognitive support was indexed by interviewer assessment of maternal provision of opportunities for learning using the HOME. Estimation of the unconditional growth curve for learning opportunities indicated that the estimated average learning opportunities score at child age 54 months was 76.95 (variable scaled 0–100; estimate not shown in tables). Maternal provision of learning opportunities decreased over time (linear slope -0.33, t = -6.99, p < .001). A decomposition of the total variance in maternal provision of learning opportunities scores indicated that 39.21% of the variance was between mothers ($\tau_{00} = 110.26$, Z = 20.65, p < .001), and 60.79% of the variance was within mothers across time ($\sigma^2 = 170.96$, Z = 58.40, p < .001). Therefore, there was sufficient variability in provision of learning opportunities between mothers and within mothers for further analyses.

Mothers' work hour status

We hypothesized that mothers' provision of opportunities for child learning would be higher when mothers were employed (i.e., full time greater than part time and part time greater than nonemployment). Controlling for an extensive set of covariates (see Table 4, Column 2), provision of learning opportunity scores were higher for mothers employed part time (M = 72.38) than for mothers who were not employed (M = 71.30, b = -1.08, p < .05, a 1.08% difference). This association between maternal work hour status and mothers' provision of learning opportunities was moderated by child age (b = 0.38, p < .05). Scores were higher for mothers employed part time than for nonemployed mothers during early childhood (a 2.59% difference); the difference was smaller (1.00%) and reversed during middle childhood (see Figure 3).

Table 4. Work Hour Status and Provision of Child Learning Opportunities Infancy Through Middle Childhood: Moderating Effects of Maternal and Family Factors

Variable	Work hour	Controls	Ethnicity moderato	Educatio n	Partner moderato	Low- income	Professio nal	Match moderat
	status		r	moderato	r ^a	moderat	moderato	or

				r		ora	r ^a	
Learning								
opportunities								
Intercept	77.67*	72.38**	72.16**	72.66**	71.96**	73.57**	71.51**	76.11*
_	**	*	*	*	*	*	*	**
Time	-0.52^*	-0.33**	-0.33**	-0.63**	-0.36	-0.17	-0.42^*	1.13**
	**			*				
Work hour status								
Full time (FT)	0.68	0.68	0.7	0.73	3.01	0.28	-0.82	0.22
Not employed	-1.68*	-1.08^{*}	-0.46	-0.75**	-2.51	-0.58	-1.79**	-1.64
(NE)	**							
$FT \times time^a$	-0.19	-0.27^*	-0.26	-0.16	-0.56	-0.28	-0.32	0.22
NE × time ^a	0.41**	0.38*	0.43**	0.46*	-0.02	-0.41*	0.57**	0.24
Control variables								
Mother's age		0.36***	0.36***	0.36***	0.36***	0.33***	0.35***	0.28***
Education		6.01***	6.01***	5.51***	5.99***	5.78***	5.43***	4.55***
Ethnicity		-5.38**	-4.09**	-5.36**	-5.36**	-5.13 [*]	-5.34**	-4.66*
		*		*	*	**	*	**
Agreeableness		0.22***	0.22***	0.22***	0.22***	0.20***	0.22***	0.19**
Extroversion		0.10*	0.11*	0.11*	0.11*	0.10*	0.11*	0.10
Neuroticism		-0.04	-0.04	-0.04	-0.04	-0.03	-0.04	-0.01
Prebirth		2.45***	2.50***	2.37***	2.42***	2.23***	2.85***	2.78***
employment		2.13	2.50	2.57	2.12	2.23	2.03	2.70
Benefits of		-0.17*	-0.17*	-0.17*	-0.17*	-0.16	-0.15	-0.10
employment		0.17	0.17	0.17	0.17	0.10	0.13	0.10
Work		-0.08	-0.08	-0.08	-0.08	-0.07	-0.09*	-0.03
commitment		0.00	0.00	0.00	0.00	0.07	0.07	0.05
Depressive		-0.09**	-0.09**	-0.09**	-0.09**	-0.08*	-0.09**	-0.11*
symptoms ^a		0.07	0.05	*	*	*	*	**
Prebirth income		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1 Teom in meome		3**	3**	3**	3**	2*	2**	2*
Child gender		-0.97*	-0.99*	-0.97*	-0.97*	-1.00^*	-1.00*	1.55**
Child health ^a		-0.13	-0.12	-0.15	-0.12	-0.13	-0.12	0.1
Number of		-1.61**	-1.59**	-1.65**	-1.61**	-1.54^*	-1.61**	-2.60^*
children		*	*	*	*	**	*	**
Child-care quality		3.46***	3.46***	3.43***	3.46***	3.35***	3.41***	3.05***
Partner status ^a		2.97***	2.96***	3.06***	3.51*	2.66***	3.00**	3.82***
Low-income		2.71	2.70	3.00	3.31	-1.96	3.00	3.02
status ^a						1.70		
Professional							1.91**	
status ^a							1.71	
Match ^a								-0.03
Moderating								0.03
variables								
Moderator × FT			-0.45	-0.45	-2.77	1.2	-0.72	0.74
Moderator × NE			-3.34 *	-1.52	1.69	-1.13	0.72	2.98
IVIOUCIAIOI ^ INE		1	3.34	1.34	1.07	1.13	L	2.90

Moderator × time	0.002	0.73**	0.05	-0.62*	0.29	-0.08
Moderator × FT × time	-0.01	-0.16	0.33	-0.06	0.13	0.42
Moderator × NE × time	-0.29	-0.09	0.46	0.05		-0.47

Note: N = 1,364 for each model. Parameters are unstandardized regression coefficients. Provision of learning opportunities is centered at 54 months. FT indicates the contrast between full-time and part-time work hours. NE indicates the contrast between no employment and part-time work hours. ^a Time-varying variable. *p < .05. *** p < .01. **** p < .001.

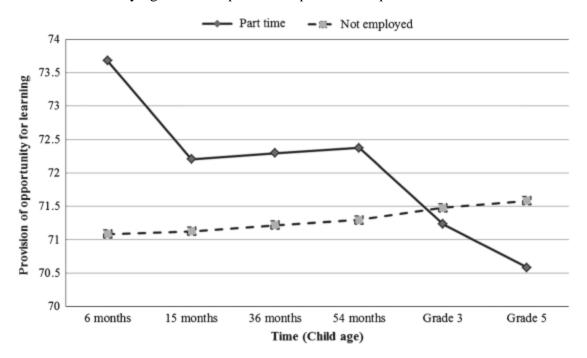


Figure 3. Maternal Nonemployment and Part-Time Work Hours by Child Age in Prediction of Maternal Provision of Child Learning Opportunities.

There was no significant difference in learning opportunity scores between mothers employed full time (M = 73.06) and mothers employed part time (M = 72.38, b = 0.68, ns). Although the main effect was not statistically significant, full-time work hour status (vs. part time) interacted with child age (b = -0.27, p < .05). Mothers employed full time provided more child learning opportunities than did mothers employed part time when children were young (see Figure 4; a 2.77% difference). There was little difference when children were in middle childhood. Thus, the hypotheses regarding maternal work hour status were supported when children were young and partially supported when children were in middle childhood.

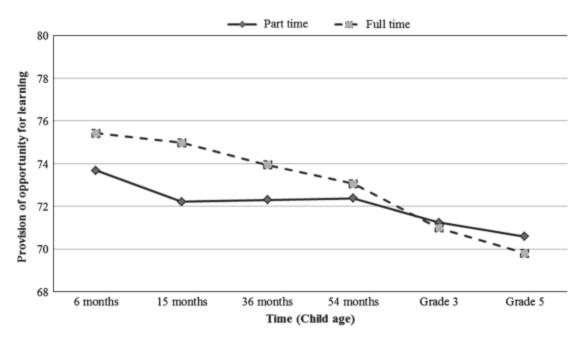


Figure 4. Maternal Part-Time and Full-Time Work Hours by Child Age Prediction of Maternal Provision of Child Learning Opportunities.

Moderators

Mothers' work hour status did not interact with maternal education, partner status, low-income status, professional status, or match in the prediction of maternal opportunities for learning. Work hour status (not employed vs. part time) did interact with ethnicity (b = -3.34, p < .05; see Table 4, Column 3). Nonemployment was associated with providing fewer opportunities for child learning than was part-time employment, but this was particularly salient for ethnic minority mothers (see Figure 5; a 3.80% difference).

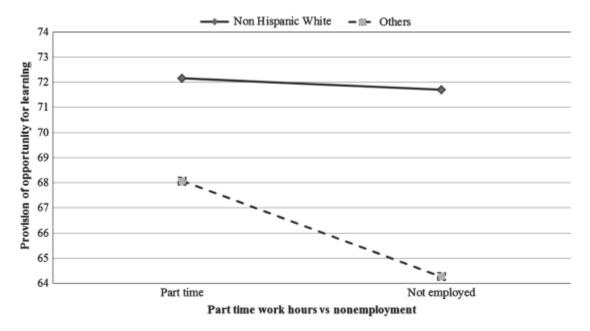


Figure 5. Maternal Nonemployment and Part-Time Work Hours by Ethnic Minority Status in Prediction of Maternal Provision of Child Learning Opportunities.

Controlling for maternal work hour status, educational attainment and low-income status each interacted with child age (i.e., time) in the prediction of maternal provision of child learning opportunity scores (figures available from first author). The difference between mothers who have a high school degree or less and other mothers was greater in middle childhood (a 9.44% difference) than in early childhood (a 3.27% difference). Mothers with more education had fairly stable opportunity provision scores as children aged, whereas mothers with less education had scores that declined as children aged. The same general pattern occurred for the low-income moderator across time. Mothers with low incomes had declining scores as children aged, whereas other mothers had fairly stable scores across time.

Discussion

In this study we examined the association between maternal work hour status (not employed, part time, and full time) and mothers' parenting from infancy through middle childhood. Observed sensitivity indexed mothers' emotional support provided to her child, whereas the provision of child learning opportunities indexed cognitive support. We examined two workhour contrasts: (a) not employed versus part time and (b) part time versus full time. Mothers who were employed part time had higher parenting scores than did mothers who were not employed, and this difference was more evident during early childhood than in middle childhood. Sensitivity scores did not differ for mothers employed full time and part time. Opportunities for child learning, however, were greater when mothers were employed full time when compared with part time, but only during early childhood. In addition to child age, maternal ethnic minority status and partner status interacted with maternal work hour status. Sensitivity scores varied little when compared among partnered mothers employed full and part time and single mothers employed full time. Sensitivity scores were lower, however, for single mothers employed part time. Ethnic minority status interacted with nonemployment such that the provision of learning opportunities was higher for ethnic minority mothers employed part time than for ethnic minority mothers who were not employed.

Theoretically, this study was based, in part, on role expansionist theory (Barnett & Hyde, 2001). From this perspective, mothers and their families profit from mothers occupying multiple roles. Barnett and Hyde's theorizing regarding the salutary benefits of multiple role occupancy is consistent with prior work by Marks (1977) and Crouter (1982). Applied to the work–family interface, we examined engaging in work and parenting roles in several ways. First, the comparison between nonemployment and part-time employment addressed occupying the parenting role versus occupying both parenting and employee roles (i.e., multiple roles). On the basis of the results from this contrast, we found support for the hypothesis that mothers and their children benefit from engaging in both parenting and paid work. Emotionally and cognitively supportive parenting was greater when mothers were employed part time than when they were

not employed. In addition to providing support for a central hypothesis of role expansionist theory, these findings are consistent with those from previous cross-sectional and prospective longitudinal studies (Brooks-Gunn et al., 2010; Horwood & Fergusson, 1999; Raver, 2003). Employment may offer resources and experiences that enhance supportive parenting, including enhanced social capital, reduced financial stress, greater life satisfaction, increased self-complexity, and improved problem-solving capacities (Barnett & Hyde, 2001; Perry-Jenkins & MacDermid Wadsworth, 2013). Future research would profit from more extensive investigations regarding why and how some mothers are able to take greater advantage of benefits offered by their work experiences than other mothers across the life course. Results from these investigations would shed needed light on life course issues related to agency and constrained choice.

These findings favoring employment over nonemployment did not support the role strain perspective that is based on G. S. Becker's (1981) thesis regarding asymmetrical role specialization in two-parent families or the scarcity hypothesis more generally. Instead, the findings suggest compatibility among the functions of income provision, emotionally supportive parenting, and cognitively supportive parenting within the mothering role. Whitehead (2008) described historical and current contexts in which researchers are examining the work–family interface and in which families and employers are making decisions, and the findings from the present study are consistent with the current context she discussed. The findings also suggest that, in addition to examining strategies associated with scaling back and reducing work hours, researchers need to examine how increasing maternal work hours also may address family needs and demands.

In addition to hypothesizing benefits from multiple role occupancy, in general, Barnett and Hyde (2001) also posited that there are limits to these benefits when role configurations are particularly demanding in terms of needed time and energy and inadequate supports. Work-family scholars have suggested that parenting young children may invoke some of these limits (Barnett & Gareis, 2006; Perry-Jenkins & MacDermid Wadsworth, 2013; Sweet & Moen, 2006; Zvonkovic et al., 2006). We tested this hypothesis, in part, by comparing parenting from infancy through middle childhood when mothers were employed part time and were not employed. Contrary to the idea of parenting young children as presenting a vulnerable time for mothers' multiple role occupancy, we found that the favor of part-time employment over nonemployment was more evident in early childhood than in middle childhood. This provides support for the idea that benefits garnered from employment may be helpful in alleviating some of the strain that may occur when one enacts the demanding role of parenting young children, and it may be evidence of work-to-family enrichment (Carlson & Grywacz, 2008) during a time when parenting supports are needed and valued. In addition to age of child, we also found a significant interaction between nonemployment (vs. part time) and ethnic minority status in the prediction of opportunities for child learning (but not sensitivity). Rather than there being upper limits to the benefits of combining mothering and intense employment, however, we found that the risk factor for ethnic minority mothers was not being employed. Gerstel and Sarkisian's (2006) contentions regarding the importance of employment for ethnic minority mothers were supported by these findings.

In addition to contrasting nonemployment and part-time employment, we examined multiple role occupancy and the work–family interface by contrasting full-time and part-time work hours. Number of work hours is a central structural aspect of the paid work role (Duxbury et al., 2008; Voydanoff, 2002). Several work–family scholars have suggested that part-time work is a unique work hour status and needs to be examined in research on the work–family interface (Buehler et al., 2011; Sliter & Elacqua, 2013). In their discussion of women's employment and multiple role occupancy, Barnett and Hyde (2001) did not address the issue of part-time employment in any detail. Therefore, it is unclear whether they were suggesting that full-time employment may offer greater benefits than part-time employment. Conceptually, the number of work hours may be better included within the construct of role quality rather than role occupancy and, as such, could be interacted with other aspects of role quality in future research.

Work-family scholars have addressed this work hour contrast from a variety of theoretical perspectives that acknowledge the multiple benefits of full-time employment over part-time employment (i.e., an expansionist perspective) as well as the adaptive, balancing function that part-time employment can serve when competing work and family needs become too difficult (i.e., a strain-and-coping perspective; Buehler et al., 2011; Jacobs & Gerson, 2004; Stier & Lewin-Epstein, 2000; Sweet & Moen, 2006; Warren, 2004). With two exceptions, we found no difference in sensitivity or provision of learning opportunity scores when mothers were employed full time and when mothers were employed part time. This is contrary to previous cross-sectional and prospective research that suggested a small favor toward part-time work hours (Brooks-Gunn et al., 2010; Buehler & O'Brien, 2011). The difference may have resulted from our use of a lagged, longitudinal design and the inclusion of an extensive set of covariates that controlled for mothers' preexisting employment beliefs and personality disposition. Thus, in general, we found little support for either the role expansionist or role strain theoretical perspectives when considering part-time versus full-time work hours. One exception that contextualizes this inference, however, is that there was a significant interaction between fulltime (vs. part-time) work hours and partner status. Mothers who did not have a partner living in their home had higher sensitivity scores when they were employed full time than when they were employed part time. This suggests that employment benefits to meet parenting needs and responsibilities may be particularly salient when one is single parenting. Given that there were few differences in sensitivity or provision scores between partnered mothers employed part time and partnered mothers employed full time, there also was little evidence to support the proposition that mothers' parenting may be compromised when engaging in intense employment in two-parent, heterosexual families (Becker, 1981). Perhaps these gender-based constraints would be more evident if the outcomes were work-to-family negative spillover or the distribution of household work rather than parenting. In addition, when 34 hours was used to define the upper limit for part-time employment (rather than 32), low-income mothers with young children who were employed part time (vs. full time) had lower sensitivity scores, suggesting a configuration that may be at increased risk for role strain.

On the basis of suggestions from work–family scholars, we also examined the contextualizing effects of maternal educational attainment (Ruhm, 2008), nonprofessional status (Higgins et al., 2000), and the match between actual and preferred work hours (Hakim, 2000). None of these interacted significantly with maternal work hour status in the prediction of either sensitivity or provision of child learning opportunities. As such, low educational attainment and nonprofessional status did not impose limits on the salutary benefits of multiple role occupancy. Some of the literature on maternal employment has emphasized the potential importance of maternal work hour preferences in understanding the work–family interface. Given that we assumed mothers' agency (even though constrained in ways) in reconciling actual and preferred work arrangements over time (Moen & Chesley, 2008), we did not expect to find significant interactions between match and actual work hour status. As an aside, we conducted preliminary analyses that focused on the potential contextualizing effects of two employment moderators: (a) scheduling flexibility and (b) nonstandard work hours. Neither significantly moderated the effects of maternal work hour status on parenting.

Our study makes several contributions to the literature on maternal employment and parenting, but it is not without limitations. We focused only on mothers' work–family interface. Future research should address relevant work–family interface predictors of fathers' parenting. The focus on part-time employment filled an important gap in this literature; however, there may be important variation within part-time work hours (i.e., few vs. several hours/week) that was not examined in the present study (Lleras, 2008). The use of time-varying predictors, extensive covariates, and a lagged longitudinal design helped control for the influences of relatively stable effects as well as potentially confounding variables (Curran & Bauer, 2011). Although this strengthens inferences about causal patterns, definitive conclusions about causal relations cannot be made on the basis of these correlational data. Finally, the examination of interactive effects across time may have had limited power due to relatively small cell sizes at particular assessment time points. The significant three-way interaction among work hour status, low income, and child age, however, suggests that the sample sizes were large enough to detect differences across time.

Research on maternal work hour status and parenting is important because the findings shape family decision making and challenge media conceptions regarding maternal employment (Barnett, 2004). We found support for a central proposition from role expansionist theory that suggests occupying multiple roles—in this case, maternal employment and parenting—provides benefits for families. We found very little evidence that assuming multiple roles results in role strain and compromised parenting, even when we examined patterns over time during early childhood. The fact that we examined patterns over time using a lagged, longitudinal design strengthens these conclusions.

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