

# Lenna Nepomnyaschy & Jane Waldfogel

## PATERNITY LEAVE AND FATHERS' INVOLVEMENT WITH THEIR YOUNG CHILDREN

### Evidence from the American Ecls–B

*Unlike many European countries, the US has no national paternity leave policy giving fathers the right to take paid time off work following the birth (or adoption) of a child. Despite this, prior research suggests that many fathers do take some time off work after a child is born. However, little is known about the determinants, circumstances or consequences of paternal leave-taking. In this paper, we use the first wave of data from the Early Childhood Longitudinal Study–Birth Cohort (ECLS–B), a new nationally representative panel study of over 10,000 children born in 2001, to examine these questions. We make use of ECLS–B questions asked directly of resident fathers pertaining to their participation in a range of child care-taking activities, as well as a rich set of measures about the father, mother and child. We find that the overwhelming majority of fathers take at least some leave at the birth of their child, but that the length of that leave varies a good deal. Our results also indicate that fathers who take longer leave are more involved in child care-taking activities nine months later.*

**Keywords** paternity leave; father involvement

Unlike many European countries, the US has no national paternity leave policy giving fathers the right to take paid time off work following the birth (or adoption) of a child, although about half of all new fathers have the right to unpaid leave under the federal Family and Medical Leave Act. Despite this, prior research suggests that many fathers do take some time off work after a child is born, although most men who take leave typically are off work for only a week (Hyde, Essex & Horton, 1993; Malin, 1994, 1998; Pleck, 1993). However, prior research sheds little light on the determinants, circumstances or consequences of paternal leave-taking in the US.

In this paper, we use the first wave of data from the Early Childhood Longitudinal Study–Birth Cohort (ECLS–B), a new nationally representative panel study of over 10,000 children born in 2001, to examine two sets of questions. First, we describe how much leave fathers are taking, and which characteristics of the father, mother and child are associated with the likelihood of taking paternity leave and with the length of leave. Next, we examine the extent to which leave-taking, and the amount of leave taken, are associated with fathers' involvement with their children when they are approximately nine months old, making use of ECLS–B questions asked directly of resident fathers pertaining to their participation in a range of child care-taking

activities, as well as a rich set of measures related to parents' demographic characteristics.

To briefly preview the results, we find that the overwhelming majority of fathers take at least some leave at the birth of their child, but that the length of that leave varies a good deal. We also find that fathers who take longer leave are more involved in child care-taking activities nine months after the birth, even after controlling for a host of father, mother and child characteristics, including measures of the father's commitment to child care-taking prior to the birth.

## Background

In contrast to the majority of industrialized countries, the US had no national maternity or paternity leave law until the passage of the Family and Medical Leave Act (FMLA) in 1993, relying instead on a patchwork of state laws and company policies (Han & Waldfogel, 2003; Kamerman, 2000; Waldfogel, 2001b). The FMLA requires employers with 50 or more workers to offer a job-protected leave of up to 12 weeks to qualifying employees who meet the requirements of the law and who need to be absent from work for family or medical reasons, including the need to take leave to care for a newborn or newly adopted child. The leave is unpaid, but employers who offer health insurance must continue to do so during the leave. Less than 50% of private sector workers are eligible for leave under the FMLA. Men are slightly more likely to be eligible than women; there are also differences by race and ethnic group (Cantor et al., 2001; Commission on Family and Medical Leave, 1996; Waldfogel, 2001a).

The passage of the FMLA led to a sharp increase in the share of men with access to paternity leave, as many medium- and large-sized firms had to offer paternity leave for the first time, to come into compliance with the law (Cantor et al., 2001; Waldfogel, 1999, 2001a). Yet we know little about the effect of that expanded coverage on men's leave usage. Only one study to date (Han & Waldfogel, 2003) has analyzed men's leave usage post-FMLA. That study found no significant effects of the passage of the FMLA on men's leave usage, but was limited in that it could only track unpaid leave usage. If the passage of the FMLA led to an increase in men using paid leave time (such as their vacation time or personal time) for paternity, the study would not have detected that change.

Studies conducted prior to the passage of the FMLA suggest that the majority of fathers took at least some leave following the birth of a child, but that most men who took leave were off work for only a week (Hyde et al., 1993; Malin, 1994, 1998; Pleck, 1993). We were unable to locate any more recent estimates of paternal leave-taking in a nationally representative sample in the US.<sup>1</sup> Thus, one contribution of the present study is that we provide estimates of the prevalence and length of paternal leave-taking in a quite recent and nationally representative sample.

One of the main rationales for the provision of paternity leave is that it is a means of facilitating father-child bonding, and increasing fathers' long-term involvement in child care-taking (Moss & Deven, 1999). Fathers have traditionally been the single most common source of non-maternal child care in the US (Casper, 1996; Casper & O'Connell, 1996; O'Connell, 1993; Presser, 1995), and numerous studies

highlight the importance of father involvement for children's cognitive and socioemotional outcomes (Averett, Gennetian & Peters, in press; Gottfried & Gottfried, 1998; Gottfried, Gottfried & Bathurst, 2002; Hoffman & Youngblade, 1999; Tamis-Lemonda & Cabrera, 2002).

It has been argued by proponents of paternity leave that extending leave for fathers would lead them to be more involved in the child's care in the future (see, for example, Malin, 1994, 1998). Although care for children continues to be highly gendered in most families, the argument is that at least some fathers might be willing to be more involved in childcare tasks than they are currently, but are discouraged from those tasks because mothers spend more time with the child after the birth and, hence, become the experts on that child's care. If this argument is correct, giving fathers the opportunity to spend more time at home right after the birth should result in them being more involved in child care-taking tasks in the future. Prior research has established that fathers are more involved in child care as mothers' work hours increase (Bonney, Kelley, & Levant, 1999; Deutsch, Lussier & Servis, 1993; Hoffman & Youngblade, 1999; NICHD Early Child Care Research Network [NICHD ECCRN], 2000), but less involved as their own hours increase (Bonney et al., 1999; Tanaka & Waldfogel, 2007). However, the links between fathers' early involvement in child care during a period of parental leave, and their later involvement in child care-taking, have not been studied. Thus, it is of interest to estimate whether fathers who take more leave post-birth are, in fact, more involved in child care-taking tasks at a later date, as we do here.

The questions we examine are also related to broader issues having to do with the gender division of labor in the home, gender differences in work-family arrangements, and how both of these may vary at different points in the life course (for an excellent overview of work by anthropologists, psychologists, sociologists, economists and demographers on these topics, see Bianchi, Casper & King, 2003). Understanding the role of individual, family and employer factors in predicting men's leave-taking at the birth of a new child, and how that leave-taking in turn affects later care arrangements given those individual, family and employer factors, may shed some light on those broader questions, as well as the specific questions we examine here.

However, establishing a causal link between leave-taking and subsequent care-taking is challenging. While it may be the case that giving fathers the opportunity to take more leave leads them to be more involved later, it is also possible that both leave-taking and care-taking are driven by some other factor. Fathers who take leave may simply be more committed fathers, and this may be reflected both in their leave-taking and subsequent care-taking. In a similar vein, men who take leave may be less committed employees, and this may be reflected both in their taking leave and in being more involved in child care-taking subsequently. Many men report that they do not take leave even if eligible, for fear it may hurt their careers (Conference Board, 1994); others, particularly those who are low-income, will not take leave if it is unpaid (Cantor et al., 2001). Thus, men who take leave, or take longer leave, may be a selected group who are less concerned about work and more willing to invest in family time, or more able to afford unpaid leave. Without an instrument that is external to the father and yet affects his leave-taking (or an experiment that randomly

assigns some fathers to take leave and others to not take leave), we cannot establish causality with certainty.

The approach we take in this paper is to control for as many potentially confounding variables as possible, in the hope of mitigating as much of the selection bias as we can. We are fortunate to have in the ECLS–B a rich set of father, mother and child characteristics that we can control for, as well as two measures of the father’s pre-birth commitment, whether he attended birth classes and whether he was present in the delivery room during the birth. To the extent that these variables control for pre-existing differences between fathers that are correlated with leave-taking and care-taking, they will help control for some of the selection bias. In addition, we conduct some supplementary analyses using propensity score-matching, a method that is becoming widely recognized as a way to control for potential selection bias (e.g. Shonkoff & Phillips, 2000). Nevertheless, we cannot be sure that we have controlled for all pre-existing differences, and therefore must caution that our estimates may not be causal.

## Data and methods

This paper is based on data from the first wave of the ECLS–B, a nationally representative sample of over 10,000 children born in the US in 2001. Births were sampled from Vital Statistics records, and consist of children born in 2001 who were alive at the baseline interview. Baseline parent interviews and child assessments are done when the child is approximately nine months old, and then repeated at 24 months, at pre-school entry (approximately four years old) and kindergarten (see Bethel, Green, Kalton & Nord, 2005, for a detailed description of the study design). The goal of the ECLS–B was to examine the individual, family and community level factors that are associated with children’s health and developmental trajectories. The nine-month (baseline) ECLS–B consists of: a computer-assisted personal interview (CAPI) administered to the parent respondent (who, in 99% of the cases, is the biological mother); several direct assessments of the child’s development and caregiver–child interaction patterns (such as Bailey Short Form and physical measurements); and self-administered questionnaires for the resident father or male guardian, as well as the non-resident father (if permission is granted by the mother and if he can be located).

The current paper examines fathers’ leave-taking at the time of the birth and its association with fathers’ subsequent involvement with their children. By definition, only fathers who were working at the time of the birth could have taken leave, and we know from prior research that subsequent father involvement is strongly correlated with fathers’ work status and work hours, as well as whether they actually reside in the home (see, for example Kiernan, *in press*). Therefore, we focus on two-parent families with resident fathers who were working at both the time of the birth and at the nine-month survey. Of the 10,688 children sampled at baseline, 7,241 had resident fathers who were employed both at the time of the birth and at the nine-month survey.

We imposed several other sample restrictions. The ECLS–B oversamples twins, and includes 795 twin pairs in the sample. In order to have one focal child per family,

yet retain children from multiple births, we randomly selected one twin from each pair and excluded the other one from the analyses (resulting in a loss of 795 children from the sample). In addition, we excluded 1,766 fathers who either did not complete the resident father questionnaire, in which the father involvement outcomes were assessed, or reported that they had not lived with their child since the birth. We also excluded 217 fathers who had missing data on any of the outcome variables. Finally, another 21 observations were dropped because of missing values on covariates for which fewer than 10 fathers had missing data, resulting in a final analysis sample of 4,638. In order to minimize further sample loss, we constructed dichotomous indicators for missing data on covariates for which there were at least ten cases with missing data and included these missing flags in the regressions.

Our final sample consists of 4,638 employed resident fathers who were working both before the birth and at the time of the nine-month survey, and who resided with the child throughout that period. Because the determinants of leave-taking, and the associations between leave-taking and subsequent father involvement, may differ in families where the mother is also working, we conduct a separate set of analyses for a subsample of 2,249 dual-earner families, where both the mother and father were working before the birth and at the time of the nine-month survey. We note that because we exclude fathers who were not employed both before and after the birth, we are likely to be excluding more disadvantaged fathers, and thus our results may not be as generalizable to them. However, the sample we analyze is the one for which we can measure both leave-taking and post-birth employment behaviour, and is also the sample for which leave-taking and its effects are most relevant.

## Measures

Fathers' involvement with their nine-month-old children is our main outcome of interest, and is examined through several measures taken from the resident fathers' self-administered questionnaire.<sup>2</sup> Fathers are asked how often they diaper, feed, dress and bathe their children, with possible responses of: more than once per day; once per day; few times per week; few times per month; rarely; and never. Based on the distribution in our data, we constructed dichotomous measures for father involvement for each one, identifying fathers in roughly the top half of the distribution for involvement in each activity. This meant that we coded fathers to 'yes' for involvement in: diapering and feeding, if they do these things more than once per day (50% and 47% of the sample, respectively); dressing, if they do this at least once per day (44% of the sample), and bathing, if they do this at least a few times per week (56% of the sample) (table 1). Fathers were also asked how often they get up with their child when he/she wakes up at night, with possible responses of: always; often; sometimes; rarely; or never. Fathers were coded to 'yes' on this measure if they responded that they get up always or often with their child (39% of the sample) (table 1). In addition to these median splits, we also investigated two alternative ways of handling these variables. We illustrate this using the diapering variable. First, we converted the diapering responses into a measure of how many days per month the father was involved in diapering, and estimated models using ordinary least squares

(OLS) regression. Second, we retained the original categories of the diapering variable and estimated models using ordered logistic regression.

Our independent variable of interest is fathers' leave-taking. Mothers are asked (in the nine-month baseline survey) whether their spouse or partner took any time off work at the time of the child's birth and the number of weeks taken, if any. We create a dichotomous indicator for any leave taken and a categorical variable for number of weeks for all fathers (none, less than one week, one week, or two or more weeks).

We include a rich set of covariates that may be related to both leave-taking and fathers' involvement with their children. We control for the father's age (measured as number of years and a squared term), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, Asian, and non-Hispanic other race), education (less than high school, high school diploma, some college, and bachelor's degree or better), whether the parents were cohabiting at the birth (vs. married), number of other children in the household (one, two, and three or more), the father's General Social Survey occupational prestige score from his current job (low, middle and high prestige), and the number of hours worked per week at his current job. We also control for the father's annual salary level, as reported in the nine-month interview. Because this variable is potentially endogenous, we repeated all our analyses without the income control and found the results were substantially unchanged.

We also add two pre-birth indicators of fathers' commitment to parenting, whether he attended birth classes with the mother, and whether he was in the delivery room when the child was born. Controlling for these pre-birth measures is important, because fathers who take leave, or more weeks of leave than the norm, may differ from other fathers in their pre-existing level of commitment to child care-taking. If we do not control for this pre-existing commitment, our estimates of the effects of leave-taking, and weeks of leave, could be biased.

Several characteristics of the child that may affect leave-taking or father involvement are considered: the child's sex; whether the child was part of a multiple birth; whether the child was low birthweight (< 2500 grams); and the child's age at the nine-month interview (in months). Next, we add a number of mother characteristics that may affect leave-taking or father involvement: her age (in years and a squared term); education (coded in the same way as the father's); whether she worked in the year prior to the birth; her occupational prestige score from her current job (low, middle and high prestige, and an additional category for mothers who were not working at the nine-month survey); and the number of hours per week worked at current job.

Finally, we add two geographic measures: the region of the country where the household was sampled (Northeast, Midwest, South and West), and whether it is in an urban area. These variables may capture regional or local variation in paternity leave-taking, or in expectations about father involvement.

## Analyses

First, we present descriptive statistics for all the included measures discussed above for the entire sample and for the sample stratified by whether the father took leave. We present figures separately for the full sample of 4,638 families with an employed

resident father, and for the subsample of 2,249 dual-earner families in which both the mother and father are employed. Statistically significant differences on mean characteristics by leave-taking are computed with t-tests for dichotomous and continuous variables, and by chi-square tests for categorical variables. Next, we employ multivariate logistic regression to analyze which characteristics of fathers, mothers and children are associated with fathers' leave-taking. We do this for whether the father took any leave, and for whether he took two or more weeks of leave. For this analysis, we include only variables that were measured before or at the time of the birth, with the exception of parents' occupational status and the father's annual salary, both of which are only available for the current job reported at the nine-month survey (we assume that occupational prestige and annual salary are somewhat stable and thus treat them as pre-birth characteristics). For mothers, we only assign occupational prestige scores for those who were working prior to the birth (thus, we have an additional category for not working prior to the birth). We do not control for mother's annual salary, as that is more likely than the father's to have changed post-birth. We again present findings for both the full sample of families and for dual-earner families.

Finally, we estimate a set of multivariate logistic regressions for each of the five father involvement outcome measures, controlling for all the previously discussed covariates, as well as our categorical measure of leave-taking: whether the father took less than one week, one week, or two weeks or more of leave, with no leave as the reference category. For these analyses, we also include measures of the parents' current employment status (both parents' occupational prestige from current job, and hours worked per week at current job), as well as the father's current annual salary. These analyses are performed for the entire sample, and for the subsample of dual-earner families. For each outcome, we present results from four additive models, but only show coefficients on the leave-taking measures (complete results for the other covariates available upon request). The first model presents the unadjusted association between leave-taking and father involvement; the second model adds controls for father, child and geographic characteristics; the third model adds mother characteristics; and the final model adds the two indicators of pre-birth father commitment (these coefficients are also shown). All analyses are performed using Stata 9 SE statistical software package (StataCorp, 2005). For significance testing, Stata's SVY commands were applied to adjust for complex survey design effects. Figures presented in tables are odds ratios (with z-statistics in parentheses).

As a robustness check, we estimate several additional models, described below. Results from these supplemental models are not shown, but are available on request.

## Findings

Table 1 presents descriptive statistics for all families (and for dual-earner families), first for the full samples and then stratified by leave-taking. An overwhelming majority of fathers (89%) took some time off work after the birth of their child. However, most fathers did not take very much time off. Of those fathers who took

**TABLE 1** Sample characteristics by father's leave-taking for two samples of families with working, resident fathers

	<i>Full sample</i>			<i>Dual-earner couples sample</i>		
	<i>All</i>	<i>Took leave</i>	<i>No leave</i>	<i>All</i>	<i>Took leave</i>	<i>No leave</i>
<i>N</i>	4638	4108	530	2249	1994	255
Leave-taking						
Took leave	89	100	0	89	100	0
Number of weeks of leave taken	1.5	1.7		1.6	1.8	
<1 week	20	22		18	20	
1 week	37	42		35	40	
2 weeks or more	32	36		36	40	
Father involvement outcomes						
Diapered more than once/day	50	51	45*	59	60	56**
Fed more than once/day	47	47	46	55	56	53
Dressed at least once/day	44	44	41	52	52	49
Bathed at least a few times/week	56	56	52	61	61	60*
Gets up at night always or often	39	39	36	43	44	38
Father's sociodemographics						
Age	32.1	32.2	31.9	32.5	32.5	32.4
Non-Hispanic white	58	59	49***	62	63	56**
Non-Hispanic black	7	7	9	9	9	9
Hispanic	14	13	23	11	10	17
Asian	15	16	14	13	13	13



Other race/ethnicity	5	5	5	5	5	5
US-born	73	74	66***	78	79	72***
Less than high school education	13	12	23***	10	9	18**
High school diploma/GED	21	20	25	22	22	23
Some college	28	28	25	30	30	24
Bachelor's degree or better	38	39	27	39	39	35
Cohabiting at birth vs. married	12	11	18***	11	11	13
One child	37	37	37*	40	40	40
Two children	36	37	30	37	38	31
Three or more children	27	26	33	23	22	29
Annual salary (\$000s)	50.5	51.7	41.7***	48.9	49.5	44.1*
Low occupational prestige score	43	41	55***	41	41	47*
Middle occupation prestige score	35	36	30	37	37	33
High occupational prestige score	22	23	15	22	22	20
Hours/week worked at current job	46.3	46.2	46.8	45.7	45.6	46.1
Child characteristics						
Male child	52	51	54	52	52	51
Child's age in months	10.4	10.4	10.4	10.4	10.4	10.4
Multiple birth	11	11	9	10	10	8†
Low birthweight (<2500 g)	21	21	20	21	21	19
Mother's characteristics						
Age	29.9	30.0	29.4*	30.6	30.6	30.3
Same race/ethnicity as father	84	84	84	83	83	82
Less than high school	16	15	24***	10	9	16**
High school diploma/GED	19	18	24	17	16	20

**TABLE 1** (Continued)

	<i>Full sample</i>			<i>Dual-earner couples sample</i>		
	<i>All</i>	<i>Took leave</i>	<i>No leave</i>	<i>All</i>	<i>Took leave</i>	<i>No leave</i>
Some college	28	29	23	30	31	25
Bachelor's degree or better	38	39	29	43	44	39
Worked in 12 months prior to birth	73	73	73*	100	100	100
Currently not employed	47	47	48	0	0	0
Low occupational prestige score	17	16	20***	29	29	36*
Middle occupation prestige score	21	22	17	42	43	34
High occupational prestige score	15	15	15	29	29	30
Hours/week at current job (if any)	33.7	33.5	35.2*	34.1	33.9	35.5*
Father commitment indicators						
Attended birth classes	42	44	33***	47	48	39**
Was present in delivery room	94	95	86***	95	96	87***
Geographic characteristics						
Northeast	16	16	17	17	16	17
Midwest	25	25	24	29	29	31
South	33	33	34	32	33	31
West	25	26	24	22	22	21
Urban area	73	73	71	71	72	70

†p, 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

T-tests were used to compute statistically significant differences for continuous and dichotomous variables, while chi-square tests were used for categorical variables (parents' education, occupational prestige, father's race/ethnicity, number of children, and region of the country).

any time off, 64% took one week or less (22% less than one week, and 42% one week), and only 36% took two or more weeks off work (second column).

Turning now to father involvement when children are approximately nine months old, about 50% of the fathers in the sample reported diapering and feeding the child more than once per day, and dressing the child at least once per day, 56% reported bathing the child a few times or more per week, while 39% reported getting up with the child at night always or often. Fathers who took leave were significantly more likely to regularly diaper the child than fathers who did not take leave, but that is the only significant difference in unadjusted father involvement outcomes by leave-taking.

Because the fathers in our sample are constrained to be consistently employed (prior to birth, and at nine months after birth), and to have lived with the mother and child since the birth, they are a relatively more advantaged group than would be the case in a nationally representative sample of all fathers of young children. Almost 40% of them have a college degree or better, 15% of the fathers are Asian, 7% are non-Hispanic black, and 12% are unmarried (cohabiting). Fathers work 46 hours per week on average at their current job, and have an average annual salary of over \$50,000. For nearly 40% of fathers, the focal child is the only child in the household. Nearly 40% of the mothers also have a college degree or better; and 73% of them worked in the year prior to the birth, but only 53% were working (either full- or part-time) when the child was nine months old. Those who were currently employed reported working 33.7 hours per week at their job. Fewer than half (42%) of fathers reported attending birth classes with the mother, but nearly all fathers (94%) were in the delivery room when the child was born.

Comparing fathers who took leave and those who did not, fathers who took leave were significantly more likely to be non-Hispanic white, to be US-born, and to have attended birth classes and been in the delivery room. Fathers who took leave earned approximately \$10,000 more annually than fathers who did not. Fathers who took leave were also significantly less likely to be Hispanic, to have not completed high school, and to have low-prestige occupations. Mothers living with fathers who took leave were older, were better educated, were less likely to be in low-prestige occupations, and worked fewer hours per week when the child was nine months old than those living with fathers who did not take leave. There were no significant differences in child characteristics between those whose fathers took leave and those whose fathers did not.

The characteristics of dual-earner families were quite similar, with a few exceptions. These fathers were somewhat more likely to be involved in child care-taking tasks at the nine-month survey, and took slightly longer leave, while the mothers were somewhat better educated than parents in the full sample. As in the full sample, fathers in dual-earner families who took leave are more involved in diapering than fathers who did not take leave; they are also slightly more likely to be involved in bathing the child.

Table 2 presents results from logistic regressions predicting leave-taking for the full sample of families with employed fathers, as well as the dual-earner subsample in which both the mother and father worked prior to the birth and at the nine-month survey. We begin with models predicting any leave-taking (first two columns). In the full sample, non-Hispanic black and Hispanic fathers both have about 40% lower odds of taking leave than do non-Hispanic white fathers, while those in middle and high

**TABLE 2** Logistic regression of father's leave-taking for two samples of parents

	<i>Any leave-taking</i>		<i>Two or more weeks of leave</i>	
	<i>All families</i>	<i>Dual-earner couples</i>	<i>All families</i>	<i>Dual-earner couples</i>
Father's age	1.08 (1.11)	1.39** (2.73)	0.95 (0.72)	0.95 (0.43)
Age-squared	0.999 (1.23)	0.995** (2.86)	1.001 (0.78)	1.00 (0.27)
Non-Hispanic black	0.62* (2.17)	0.64 (1.52)	1.20 (1.25)	1.25 (0.98)
Hispanic	0.59* (2.05)	0.61 (1.32)	0.98 (0.14)	0.995 (0.02)
Asian	0.94 (0.28)	1.51 (0.99)	1.23 (1.04)	1.22 (0.63)
Non-Hispanic other	0.82 (0.49)	0.54 (1.07)	1.16 (0.57)	0.82 (0.60)
US-born	1.35 (1.50)	1.72† (1.82)	1.53** (2.95)	1.34 (1.25)
High school graduate (<high school = ref.)	1.26 (1.15)	1.31 (0.75)	1.38† (1.74)	0.96 (0.15)
Some college	1.32 (1.37)	1.30 (0.76)	1.43† (1.86)	1.08 (0.28)
Bachelor's degree or better	1.12 (0.44)	0.89 (0.29)	1.23 (0.89)	1.11 (0.36)
Annual salary (\$000s)	1.00 (.61)	.999 (0.48)	1.00 (1.17)	1.00 (0.89)
Middle occupational prestige (low = ref.)	1.41* (2.23)	1.35 (1.26)	1.28* (2.12)	1.29† (1.75)
High occupational prestige	1.77** (3.02)	1.27 (0.93)	1.68*** (3.48)	1.27 (1.16)
Cohabiting at birth	0.997 (0.02)	1.88* (2.08)	0.87 (0.89)	1.04 (0.17)
Two children (one child = ref.)	1.03 (0.20)	0.99 (0.07)	0.75** (2.62)	0.73* (2.24)
More than two children	0.72† (1.82)	0.74 (1.19)	0.60*** (3.83)	0.52*** (3.54)
Midwest (Northeast = ref.)	1.37 (1.34)	1.17 (0.55)	0.83 (1.07)	0.89 (0.57)
South	1.09 (0.38)	1.15 (0.56)	0.998 (0.01)	1.08 (0.40)
West	1.20 (0.81)	1.25 (0.79)	1.32 (1.64)	1.31 (1.18)

**TABLE 2** (Continued)

	<i>Any leave-taking</i>		<i>Two or more weeks of leave</i>	
	<i>Dual-earner</i>		<i>Dual-earner</i>	
	<i>All families</i>	<i>couples</i>	<i>All families</i>	<i>couples</i>
Urban	1.25 (1.40)	1.22 (1.03)	1.31* (2.26)	1.63** (3.10)
Male child	0.95 (0.45)	1.14 (0.82)	0.94 (0.73)	0.93 (0.55)
Multiple birth	1.31 (1.21)	1.38 (1.03)	1.47** (3.08)	1.95** (3.12)
Low birthweight	1.17 (0.91)	1.53† (1.68)	1.37** (2.89)	1.42* (2.01)
Mother's age	1.15 (1.38)	1.22 (1.23)	1.04 (0.47)	1.16 (1.33)
Mother's age-squared	0.998 (1.31)	0.997 (1.20)	1.00 (0.03)	0.999 (0.75)
Same race as father	0.93 (0.32)	0.73 (1.30)	1.00 (0.03)	1.09 (0.46)
High school graduate (<high school =ref.)	0.73 (1.58)	0.67 (1.37)	0.98 (0.14)	0.85 (0.64)
Some college	1.04 (0.23)	1.29 (0.77)	1.15 (0.65)	0.91 (0.37)
Bachelor's degree or better	1.10 (0.35)	1.57 (1.17)	1.00 (0.01)	0.79 (0.89)
Mother-middle occupation prestige	1.20 (0.84)	1.21 (0.81)	1.02 (0.17)	1.10 (0.85)
High occupational prestige	0.74 (1.14)	0.72 (1.07)	0.78 (1.47)	0.82 (1.08)
Mother not working prior to birth	1.05 (0.25)		0.76* (2.09)	
<i>N</i>	4638	2249	4638	2249

Figures are odds ratios and (z-statistics).

†p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

occupational prestige jobs have 41% and 78%, respectively, higher odds of taking leave than those in low prestige jobs. Fathers with more than two children are less likely to take leave than those for whom this was the first child. Results for the dual-earner subsample indicate that fathers who are older are more likely to take leave, but it appears that this relationship is U-shaped, with fathers who are much older being less likely to take leave. In addition, US-born fathers, and those who were cohabiting with the mother (as opposed to married), in dual-earner families were more likely to

take leave than those who were not. Finally, fathers in dual-earner families who had low birthweight children had 54% greater odds of taking leave than fathers of normal birthweight children.

As discussed earlier, fathers vary not just in whether they took any leave, but also in the length of leave taken, with only about a third of all fathers taking two or more weeks of leave (table 1). Therefore, we also estimated logistic regression models predicting whether fathers took two or more weeks of leave for the full sample, as well as the dual-earner subsample. The results, shown in the second set of columns in table 2, suggest that the determinants of longer leave-taking are somewhat different than the determinants of any leave-taking. Here we find that the likelihood of taking two or more weeks of leave is associated with fathers being US-born, better educated, and in middle- or high-prestige jobs. Having two children, or more than two children, reduces the likelihood of taking two or more weeks of leave, as does having a mother who was not working before the birth. At the same time, having a child who is low birthweight or part of a multiple birth raises the likelihood of taking two or more weeks of leave. The results for dual-earner couples are similar with one exception: the father's level of education is not an important predictor of the length of leave taken.

Although in the raw data fathers who took leave had higher annual earnings, fathers' annual salary is not associated with taking leave, or with taking longer leave for either sample of parents, when we control for all other variables. This does not mean that there are not socioeconomic (SES) differences in who takes leave, but rather that the father's occupational prestige ranking is more predictive than his salary.

Table 3 examines the relationship between leave-taking and our first measure of father involvement, whether the father reports diapering the child more than once per day (see Appendix table 1 for full models). Our measures of leave-taking capture whether a father took less than one week of leave, one week, or two or more weeks (the reference category is a father who took no leave). The top panel presents results for all families, while the bottom panel is for dual-earner families.

In model 1, fathers who took two or more weeks of leave have 89% greater odds of regularly diapering the child than those who took no leave, controlling for no other characteristics. Fathers who took one week of leave have 29% greater odds of diapering the child than those who took no leave, but this is only marginally significant (at  $p=0.085$ ). After adding father, child and geographic characteristics to the regression model (column 2), and mother characteristics (column 3), these relationships remain unchanged.

As discussed earlier, fathers who take longer leave may be more committed to child care-taking in the first place, and, thus, the link between longer leave-taking and more involvement at nine months may not be causal. To control for pre-existing differences in commitment to child care-taking, we add in our final model two controls for father commitment – whether he attended birth classes, and whether he was present in the delivery room during the birth. Both indicators of father commitment are significant predictors of diapering, as would be expected. However, after adding these two measures (model 4), fathers who took two or more weeks off work still differ significantly from those who took no leave: they have 75% greater

**TABLE 3** Effects of number of weeks of paternity leave taken on whether father diapers child more than once per day, controlling for a variety of characteristics

	<i>Diaper &gt; once/day</i>			
	1	2	3	4
<b>For all families, N = 4638</b>				
Weeks of leave (no leave = ref.)				
<1 week	1.05 (0.32)	1.06 (0.40)	1.09 (0.57)	1.03 (0.18)
1 week	1.29† (1.74)	1.29† (1.72)	1.33† (1.91)	1.25 (1.42)
2+ weeks	1.89*** (4.77)	1.93*** (4.76)	1.90*** (4.44)	1.77*** (3.94)
Father/child/family characteristics		✓	✓	✓
Mother characteristics			✓	✓
Father commitment measures				✓
Attended birth classes				1.29* (2.37)
Present in delivery room				1.81** (3.42)
<b>For dual-earner couples, N = 2249</b>				
Weeks of leave (no leave = ref.)				
<1 week	1.22 (1.16)	1.22 (1.04)	1.24 (1.21)	1.11 (0.58)
1 week	1.46* (2.32)	1.42† (1.99)	1.43* (2.05)	1.26 (1.36)
2+ weeks	2.03*** (4.25)	2.06*** (4.26)	2.05*** (4.36)	1.86*** (3.86)
Father/child/family characteristics	✓	✓	✓	✓
Mother characteristics		✓	✓	✓
Father commitment measures			✓	✓
Attended birth classes				✓ 1.58**
Present in delivery room				(2.99) 2.29** (3.17)

Figures are odds ratios and (z-statistics).

†p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

odds of reporting diapering the child more than once per day. The odds ratio for taking one week of leave remains positive but becomes insignificant at  $p = .164$ .

The results for dual-earner families, shown in the bottom panel of table 3, follow a very similar pattern. Again, the father taking leave for two or more weeks at the

time of the birth is strongly associated with his being involved in diapering nine months later; this result holds up even after controls are added for father, child, and family characteristics, mother characteristics, and measures of the father's commitment pre-birth.

Table 4 presents results for the other four father involvement outcomes (regular feeding, dressing, bathing, and getting up at night with the child). The results across these outcomes are quite similar to those already discussed. Fathers who took two or more weeks of leave at the time of the birth are significantly more involved in direct care tasks with their children nine months post-birth than are fathers who took no leave, even after controlling for a host of parent and child characteristics, including indicators of fathers' commitment to parenting prior to the birth (the only exception is that fathers who took two or more weeks of leave are not significantly more likely to get up at night with the child at nine months once controls for father commitment are added). In contrast, fathers who took less than two weeks off are generally no more likely to engage in these tasks than fathers who did not take time off. The results are quite similar for dual-earner families as well, with one exception: for dual-earner couples, having taken two or more weeks of leave does not increase the likelihood of fathers regularly bathing the child, while in the full sample it does. Finally, fathers who were in the delivery room at the time of the birth are more likely to be involved across all outcomes, while those who attended birth classes are more likely to be involved for some (dressing and bathing), but not for others (feeding and getting up at night).

### Supplementary analyses

We estimated a number of supplementary models to test the robustness of our results (these supplementary results are not shown, but available from authors on request). First, we included an indicator for whether the mother reported ever breastfeeding the child. If the mother was breastfeeding, the father would perhaps be less likely to feed the child or get up at night with the child. In results not shown, we found that breastfeeding was negatively associated with the likelihood that fathers diaper, feed and get up at night with their child; however, including this variable in the models did not change the magnitude or statistical significance of the effects of fathers' leave-taking for any of these outcome variables.

Next, we used propensity score-matching in order to further minimize differences between fathers who did and did not take paternity leave. In these models, fathers who did and did not take leave are matched based on their observable characteristics. Using propensity score-matching did not change the associations between fathers' leave-taking and the child care-taking tasks examined here.

Next, we included a number of variables related to fathers' job characteristics that may be potential confounders in the relationship between leave-taking and father involvement. We included indicators for whether fathers were eligible, through their employer, for flexible hours, sick leave, child care assistance, and dental insurance, and whether fathers worked standard (day shift) or non-standard hours (all other



**TABLE 4** Effects of taking leave on four other measures of father involvement, controlling for a variety of characteristics

	<i>Feed &gt;once/day</i>				<i>Dress at least once/day</i>			
	1	2	3	4	1	2	3	4
<b>For all families, N = 4638</b>								
Weeks of leave (no leave = ref.)								
<1 week	0.88 (0.83)	0.95 (0.33)	0.97 (0.22)	0.92 (0.53)	0.93 (0.42)	0.98 (0.13)	1.01 (0.08)	0.95 (0.30)
1 week	0.87 (1.13)	0.99 (0.09)	1.02 (0.14)	0.96 (0.34)	1.12 (0.90)	1.20 (1.39)	1.26† (1.77)	1.17 (1.19)
2+ weeks	1.17 (1.30)	1.46** (3.13)	1.42** (2.77)	1.34* (2.25)	1.60*** (3.57)	1.80*** (4.16)	1.78*** (4.11)	1.66*** (3.62)
Father/child/family characteristics		✓	✓	✓		✓	✓	✓
Mother characteristics			✓	✓			✓	✓
Father commitment measures				✓				✓
Attended birth classes				1.10 (0.79)				1.29* (2.30)
Present in delivery room				1.71* (2.51)				1.81** (2.94)
<b>For dual-earner couples, N = 2249</b>								
Weeks of leave (no leave = ref.)								
<1 week	1.09 (0.40)	1.12 (0.51)	1.17 (0.72)	1.04 (0.19)	1.05 (0.21)	1.12 (0.42)	1.21 (0.73)	1.07 (0.28)
1 week	1.10 (0.58)	1.18 (0.88)	1.22 (1.09)	1.08 (0.45)	1.23 (1.25)	1.28 (1.24)	1.33 (1.44)	1.17 (0.82)

**TABLE 4** (Continued)

	<i>Feed &gt; once/day</i>				<i>Dress at least once/day</i>			
	1	2	3	4	1	2	3	4
2+ weeks	1.34† (1.77)	1.60** (2.58)	1.61** (2.69)	1.46* (2.18)	1.68*** (3.39)	1.80** (3.08)	1.82** (3.20)	1.65** (2.65)
Father/child/family characteristics		✓	✓	✓		✓	✓	✓
Mother characteristics			✓	✓			✓	✓
Father commitment measures				✓				✓
Attended birth classes				1.23 (1.34)				1.43* (2.14)
Present in delivery room				2.49*** (4.08)				2.45*** (3.90)
	<i>Bathe at least few times/week</i>				<i>Get up at night always/often</i>			
	1	2	3	4	1	2	3	4
<b>For all families, N = 4638</b>								
Weeks of leave (no leave = ref.)								
<1 week	0.85 (1.08)	0.90 (0.69)	0.92 (0.56)	0.87 (0.90)	0.89 (0.65)	0.99 (0.06)	1.02 (0.09)	0.95 (0.28)
1 week	1.05 (0.35)	1.14 (0.75)	1.15 (1.02)	1.09 (0.61)	0.94 (0.43)	1.07 (0.43)	1.11 (0.63)	1.02 (0.10)
2+ weeks	1.34* (2.48)	1.47** (3.25)	1.48*** (3.39)	1.40** (2.91)	1.16 (1.02)	1.37* (2.05)	1.36* (1.98)	1.27 (1.48)

Father/child/family characteristics		✓	✓	✓		✓	✓	✓
Mother characteristics			✓	✓			✓	✓
Father commitment measures				✓				✓
Attended birth classes				1.39***				1.09
				(4.15)				(0.86)
Present in delivery room				1.47*				2.15**
				(2.12)				(3.36)
<b>For dual-earner couples, N = 2249</b>								
Weeks of leave (no leave = ref.)								
< 1 week	0.79	0.81	0.85	0.80	1.10	1.16	1.23	1.08
	(1.11)	(0.94)	(0.73)	(0.98)	(0.45)	(0.67)	(0.94)	(0.36)
1 week	0.98	0.99	1.00	0.93	1.12	1.14	1.20	1.06
	(0.08)	(0.05)	(0.00)	(0.31)	(0.59)	(0.64)	(0.88)	(0.26)
2+ weeks	1.24	1.31	1.32	1.24	1.50*	1.55*	1.62*	1.46†
	(1.24)	(1.48)	(1.46)	(1.11)	(2.11)	(2.16)	(2.35)	(1.90)
Father/child/family characteristics		✓	✓	✓		✓	✓	✓
Mother characteristics			✓	✓			✓	✓
Father commitment measures				✓				✓
Attended birth classes				1.50**				1.19
				(3.20)				(1.32)
Present in delivery room				1.50				2.56**
				(1.47)				(2.85)

shifts). While several of these variables were predictive of whether fathers took leave, they did not alter the associations between leave-taking and father involvement.

Although we control for fathers' annual salary, and both parents' education and occupational prestige in our main models, these models do not address the possibility that the observed associations between leave-taking and father involvement are being driven by fathers at higher levels of SES, and may not be as pertinent for fathers at lower levels of SES. To examine this question, we used the ECLS-B's composite measure of SES, which includes standardized measures of both parents' education, occupational prestige, and household income, to divide our sample into tertiles (thirds of the distribution), representing low, medium and high SES. We then ran fully interacted models of father involvement on weeks of leave by SES status. In these models, we found no significant association between leave-taking and later father involvement for the low SES group, but a strong and significant association for both the middle and high SES groups, indicating that our results are being driven by the middle and high SES groups.

Finally, we examined two alternate measures of our outcome variables. Collapsing how often fathers report participating in child-care taking activities into binary variables representing whether they are above or below the median is useful as a way of summarizing the data, but may result in loss of information and variation. The first alternate measure converts the responses for how often fathers diaper their children (more than once/day, once/day, few times/week, few times/month, rarely, never) into approximate days per month (45, 30, 10, 4, 1 and 0, respectively). We then used OLS regression to estimate the association between leave-taking and this continuous outcome. For the second alternate measure, we used the original six categories reported previously and estimated the regression using ordered logistic regression. For both of these analyses, the associations between weeks of leave and fathers' care-taking remained unchanged from what they had been in our main specifications.

## Discussion and conclusions

In this paper, we examine which characteristics of fathers, mothers and children are associated with the likelihood and length of paternal leave-taking, and the associations between paternal leave-taking and fathers' involvement with child care-taking tasks nine months after the birth of the child. Consistent with some prior research, we find that the vast majority (89%) of fathers take some time off work after the birth of their child, but most take one week or less. These figures are similar for all families with working resident fathers, and for families where both parents worked prior to and nine-months after the birth of their child.

As discussed previously, our sample is based on families that are of higher SES than would be a sample of all families with young children (since our sample includes only two-parent families with working fathers); however, we still find that more advantaged fathers (white, better educated, in higher-prestige occupations) are more likely to take any leave, and are more likely to take a longer leave than those who are less advantaged on these indicators. These fathers may have more opportunity to take leave if they are in better, higher-paying jobs that provide paid leave, or paid vacation

and sick days; or they may, for other reasons, be more inclined to be involved with their children. Fathers' salary, controlling for other factors, was not related to leave-taking, suggesting that perhaps employer provision of leave and fathers' use of leave is more closely related to fathers' education and type of occupation than to salary level. However, this is an area where more research is needed.

We also find that fathers are less likely to take a longer leave (two weeks or more) if mothers are not working prior to the birth. Fathers in these single-earner families may not be able to afford to take time off, or may have different attitudes about gender roles. Fathers are more likely to take leave, and take longer leave, if this is their first child. This may indicate either that more children are associated with greater financial burden, so that fathers cannot afford to take time off, or that mothers with more children are more experienced and therefore less likely to need help from the father in taking care of an infant post-birth. Another interesting finding is that in dual-earner couples, fathers who are cohabiting with the mothers are more likely to take leave than are those who are married, perhaps reflecting that cohabiting couples have more egalitarian and gender-neutral attitudes towards childrearing than those in more traditional families.

We find that fathers who take two or more weeks off work after the birth of their child are much more likely to participate in a range of child-care tasks, controlling for a host of potential confounders, including two indicators of pre-birth father commitment to parenting. In contrast, fathers who take less than two weeks off work are no more likely to participate in these activities than fathers who took no time off.

As mentioned previously, even though we attempt to control for many factors, there is still a possibility that these results are due to unobserved heterogeneity between fathers who take a longer leave and those who do not. Fathers who take a longer leave and engage in child-care taking activities may be less committed to their jobs and/or more committed to child-rearing than fathers who do neither of these things. However, as discussed above, our results indicate that fathers in higher-prestige occupations are more likely to take longer leave, and our results were robust to inclusion of pre-birth father commitment. Another potential bias is that of unobserved heterogeneity between employers who provide leave and those who do not. Perhaps employers who provide leave have a constellation of other generous employee benefits, and create an environment that is supportive of parenting, which leads to more father involvement with children. We tested for this possibility by including other types of benefits for which fathers were eligible at work, and the original results remained unchanged. These robustness checks give us more confidence that there may be a causal link between paternal leave-taking and subsequent father involvement with their children, but we note that, given that our data are observational, we cannot establish causality with certainty.

The present study is limited in that we know relatively little about the characteristics of parents' pre-birth jobs. In particular, it would have been useful to know whether the pre-birth job offered paternity leave and on what terms. Our study is also limited in that we know relatively little about the wider context in which these new parents are making their leave-taking and care-taking decisions. It would be useful to know more about the parents' attitudes toward child care and gender roles. It would also be useful to know more about what other supports are available to these families as they embark on the care of their new child. These are all important topics to explore in future research.

Nevertheless, the strengths of the ECLS–B data far outweigh their limitations. In particular, this study benefited from having information provided directly by fathers as to their level of involvement in caring for their children nine months post-birth. Although there is evidence that fathers may overstate their level of involvement with child care-taking (Hochschild & Machung, 1989), and the measures in ECLS–B are likely not as accurate as they would be if they were gathered using time diaries, ECLS–B data do have the advantage that information on fathers' leave-taking is provided by mothers, reducing the possibility that links between leave-taking and care-taking might simply reflect reporting bias.

This study provides clear evidence that a substantial minority of fathers now takes a paternity leave of two or more weeks, and that those who do are more involved with child care-taking tasks nine months later. Whether and how this greater involvement impacts subsequent father–child involvement, and most importantly, child outcomes, will be critical to study as further waves of the ECLS–B data become available. If fathers who take longer leave continue to be more involved, and if such involvement proves to be beneficial to children, then a case could potentially be made to provide more access to paternity leave to new fathers in the US and, in particular, to address the reasons why low SES fathers are less likely to take leave and less likely to have that leave associated with more involvement subsequently. However, because of the exploratory nature of this study, and our hesitation to make causal inferences about these associations, firm policy implications will have to await future research.

## Acknowledgements

We gratefully acknowledge funding support from the National Institute of Child Health and Human Development (NICHD). We are also grateful for helpful comments from the editor and several anonymous reviewers.

## Notes

- 1 A study conducted by Westat in 2000 found that 45% of new fathers reported having taken a leave for FMLA-covered reasons during the past 18 months, but did not indicate the total share that took paternity leave (whether covered by the FMLA or not) (Cantor et al., 2001; Waldfogel, 2001a).
- 2 For 4,621 fathers (out of 4,638), responses were from the self-administered questionnaire; however, 17 fathers were the primary parent respondent in the household and their responses were taken from that questionnaire.

## References

- Averett, S., Gennetian, L., & Peters, H. E. (in press). Fathers as providers of child care. *Journal of Population Economics*.
- Bethel, J., Green, J., Kalton, G., & Nord, C. (2005). *Early Childhood Longitudinal Study, Birth Cohort (ECLS–B), sampling. Volume 2 of the ECLS–B methodology report for the 9-month data collection, 2001–02 (NCES 2005–147)*. Washington, DC: US Department of Education, National Center for Education Statistics.

- Bianchi, S., Casper, L., & King, R. (Eds.). (2005). *Work, family, health, and well-being*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bonney, J. F., Kelley, M. L., & Levant, R. F. (1999). A model of fathers' behavioral involvement in child care in dual-earner families. *Journal of Family Psychology, 13*, 401–415.
- Cantor, D., Waldfogel, J., Kerwin, J., Wright, M. M., Levin, K., Rauch, J., et al. (2001). *Balancing the needs of families and employers*. Rockville, MD: Westat.
- Casper, L. (1996). Who's minding our preschoolers? *Current Population Reports, P70–53, March*, Washington, DC: US Bureau of the Census.
- Casper, L., & O'Connell, M. (1996, May). *Couple characteristics and fathers as child care providers*. Paper presented at the annual meeting of the Population Association of America, New Orleans, LA.
- Commission on Family and Medical Leave. (1996). *A workable balance: Report to congress on family and medical leave policies*. Washington, DC: US Department of Labor, Women's Bureau.
- Conference Board. (1994). Family and medical leave. *Work–Family Roundtable, 4*(6), 1–14.
- Deutsch, F. M., Lussier, J. B., & Servis, L. J. (1993). Husbands at home: Predictors of paternal participation in childcare and housework. *Journal of Personality and Social Psychology, 65*, 1154–1166.
- Gottfried, A. E., & Gottfried, A. W. (1998). *Maternal employment and children's development: Longitudinal research*. New York: Plenum Press.
- Gottfried, A. E., Gottfried, A. W., & Bathurst, K. (2002). Maternal and dual-earner employment status and parenting. In M. Bornstein (Ed.), *Handbook of parenting* (pp. 207–229). Mahwah, NJ: Erlbaum.
- Han, W.-J., & Waldfogel, J. (2003). Parental leave: The impact of recent legislation on parents' leave taking. *Demography, 40*(1), 191.
- Hochschild, A., & Machung, A. (1989). *The second shift: Working parents and the revolution at home*. New York: Viking Penguin.
- Hoffman, L., & Youngblade, L. M. (1999). *Mothers at work: Effects on children's well-being*. New York: Cambridge University Press.
- Hyde, J. S., Essex, M. J., & Horton, F. (1993). Fathers and parental leave: Attitudes and experiences. *Journal of Family Issues, 14*(4), 616.
- Kammerman, S. (2000). Parental leave policies: An essential ingredient in early childhood education and care policies. *Social Policy Report, 14*(2), 3–15.
- Kiernan, K. (in press). Non-residential fatherhood and child involvement: evidence from the Millennium Cohort Study. *Journal of Social Policy*.
- Malin, M. (1994). Fathers and parental leave. *Texas Law Review, 72*(5), 1047–1095.
- Malin, M. (1998). Fathers and parental leave revisited. *Northern University Law Review, 19*(1), 25–56.
- Moss, P., & Deven, F. (Eds.). (1999). *Parental leave, progress or pitfall? Research and policy issues in Europe*. The Hague & Brussels: NIDI/CBGS Publications.
- NICHD Early Child Care Research Network (NICHD ECCRN). (2000). Factors associated with fathers' caregiving activities and sensitivity with young children. *Journal of Family Psychology, 14*(2), 200–219.
- O'Connell, M. (1993). *Where's papa? Fathers' role in child care*. Washington, DC: Population Reference Bureau.

- Pleck, J. (1993). Are 'family-supportive' employment policies relevant to men? In J. C. Hood (Ed.), *Men, work and family* (pp. 217–237). Newbury Park, CA: Sage.
- Presser, H. (1995). Job, family, and gender: Determinants of nonstandard work schedules among employed Americans in 1991. *Demography*, 32(4), 577.
- Shonkoff, J., & Phillips, D. (Eds.) (2000). *From neurons to neighborhoods*. Washington, DC: National Academies Press.
- StataCorp. (2005). *Stata Statistical Software (Release 9)* [Computer software]. College Station, TX: StataCorp LP.
- Tamis-Lemonda, C. S., & Cabrera, N. (Eds.) (2002). *Handbook of father involvement*. Mahwah, NJ: Erlbaum.
- Tanaka, S., & Waldfogel, J. (2007). Leave-taking and father involvement: Evidence from the Millennium Cohort Survey. *Community, Work & Family*, 10(4), 409–426.
- Waldfogel, J. (1999). Family leave coverage in the 1990s. *Monthly Labor Review*, October, 13–21.
- Waldfogel, J. (2001a). Family and medical leave: Evidence from the 2000 surveys. *Monthly Labor Review*, September, 17–23.
- Waldfogel, J. (2001b). What other nations do: International policies toward parental leave and child care. *The Future of Children: Caring for Infants and Toddlers*, 11(1), 99–111.

---

**Lenna Nepomnyaschy** is an Associate Research Scientist at Columbia University School of Social Work. Her research interests are broadly focused on how poverty and inequality impact all areas of child and family health and wellbeing. Much of her work has examined the impact of social policies on the well-being of families and children with a specific focus on welfare reform and child support enforcement. More recently, she has begun to explore socioeconomic and racial/ethnic disparities in child health and development, with the hope of understanding and identifying the individual and structural mechanisms that contribute to these disparities. Her work has been published in *Demography*, *American Journal of Public Health*, *Pediatrics*, *Social Service Review*, and *Journal of Marriage and Family*. She received her PhD in Social Work from Columbia University in 2003. Prior to that, she was a school social worker for eight years working with adolescents who were at-risk of dropping out of school. Address: Columbia University School of Social Work, 1255 Amsterdam Avenue, Rm. 718, New York, NY 10027, USA. Tel: +1 212 851 2379. Fax: +1 212 851 2206. E-mail: LN77@columbia.edu

**Jane Waldfogel** is Professor of Social Work and Public Affairs at the Columbia University School of Social Work and a Research Associate at the Centre for Analysis of Social Exclusion at the London School of Economics. She has written extensively about parental leave and other work-family policies. Waldfogel received her Ph.D. in public policy from Harvard University and her publications include *What Children Need* (2006) and *The Future of Child Protection* (1998).



## Appendix

**TABLE 1** Full results from logistic regression models of leave on diapering for all families and dual-earner families

	<i>All families</i>		<i>Dual-earner families</i>	
Leave				
Took leave	1.32*		1.41*	
	(2.04)		(2.31)	
Weeks of leave (no leave = ref.)				
<1 week		1.03		1.11
		(0.18)		(0.58)
1 week		1.25		1.26
		(1.42)		(1.36)
2+ weeks		1.77***		1.86***
		(3.94)		(3.86)
Father's characteristics				
Father's age	0.96	0.96	1.01	1.01
	(0.78)	(0.73)	(0.09)	(0.18)
Father's age-squared	1.00	1.00	1.00	1.00
	(0.66)	(0.61)	(0.58)	(0.66)
Non-Hispanic black	1.47*	1.45*	1.17	1.14
	(2.48)	(2.40)	(0.78)	(0.67)
Hispanic	0.77	0.76	0.74	0.73
	(1.68)	(1.77)	(1.29)	(1.34)
Asian	1.02	1.01	1.16	1.16
	(0.10)	(0.07)	(0.56)	(0.55)
Non-Hispanic other	1.16	1.17	1.30	1.34
	(0.66)	(0.73)	(0.63)	(0.71)
US-born	1.23	1.19	1.02	1.00
	(1.43)	(1.23)	(0.13)	(0.03)
High school graduate	1.21	1.19	1.24	1.27
	(1.11)	(1.00)	(0.91)	(1.02)
Some college	1.22	1.19	1.32	1.32
	(1.28)	(1.15)	(1.17)	(1.21)
Bachelor's degree or better	1.12	1.11	1.29	1.28
	(0.54)	(0.49)	(0.83)	(0.83)
Annual salary (\$000s)	.99*	0.99*	0.99*	0.99*
	(2.54)	(2.76)	(2.19)	(2.37)
Middle occupational prestige	0.99	0.96	0.84	0.82
	(0.15)	(0.35)	(1.14)	(1.30)

**TABLE 1** (Continued)

	<i>All families</i>		<i>Dual-earner families</i>	
High occupational prestige	1.09 (0.67)	1.05 (0.34)	1.08 (0.36)	1.06 (0.27)
Hours worked/week	0.98*** (4.59)	0.98*** (4.41)	0.98*** (4.00)	0.98*** (3.82)
Cohabiting at birth	1.49* (2.47)	1.50* (2.55)	1.54† (1.92)	1.56* (2.00)
Two children in HH	0.96 (0.45)	0.99 (0.14)	0.97 (0.24)	1.00 (0.02)
Three or more children	1.05 (0.42)	1.09 (0.84)	1.13 (0.83)	1.21 (1.30)
Midwest	1.07 (0.61)	1.09 (0.79)	1.00 (0.01)	1.01 (0.08)
South	1.06 (0.49)	1.05 (0.45)	0.98 (0.14)	0.97 (0.21)
West	0.89 (0.84)	0.87 (1.01)	0.82 (1.13)	0.80 (1.32)
Urban	1.18* (2.00)	1.16† (1.76)	1.14 (1.01)	1.10 (0.71)
Child's characteristics				
Male child	1.26** (2.93)	1.27** (2.95)	1.28* (2.30)	1.30* (2.41)
Child's age in months	1.03 (1.12)	1.03 (1.06)	1.02 (0.51)	1.02 (0.42)
Multiple birth	2.65*** (6.29)	2.59*** (6.21)	3.19*** (4.66)	3.02*** (4.50)
Low birthweight	1.11 (0.92)	1.09 (0.74)	1.29 (1.69)	1.26 (1.55)
Mother's characteristics				
Mother's age	0.98 (0.26)	0.98 (0.30)	0.90 (1.01)	0.89 (1.09)
Mother's age-squared	1.00 (0.23)	1.00 (0.22)	1.00 (1.22)	1.00 (1.23)
Parents are same race	0.71** (2.59)	0.71** (2.63)	0.65* (2.09)	0.64* (2.16)
High school graduate	0.99 (0.04)	0.99 (0.05)	0.99 (0.03)	0.99 (0.03)
Some college	1.05 (0.30)	1.04 (0.25)	1.16 (0.60)	1.17 (0.64)

**TABLE 1** (Continued)

	<i>All families</i>		<i>Dual-earner families</i>	
Bachelor's degree or better	1.11 (0.55)	1.11 (0.59)	1.23 (0.75)	1.26 (0.85)
Middle occupational prestige	0.82 (1.51)	0.82 (1.52)	0.87 (1.00)	0.87 (0.97)
High occupational prestige	0.79 (1.54)	0.80 (1.46)	0.72* (1.87)	0.73† (1.78)
Mother not working at nine-month survey	3.89 (1.03)	3.64 (0.99)		
Hours worked/week at current job	1.01*** (3.55)	1.01*** (3.42)	1.02*** (3.55)	1.01*** (3.41)
Father commitment				
Father attended birth classes	1.28* (2.43)	1.28* (2.37)	1.57** (3.04)	1.58** (2.99)
Father was in delivery room	1.82*** (3.49)	1.81** (3.42)	2.22** (3.18)	2.29** (3.17)
<i>Observations</i>	4638	4638	2249	2249

Figures are odds ratios and (z-statistics). †p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Copyright of *Community, Work & Family* is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.