

# Coparenting and Children's School Readiness: A Mediation Model

NATASHA CABRERA\*<sup>2</sup>  
 MINDY SCOTT†  
 JAY FAGAN‡  
 NICOLE STEWARD-STRENG†  
 NICOLE CHIEN†



Journal Name	F
	A
	M
	P
Manuscript No.	1
	4
	0
	8



Author Received:	Dispatch: 19/6/12	Journal:
No. of pages: 321		CE: Priya Lakshmi S.G.

PE: Karpaigavalli
-------------------

*We examined the long-term direct and indirect links between coparenting (conflict, communication, and shared decision-making) and preschoolers' school readiness (math, literacy, and social skills). The study sample consisted of 5,650 children and their biological mothers and fathers who participated in the Early Childhood Longitudinal Study-Birth Cohort. Using structural equation modeling and controlling for background characteristics, we found that our conceptual model of the pathways from coparenting to child outcomes is structurally the same for cohabiting and married families. Controlling for a host of background characteristics, we found that coparenting conflict and shared decision-making were negatively and positively, respectively, linked to children's academic and social skills and co-parental communication was indirectly linked to academic and social skills through maternal supportiveness. Coparenting conflict was also indirectly linked to children's social skills through maternal depressive symptoms. The overall findings suggest that for both cohabiting and married families, the context of conflicted coparenting may interfere with the development of children's social competencies and academic skills, whereas collaborative coparenting promotes children's school readiness because mothers are more responsive to their children's needs. These findings have implications for programs aimed at promoting positive family processes in cohabiting and married families.*

**Keywords:** Coparenting Conflict; Communication; Shared Decision-making and School Readiness

*Fam Proc* 51:304–321, 2012

\*Human Development, University of Maryland, College Park, MD.

†Child Trends, Washington, DC.

‡Temple, Philadelphia, PA.

Correspondence concerning this article should be address to Natasha Cabrera Human Development, University of Maryland, College Park, MA. E-mail: ncabrera@umd.edu.

This study was made possible by a grant from NCFMR Small Grant project, #10450045 to the first author. We thank them for their support.

1

3

## INTRODUCTION

4

Recent research has focused on the associations between coparenting, defined as “an enterprise undertaken by two or more adults who together take on the care and upbringing of children for whom they share responsibility” (McHale & Lindahl, 2011, p. 30), and father engagement across diverse family structures (Bronte-Tinkew & Horowitz, 2010; Carlson & Högnäs, 2011; Fagan & Palkovitz, 2011; Waller, 2012). Coparenting has been mostly examined in married couples and less so in cohabiting families. Given the unprecedented rise in the percentage of children living in cohabiting families, it is important to understand how unmarried couples coparent. Moreover, with some exceptions (Belsky & Fearon, 2004; Cabrera, Shannon, & LaTaillade, 2009; Caldera & Lindsey, 2006), most of this literature has not examined the influence of coparenting, which can be supportive and of high quality or non-supportive and of negative quality (Feinberg, 2003), on children’s school readiness across family structures. Focusing on school readiness is important because it is the foundation for school success, and is the most salient task that parents are engaged in with their young children. Of the studies that have linked coparenting to children’s outcomes, most have been conducted with small non-representative samples, and have not examined the mechanisms that explain this link. This is a significant omission because coparenting is a central family process linked to parenting and child functioning (McHale & Lindahl, 2011).

In this study, we focus on three dimensions of coparenting (conflict, communication, and shared decision-making) to better understand the direct links between the quality of coparenting relationships and children’s school readiness (academic and social skills) in a national sample of children and their married and cohabiting parents. In addition, we determine whether the association between coparenting and school readiness is mediated by maternal supportiveness or maternal mental health, and examine whether these associations are influenced by marital status.

## THEORETICAL FRAMEWORK

We frame this study using family systems theory that family members are interdependent and that the dynamic nature of various family relationships (e.g., mother–father, parent–child, sibling–sibling) affect each other and influence individual outcomes (Cox & Paley, 1997; McHale et al., 2002; Van Egeren & Hawkins, 2004). McHale and Lindahl (2011) and others (Feinberg, 2003; McHale, Kuersten-Hogan, & Rao, 2004) have proposed that coparenting is distinct from other couple dimensions of parents’ relationship (intimacy, conflict), and that because of its proximity to the child, it is more tightly related to child wellbeing than other aspects of the interparental relationship (Feinberg, 2003). Thus, the coparenting relationship involves a triadic interaction (mother–father–child) and a dyadic interaction (mother–father).

There is consensus that as Feinberg (2003) has proposed the quality of the coparenting relationship (e.g., support, childrearing agreement, division of labor, and joint family management) both directly and indirectly (through the parent–child relationship) influence child adjustment. For example, co-parental conflict, parental communication, and participation in decisions about child rearing (joint family management) are dimensions of coparenting that are linked to parenting and children’s outcomes (Feinberg, 2003; McHale & Lindahl, 2011).

Family systems theory also suggests that the associations between the coparenting and the parent-child subsystems may depend on other contextual factors, such as parents' marital status (Feinberg, 2003). In contrast with cohabiting couples, married individuals function as shared entities (e.g., shared home ownership) rather than independently (Wilk, Bernhardt, & Noack, 2009); have more contact and stronger ties with extended family members (Eggebeen, 2005); and, get more help from family and friends to work out their coparenting problems (Nock, 1995). (although see Burton & Hardaway, 2012 and Gaskin-Butler, Engert, Markievitz, Swenson, & McHale, 2012 for discussions of how extended kin function as coparents in many family systems led by unmarried parents). Married parents may therefore be better able to communicate with each other and engage in shared decision-making in relation to child rearing. On the basis of these findings and the tenets of family systems theory, we examine whether the links between coparenting and child outcomes vary for couples who are married versus those who are cohabiting.

### CONCEPTUAL MODEL

A family systems perspective suggests that parents who communicate and share in the decision-making, but also experience conflict over how to rear their children, will directly and indirectly through parent-child interactions (dyadic) and parents' psychological well being, influence their children's functioning.

According to Feinberg (2003), parents are responsible for managing family interactions by controlling their communications and behaviors (e.g., conflict) with each other, which influence their children. According to our hypothesized model (see Figure 1), coparenting conflict, communication, and decision-making when the child is 24 months old will be directly linked to children's math, literacy, and social skills at 48 months. Parents who are not supportive of one another or disagree over child-rearing

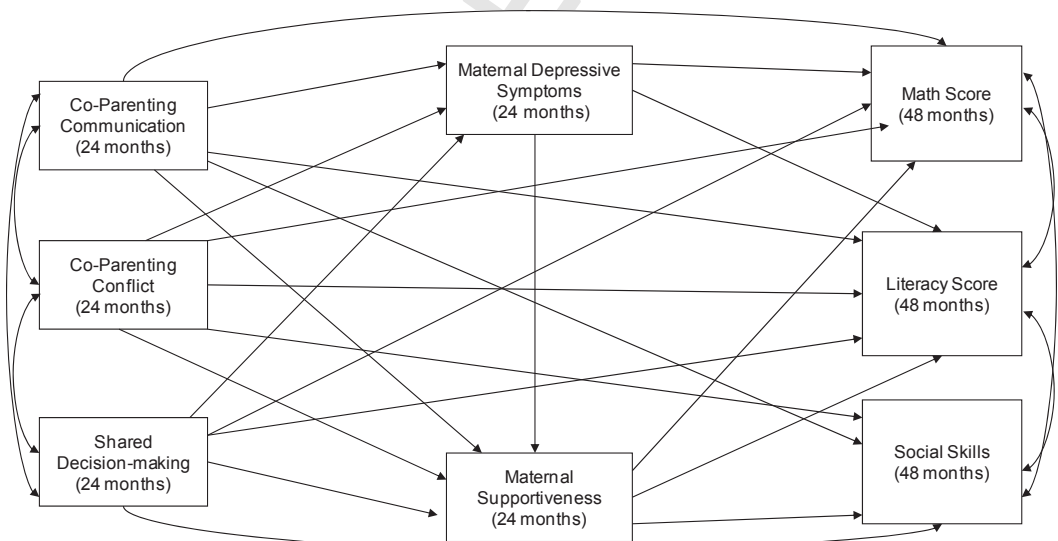


FIGURE 1. Conceptual model.

1 tasks are less likely to both model and assist children in emotion regulation, which  
2 are important for exploration and learning in social contexts (Raikes & Thompson,  
3 2005). Moreover, hostile parents may have a difficult time bonding with their chil-  
4 dren, and hence might inhibit exploratory behaviors, which can interfere development  
5 of social skills (playing with other children, paying attention, and trying to under-  
6 stand others).

7 Our model also links communication and shared-decision-making directly to chil-  
8 dren's school readiness. Parental communication and shared decision-making repre-  
9 sent coparenting processes that promote parents' joint responsibility to provide for  
10 children's physical and emotional needs (Feinberg, 2003). Parents who communicate  
11 about their child on a regular basis and share in making decisions about children's  
12 health, nutrition or child care may signal to their children parental harmony and a  
13 working relationship, which can result in children having feelings of security and  
14 competence and support and support their learning behaviors.

15 According to our conceptual model, coparenting also influences children's outcomes  
16 *through* its effect on maternal mental health (Feinberg, 2003). Maternal depression  
17 has been found to negatively affect parent-child interactions (Field, Hernandez-Reif,  
18 & Feijo, 2002) and compromises mothers' ability to parent, impairs marital function-  
19 ing, and causes stress for children, resulting in poor child functioning (Elgar,  
20 McGrath, Waschbusch, Stewart, & Curtis, 2004). For example, research shows that  
21 co-parental conflict increases mothers' stress levels and depressive symptoms, which  
22 have been negatively linked to the development of emotional, behavioral, language,  
23 and cognitive problems in children at all stages of development, including infancy  
24 (Brown et al., 2004; Petterson & Albers, 2001). In contrast, positive co-parental rela-  
25 tionships characterized by communication and shared decision-making are expected  
26 to promote parents' wellbeing.

27 Our model also tests the association between our study variables and children's  
28 school readiness *through* maternal supportiveness (Feinberg, 2003). Children  
29 develop in a sociocultural context where they interact with caregivers, siblings, and  
30 others (Vygotsky, 1979). Whereas maternal supportiveness has been linked to  
31 greater cognitive, academic, and social competence in preschool aged children  
32 (Crockenberg & Litman, 1990), reduced maternal supportiveness has been linked to  
33 cognitive delays and poor social skills (Cabrera, Fagan, Wight, & Schadler, 2011).  
34 Although the mechanisms accounting for the links between coparenting and parent-  
35 ing are not yet fully understood (Feinberg, Kan, & Hetherington, 2007), there is  
36 evidence that higher levels of co-parental conflict may reduce mothers' feelings of  
37 self-efficacy, whereas increasing parenting stress levels, resulting in poor parenting  
38 behaviors (Margolin, Gordis, & John, 2001). Researchers have found that co-parental  
39 conflict in the home is linked to harsher and less responsive parent-child interac-  
40 tions, (Katz & Woodin, 2002), which is related to children's maladjustment (Amato &  
41 Fowler, 2002).

## 42 43 **Current Study**

44 Although research shows that coparenting is directly and indirectly linked to  
45 parenting and children's school readiness, there is less clarity on how these copar-  
46 enting processes influence children's development over time. Guided by review of  
47 the literature and informed by family systems theory, we examine longitudinal  
48

1 effects of coparenting conflict, communication, and shared decision-making on chil-  
2 dren's school readiness—math, literacy, and social skills. We hypothesize that a neg-  
3 ative coparenting relationship, characterized by high levels of conflict, will be  
4 directly and negatively associated with preschoolers' skills. We posit that a positive  
5 coparenting relationship, characterized by high levels of communication and shared  
6 decision-making, will be directly and positively associated with preschoolers' skills.  
7 We also hypothesize that co-parental conflict will increase mothers' depressive  
8 symptoms and reduce maternal supportiveness, which, in turn, will be negatively  
9 associated with children's skills. Co-parental communication and shared decision-  
10 making are expected to decrease mothers' depressive symptoms and increase mater-  
11 nal supportiveness, which, in turn, will be positively associated with children's  
12 skills.

13     Apropos to this special volume on fragile families, an important study aim was to  
14 contribute to research, practice and policy efforts targeting fragile families by  
15 assessing the extent to which associations between coparenting and preschool out-  
16 comes vary (or not) by parents' marital status. We suggest that results indicating  
17 greater similarity than difference between married and cohabiting couples would  
18 provide a case for generalizability of the hypothesized relations across diverse family  
19 structure (i.e., identify "common" pathways), whereas findings suggesting greater  
20 difference than similarity would help to identify uniqueness in the pathways by  
21 which coparenting matters for children's school readiness. Evidence of relational  
22 similarities across cohabiting and married families would make the case for similar  
23 services targeting married and cohabiting families with respect to coparenting  
24 behaviors. In contrast, evidence of relational differences between married and cohab-  
25 iting families would argue for more group-specific services that address identified  
26 areas of need.

## 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 **METHOD**

### **Data Source**

31 These analyses use data from the Early Childhood Longitudinal Study Birth  
32 Cohort (ECLS-B) 9-, 24-, and 48-month surveys. The ECLS-B tracks a nationally  
33 representative sample ( $N = 10,700$ ) of children born in 2001 from infancy to kinder-  
34 garden entry to assess their experiences in a variety of domains (Nord et al., 2004).  
35 The primary modes of data collection were in-person interviews and direct child  
36 assessments during home visits. Information on children was also drawn from birth  
37 certificates and from interviews with parents, child-care providers, and teachers. The  
38 ECLS-B resident father lived with the sampled children and, at each data collection  
39 point, was asked to complete a 20-minute self-administered questionnaire.

### **Analytic Sample**

43 At 9 (baseline) and 48 months, approximately 10,700 and 8,950 parent interviews,  
44 respectively, and 10,000 and 8,750 child assessments, respectively, were completed.  
45 Our sample includes 6,000 children living with their biological mother and father at  
46 9, 24, and 48 months. Approximately 350 cases were excluded from the analysis  
47 because of missing data on the 48-month child-level weight variable, resulting in a  
48 sample of 5,650. Cases with missing data on the child-level weight variable included

1 cases for which no 48-month survey was completed (i.e., cases lost to attrition) as well  
2 as cases for which children did not have at least one assessment at each time point  
3 (e.g., survey was completed by telephone or parent would not allow assessments to be  
4 conducted). There was less than 5% missing data in our outcomes and predictors  
5 (except for literacy at 6% and coparenting conflict at 16%). Missing data among the  
6 control variables was slightly higher (10% and 27%). Using the Full Information Max-  
7 imum Likelihood (FIML) method, which allows Mplus to estimate parameters even  
8 for cases with missing data (Muthén & Muthén, 2006), our final analytical sample is  
9  $n = 5,650$ . All analyses were conducted using sample weights that were selected based  
10 on the combination of survey components to be used in the analysis. As we use 9- and  
11 48-month child assessments and 9-, 24-, and 48-month parent reports, we used a  
12 child-level weight adjusted for disproportionate sampling, survey nonresponse, and  
13 noncoverage of the specific target population.

## 15 **Child Outcomes Measures**

16 In this study, we measured the following school readiness skills: social, literacy,  
17 and math skills.

### 19 *Social skills*

20 Parents were asked how often the child exhibits behaviors, such as playing with  
21 other children, paying attention well, and trying to understand others, at the  
22 48-month interview (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *very often*).  
23 Parents were prompted to consider how the child's behavior in the prior 3 months  
24 related to children who are within 2 years of their child's age. These items were  
25 drawn from the Preschool and Kindergarten Behavior Scales-Second Edition (Merrell,  
26 2003), with modifications made to some items (Tourangeau, Nord, & Atkins-Burnett,  
27 2006). We created a 13-item index with an alpha of 0.84.

### 29 *Literacy skills*

30 The literacy assessment included 37 scored items across six key domains: letter rec-  
31 ognition-in both receptive and expressive models, letter sounds, early reading—recog-  
32 nition of simple words, phonological awareness, knowledge of print conventions, and  
33 matching word (Snow et al., 2007). The literacy score is based on item response theory  
34 (IRT), which uses patterns of correct and incorrect answers to obtain estimates on a  
35 scale that may be compared across different assessment forms (for the same outcome),  
36 and provides scores that can be compared regardless of which assortment of items a  
37 child received through adaptive testing (Snow et al., 2007). The overall scale score  
38 was 0.81.

### 40 *Math skills*

41 The math assessment was developed using psychometric data available from the  
42 field test and provided coverage of five primary constructs with 28 total items: num-  
43 ber sense, geometry, counting, operations, and patterns (Snow et al., 2007). Results  
44 from the field test indicated that different domains were more or less appropriate for  
45 children according to their ability levels, so domains were split into low forms, high  
46 forms, and routing tests (Snow et al., 2007). We used the IRT overall scale score,  
47 which has an alpha of 0.88.

## Predictors

### *Coparenting communication*

Mothers were asked to report on how frequently they talked with the father about the focal child (1 = *not at all*, 6 = *daily*). Using the responses from the 24-month survey we also created a measure of fathers' report of how frequently they talked with the mother about the focal child with matching response categories (1 = *not at all*, 6 = *daily*).

### *Coparenting conflict*

At 24 months, mothers were asked to report of how frequently they argued with her spouse or partner about their children. Mothers were asked "*Do you and your spouse/partner often, sometimes, hardly ever, or never have arguments about your children.*" A similar question was also asked of fathers on the 24-month resident father survey.

### *Shared decision-making*

At 24-months, mothers were asked "*When it comes to making major decisions about the child, please tell me if the father has No Influence, Some Influence, or a Great Deal of Influence on such matters as:*" discipline, nutrition, healthcare, and childcare. The values of the four items were summed (range 4–12); higher schools indicated that the father had more influence in decision-making ( $\alpha = .81$ ). Fathers who responded to the resident father survey were also asked to report on how much influence they felt they had on the same issues. A similar index was developed for fathers at 24-months ( $\alpha = .94$ ).

## Mediators

### *Maternal depressive symptoms at 24 months*

The Major Depression subscale of the Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Utsun, & Wittchen, 1998; Walters, Kessler, Nelson, & Mroczek, 2002; World Health Organization, 1990) is composed of a series of branching questions about anhedonia and dysphoria. Participants who "pass" each branching question are routed to further questions about symptoms; participants who do not "pass" skip the items about symptoms. Respondents received a "3" if they reported experiencing dysphoria (i.e., sadness) or anhedonia (i.e., inability to experience pleasure) everyday or almost every day for a period of 2 weeks or more in a row, and for at least half of the hours on the days that they experience it; a score of "2" if they reported experiencing such symptoms less often than almost every day; a "1" if they reported experiencing these symptoms less than half of the hours in the day; and a "0" if they did not experience any symptoms for the entire 2 week period.

### *Maternal supportiveness*

Maternal supportiveness was measured at 24 months using the supportiveness composite variable of the Two Bags Task (Nord et al., 2004). The Two Bags Task is a simplified version of the Three Bags Task (Brady-Smith, O'Brien, Berlin, & Ware, 1999), and assesses six parent behaviors (parental sensitivity, intrusiveness, stimulation of cognitive development, positive regard, negative regard, and detachment) and

1 three child behaviors (child engagement, sustained attention, and negativity toward  
2 parent). Maternal supportiveness was assessed based on scores on maternal sensitiv-  
3 ity, cognitive stimulation, and positive regard that have been found to be intercorre-  
4 lated in previous large-scale datasets. Scores on this measure range from 1 to 7  
5 (*mean* = 4.5), with higher scores indicating more supportive parenting. Information  
6 about the training of observers and how inter-rate reliability was established can be  
7 found elsewhere (Cabrera et al., 2011).

## 8 9 **Control Variables**

### 10 *Household and parents' characteristics*

11  
12 *Maternal employment*, linked to supportive coparenting behavior (Lindsey, Cal-  
13 dera, & Colwell, 2005), was measured at 24 months using a dichotomous variable  
14 indicating the biological mother's employment status. *Maternal education*, robustly  
15 linked to children's school readiness and social skills (Walker et al., 2011), was mea-  
16 sured at 9-months as a four-category variable that indicated if the mother had less  
17 than a high school degree, completed high school, attended some college, or had at  
18 least a four-year college degree. *Mother's age at birth*, linked to maternal responsive-  
19 ness, was measured continuously (Cabrera, Shannon, West, & Brooks-Gunn, 2006).  
20 We also control for whether or not the child's mother was *born outside the U.S.*  
21 (reported at 9 months) as patterns of mother-child interactions might vary by country  
22 of origin (Cabrera et al., 2006). We also include a direct assessment of the quality of  
23 the mother-child interaction at 9 months using the Nursing Child Assessment Teach-  
24 ing Scale (NCATS), which codes mother and child behaviors using four subscales: sen-  
25 sitivity to the infant's cues, response to distress, social-emotional growth fostering  
26 behavior, and cognitive growth fostering behavior. Higher scores indicate more posi-  
27 tive parenting practices. To control for earlier levels of depressive symptoms, we also  
28 included a control for maternal depressive symptoms at 9 months, measured with the  
29 Center for Epidemiological Studies Depression Scale—Short Form (CESD-SF), which  
30 comprises 12 of the 20 items from the full CES-D (Radloff, 1977) (Ross, Mirowsky, 5  
31 & Huber, 1983). Items were rated on a 4-point Likert scale (1 = *rarely* to 4 = *most or* 6  
32 *all days*). Higher scores indicated more depressive symptoms ( $\alpha = .90$  and  $.85$  for  
33 mothers and fathers, respectively).

34 *Marital status* indicates whether the biological parents are cohabiting versus mar-  
35 ried at 24 months. Compared with unmarried fathers, some evidence suggests that  
36 married fathers are more involved with children (Hofferth & Anderson, 2003), which  
37 may indicate more positive co-parental relationships. *Poverty status*, measured using  
38 a dichotomous variable that identified households below 100% of the federal poverty  
39 line, has been positively associated with coparenting and higher cognitive and aca-  
40 demic outcomes (Pettersen & Albers, 2001).

### 41 *Child characteristics*

42  
43 We control for child age (measured in months) and gender (male = 1) because it  
44 has been linked to positive coparenting (Margolin et al., 2001). We control for child  
45 temperament and children's disability status given their associations with more nega-  
46 tive parenting behavior and parenting stress (Lindsey et al., 2005; Van Egeren,  
47 2004). *Child disability* status was measured at the 9-month survey by asking mothers  
48 if their child had been diagnosed with a disability (e.g., blindness, failure to thrive,



Down syndrome, etc.). *Children's temperament* was measured at 9 months using a seven-item abbreviated version of the Infant/Toddler Symptom Checklist (ITSC) (DeGangi, Poisson, Sickel, & Weiner, 1995). Caregivers were asked seven questions about their children's regulatory behaviors (e.g., how often the child is fussy or irritable; the child goes easily from a whimper to an intense cry). The scores for each item, which were scored from 0 = child never fit the description to 3 = fit the description most of the time, were then added together to create a single variable assessing the child's temperament ( $\alpha = .57$ ). Higher scores indicate a more difficult temperament. *Child's race*, linked to coparenting, parenting, and child well-being (Dorsey, Forehand, & Brody, 2007), was measured using a categorical variable that identified whether the child was non-Hispanic White, non-Hispanic Black, Hispanic, or of another race/ethnicity. *Cognitive ability* at 9-months is included to control for early learning ability, and was measured using the Bayley Short Form - Research Edition (BSF-R) Mental Scale at 9 months (Nord et al., 2004).

### Analytic Strategy

We conducted path analysis using Mplus (Muthén & Muthén, 1998-2009) to test direct and indirect effects of mothers' perceptions of co-parental conflict, communication, and shared decision-making at 24 months on children's math, literacy, and social outcomes at 48 months, as shown in Figure 1. Analyses used sampling weights, adjusted for the complex sampling design, and used FIML to handle missing data (Arbuckle, 1996). We assessed the acceptability of model fit using a cut-off of less than 0.06 for the Root Mean Square Error of Approximation (RMSEA), of greater than 0.95 for the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI), and of less than 0.09 for the Standardized Root Mean Square Residual (SRMR). We also report the chi-square value for the models, although this goodness of fit estimate is likely to be significant with large samples even when the model fits the data well. The estimation method used was maximum likelihood with robust standard errors (MLR) because it is robust to violations of normality. We used the delta method standard errors provided as the default method in Mplus, to test the indirect effects (Muthén & Muthén, 2007).

## RESULTS

### Mean-level Differences in Study Variables by Marital Status

Table 1 presents weighted descriptive statistics for the variables in the analysis for the full sample and for married and cohabiting couples. Thirteen percent of biological resident parents were cohabiting at 24 months. At 24 months, the full sample of mothers and fathers reported more frequent communication (*mean* = 5.9, *range* = 1–6), infrequent coparenting conflict (*mean* = 2.3 for mothers; *mean* = 2.2 for fathers; *range* = 1–4), and high shared decision-making (*mean* = 10.4 for mothers; *mean* = 10.2 for fathers; *range* = 4–12). On average, the full sample of mothers had low levels of depressive symptoms at 24 months (*mean* = 0.3, *range* = 0–3), and were moderately supportive in interactions with their children at 24 months (*mean* = 4.5, *range* = 1–7).

The average age of all mothers was 30 (*range* = 15–51) and more than half (52%) were employed. Twenty-two percent of mothers were foreign-born; 10% had less than

TABLE 1  
 Weighted Descriptives for Children Living With Both Biological Parents

	Total	Married	Cohab
<b>Independent variables</b>			
Mother Report, 24 months			
Co-Parenting Communication, mean [1–6]	5.9 (0.3)	5.9 (0.3)	5.9 (0.3)
Co-Parenting Conflict, mean [1–4]	2.3 (0.8)	2.3 (0.8)	2.4 (1.0)
Shared Decision-making, mean [4–12]	10.4 (1.9)	10.4 (1.9)	10.3 (2.0)
Father Report, 24 months			
Co-Parenting Communication, mean [1–6]	5.9 (0.5)	5.9 (0.5)	5.8 (0.4)
Co-Parenting Conflict, mean [1–4]	2.2 (0.8)	2.2 (0.8)	2.2 (0.9)
Shared Decision-making [1–12]	10.2 (1.8)	10.2 (1.8)	10.3 (1.9)
<b>Mediators</b>			
Maternal Depressive Symptoms (CIDI-SF) at 24 months, mean [0–3]	0.3 (0.9)	0.3 (0.9)	0.3 (0.8)
Maternal Supportiveness (Two Bags Task) at 24 months, mean [1–7]	4.5 (0.9)	4.6 (0.8)	4.0 (0.8) ***
<b>Controls</b>			
Mother's Individual Characteristics			
Mother's Age (in years) at 9 months, mean [15–51]	29.8 (5.7)	30.4 (5.4)	26.1 (5.7) ***
Employed at 24 Months	52%	53%	51%
Foreign-born at 9 months	22%	22%	39% ***
Mother's Education at 9 months			
< high school degree	10%	10%	37% ***
high school degree/equiv/vocational school	26%	26%	39% ***
some college	27%	27%	19% ***
at least a college degree (BA)	37%	37%	4% ***
Maternal Depressive Symptoms (CES-D) at 9 months, mean [1–4]	1.4 (0.4)	1.3 (0.4)	1.5 (0.5) ***
Household Characteristics and Family Characteristics			
Biological Parents Cohabiting (vs. Married) at 24 Months	13%	–	–
Positive Parenting (NCATS), mean [28–70] (9 months)	50.5 (5.8)	50.8 (5.8)	48.0 (5.6) ***
Below 100% of the Federal Poverty Line at 9 months	11%	11%	38% ***
Child Characteristics			
Male	51%	51%	59% *
Race/Ethnicity (measured at 9 months)			
Non-Hispanic White	66%	66%	32% ***
Non-Hispanic Black	5%	5%	10% ***
Hispanic	22%	22%	52% ***
Other Race/Ethnicity	7%	7%	5% ***
Age (in months) at 9 months, mean [6.9–22.2]	10.4 (1.9)	10.3 (1.9)	10.4 (1.8)
Child has disability at 9 months	6%	6%	5%
Cognitive Ability (Bayley Short Form - Research Edition) at 9 Months, mean [1–5]	1.1 (0.5)	1.1 (0.5)	1.1 (0.4)
Temperament at 9 months, mean [0–20]	8.0 (3.8)	7.9 (3.8)	8.3 (3.5)
<b>Dependent variables (48 months)</b>			
IRT Math Scores [9.9–65.7]	30.4 (9.6)	31.1 (9.5)	26.5 (8.7) ***
Literacy Score [5.4–34.7]	13.8 (7.1)	14.2 (7.1)	11.2 (6.1) ***
Social Skills [1–5]	3.9 (0.5)	3.9 (0.5)	3.9 (0.5)

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

1 a high school degree, 26% were high school graduates, 27% had some college, and 37%  
2 had at least a 4-year degree. Married mothers were less likely than cohabiting mothers  
3 to be foreign-born and were more highly educated. Mothers also reported low levels of  
4 depressive symptoms at 9 months, and married mothers reported fewer depressive  
5 symptoms than cohabiting mothers.

6 Overall, mothers scored an average of 50.5 on the NCATS (*range* = 23–70); married  
7 mothers scored significantly higher than cohabiting mothers. At 9-month, more than  
8 one in 10 (11%) of families were below 100% of the federal poverty line; cohabiting  
9 couples were more likely than married couples to be in poverty. Slightly more than  
10 half of the children (51%) were men, with more male children live in cohabiting fami-  
11 lies. Two-thirds of children (66%) were non-Hispanic White, 5% were non-Hispanic  
12 Black, 22% were Hispanic, and 7% were of another race/ethnicity. A significantly  
13 greater proportion of children were living in cohabiting compared with married house-  
14 holds. At 9-month, children were, on average, 10.4 months old (*range* = 6.9–22.2), 6%  
15 had a disability, scored an average of 1.1 on the Bayley Short Form (*range* = 1–5, and  
16 8.0 on the ITSC scale of temperament (*range* = 0–20). Preschool-aged children scored  
17 an average of 30.4 (*range* = 9.9–65.7) and 13.8 (*range* = 5.4–34.7) on the math and on  
18 the literacy assessment, respectively; children living with married parents scored  
19 higher than children with cohabiting parents. At 48 months children had average  
20 social skill scores of 3.9 (*range* = 1–5).

## 22 **Multivariate Analyses**

23 Figure 2 displays the standardized path coefficients for the model estimating the  
24 influence of mothers' perceptions of coparenting conflict, communication, and shared  
25 decision-making on children's math, literacy, and social skills, with maternal depressive  
26 symptoms and maternal supportiveness as mediators. Even though Feinberg's  
27 (2003) model of coparenting suggests that communication and shared decision-making  
28 should be a latent variable, the data do not support his theory, that is, the correlation  
29 between these variables is very low ( $r = .17$ ). Thus, a measurement model was not a  
30 good fit and the final tested model included only observed variables. We also ran the  
31 models separately for married and cohabiting subgroups to determine if there were  
32 structural differences between them. We tested all pathways identified in the concep-  
33 tual model, and show significant pathways using bolded lines. The model fit for full  
34 sample was good (RMSEA = 0.011, CFI = 0.995, TLI = 0.971, SRMR = 0.007). The  
35 model fit was similar for the married subsample (RMSEA = 0.015, CFI = 0.995,  
36 TLI = 0.958, SRMR = 0.013), and for the cohabitating subsample (RMSEA = 0.000,  
37 CFI = 1.000, TLI = 1.053, SRMR = 0.013). Multiple group analysis showed no struc-  
38 tural differences between married and cohabiting families (the omnibus test produced  
39 a chi-square difference test that was not significant) suggesting that the pathways  
40 from our predictors to outcome measures is the same for both groups. As there is no  
41 significant difference between the models, we do not discuss the models separately,  
42 but combine them into one model. Table 3 presents the overall direct, indirect, and  
43 total effects for the estimated SEM model for the full sample.

44 We also tested a model using fathers' perceptions of coparenting communication,  
45 conflict, and decision-making (RMSEA = 0.019, CFI = 0.991, TLI = 0.920,  
46 SRMR = 0.010), but there were no significant differences in path coefficients from the  
47 model using mother's reports. Pathways from the mother and father models were  
48

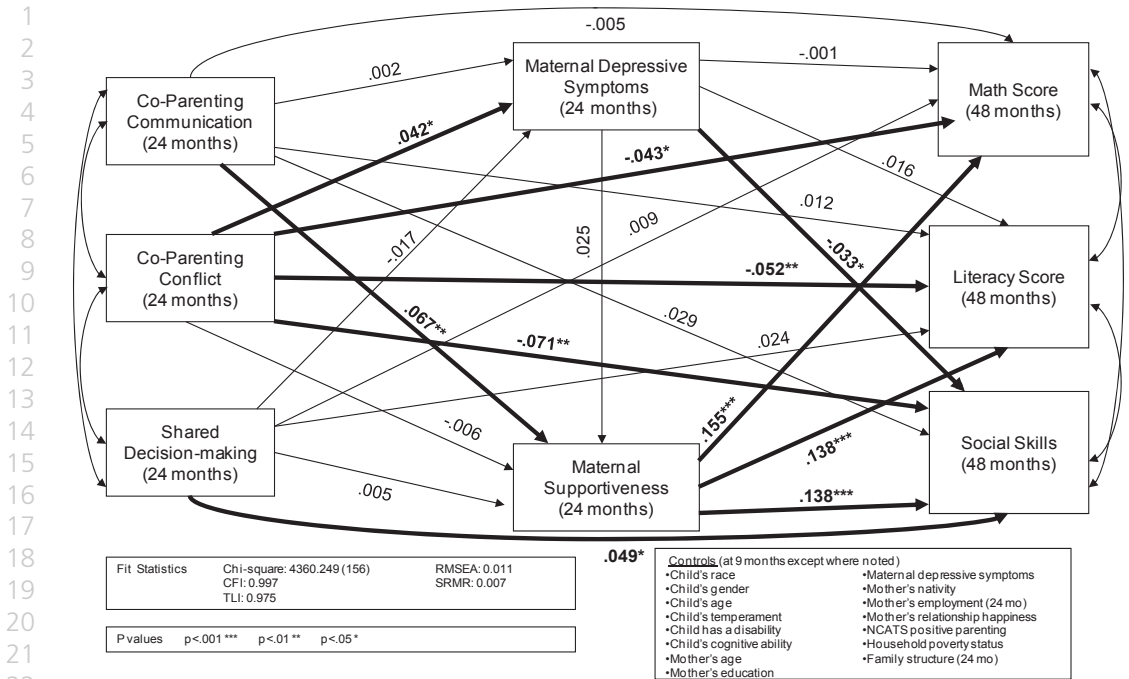


FIGURE 2. Standardized coefficients from SEM models predicting child outcomes—mother's perceptions of co-parenting.

compared by constructing confidence intervals around each path coefficient and determining whether the confidence interval in the mother-report model overlapped with the respective confidence interval in the father-report model. Thus, in this study, we present the model that uses mothers' perceptions of coparenting.

Higher reports of coparenting communication at 24 months were associated with greater observed maternal supportiveness ( $\beta = 0.067, p < .01$ ), which in turn was related to higher math scores ( $\beta = 0.155, p < .001$ ), higher literacy scores ( $\beta = 0.138, p < .001$ ), and better social skills ( $\beta = 0.138, p < .001$ ) at 48 months. Indirect effects from coparenting communication to all three child outcomes were also significant through maternal supportiveness (see Table 3). Net of these indirect effects, coparenting communication had no direct effects on any child outcomes.

Higher levels of mothers' reports of coparenting conflict were directly and negatively associated with all three child outcomes: lower math scores ( $\beta = -0.043, p < .05$ ), lower literacy scores ( $\beta = -0.052, p < .01$ ), and lower social skills ( $\beta = -0.071, p < .001$ ). Coparenting conflict was also related to higher levels of maternal depressive symptoms ( $\beta = 0.042, p < .05$ ), and maternal depressive symptoms were in turn negatively related to social skills ( $\beta = -0.033, p < .05$ ). There were no indirect effects from coparenting conflict for any of the child outcomes.

Finally, higher reports of shared decision-making were directly related to higher children's social skills ( $\beta = 0.049, p < .05$ ). However, shared decision-making had no other effect on math and literacy skills and depressive symptoms and maternal supportiveness.

TABLE 2  
Standardized Coefficients From SEM Models

23

	$\beta$
Co-parenting communication → Maternal depressive symptoms	0.002
Co-parenting communication → Maternal supportiveness	0.067**
Co-parenting communication → Math score	-0.005
Co-parenting communication → Literacy score	0.012
Co-parenting communication → Social skills	0.029
Co-parenting conflict → Maternal depressive symptoms	0.042*
Co-parenting conflict → Maternal supportiveness	-0.006
Co-parenting conflict → Math score	-0.043*
Co-parenting conflict → Literacy score	-0.052**
Co-parenting conflict → Social skills	-0.071**
Shared decision-making → Maternal depressive symptoms	-0.017
Shared decision-making → Maternal supportiveness	0.005
Shared decision-making → Math score	0.009
Shared decision-making → Literacy score	0.024
Shared decision-making → Social skills	0.049*
Maternal depressive symptoms → Maternal supportiveness	0.022
CFI	0.997
TLI	0.975
RMSEA	0.011
SRMR	0.007
N	5650

Note. Perceptions of co-parenting communication, co-parenting conflict, and shared decision-making were all reported by mothers.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## DISCUSSION

Following a family systems framework and using a nationally representative, longitudinal sample of children in the ECLS-B, we found that conflict in the coparenting relationship when children are toddlers predicted poorer child social and academic skills at age 48 months. Conversely, shared decision-making was directly linked to children's social skills and high frequency of communication was indirectly linked to school readiness through its influence on maternal supportiveness.

Consistent with past research, negatively associating parental disagreements about childrearing and children's outcomes (Belsky, Crnic, & Gable, 1995; Feinberg et al., 2007), we found a significant, albeit small, negative direct association between co-parental conflict and lower academic and social skills for preschoolers, net of socio-demographic and other controls. This is similar to findings reported by Belsky et al. (1995) and supports the notion that acrimonious parental interactions and disagreements about childrearing are detrimental to young children's development (Feinberg et al., 2007).

The hypothesis that coparenting would work indirectly through maternal supportiveness to influence child outcomes was supported only for coparenting communication for all three outcomes. Mothers who reported talking frequently with their partners about their children had children who scored higher on school readiness skills. On the other hand, shared decision-making (the degree to which a father had influence on issues such as discipline, nutrition healthcare, and childcare), was only

TABLE 3  
Direct and Indirect Effects

	Total Effect	Direct Effect	Indirect Effect
Co-parenting communication → Math Score	0.142	-0.149	
Depressive symptoms			0.000
Support			0.291**
Depressive symptoms → Support			0.000
Co-parenting conflict → Math Score	-0.492*	-0.484*	
Depressive symptoms			0
Support			-0.010
Depressive symptoms → Support			0.002
Shared decision-making → Math Score	0.050	0.046	
Depressive symptoms			0.000
Support			0.004
Depressive symptoms → Support			0.000
Co-parenting communication → Literacy Score	0.442	0.246	
Depressive symptoms			0.001
Support			0.192**
Depressive symptoms → Support			0.000
Co-parenting conflict → Literacy Score	-0.440**	-0.440**	
Depressive symptoms			0.006
Support			-0.007
Depressive symptoms → Support			0.001
Shared decision-making → Literacy Score	0.089	0.088	
Depressive symptoms			-0.001
Support			0.003
Depressive symptoms → Support			0.000
Co-parenting communication → Social Skills	0.057*	0.043	
Depressive symptoms			0.000
Support			0.014**
Depressive symptoms → Support			0.000
Co-parenting conflict → Social Skills	-0.044***	-0.043***	
Depressive symptoms			-0.001
Support			0.000
Depressive symptoms → Support			0.000
Shared decision-making → Social Skills	0.013*	0.013*	
Depressive symptoms			0.000
Support			0.000
Depressive symptoms → Support			0.000

Note. Perceptions of co-parenting communication, co-parenting conflict, and shared decision-making were all reported by mothers.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

directly linked to children's social skills. These findings reinforce the specificity of parenting processes in child functioning (Amato & Fowler, 2002; Crockenberg & Litman, 1990). Together, frequent communication and shared decision-making may signal a family system that is coordinated and works jointly to promote child wellbeing. In this context, children may feel secure, more able to learn, and explore.

Consistent with our hypothesis, we found that parents who reported high levels of coparental conflict had children who exhibited fewer social skills because mothers reported more depressive symptoms. These findings are consistent with other studies

1 that suggest that mental health suffers in the context of conflicted family relation-  
2 ships (Field, 1999).

3 Our findings are also noteworthy because the associations between coparenting  
4 and mothers' supportiveness, maternal mental health, and child outcomes were similar  
5 for both married and cohabiting couples. We had initially surmised that because  
6 married individuals function as shared entities to a greater extent than do cohabiting  
7 couples, the coparenting relationship would have a stronger effect on parent and child  
8 outcomes. This was not the case. Although there were some differences in the ways  
9 that married and cohabiting couples function (e.g., sharing resources), our findings  
10 suggest that the pathways from coparenting to parenting, and child outcomes was  
11 similar for both types of families. The ways in which cohabiting and married parents  
12 resemble each other merits further research. In a national study of infants and their  
13 fathers, Cabrera and colleagues found no difference between cohabiting and married  
14 fathers engaged in the frequency with which they engaged in cognitive stimulating  
15 activities with their infants, but differences in the frequency with which they engaged  
16 in caregiving and physical play, favoring cohabiting fathers (Cabrera et al., 2011).

17 The results of this study must be interpreted in light of its limitations. First, we did  
18 not have longitudinal information on coparenting experiences across the life course  
19 for both mothers and fathers (see McHale, Waller, & Pearson, 2012). In addition, we  
20 would have liked to have considered effects of *change* in co-parental conflict between 9  
21 and 24 months on child outcomes at 24 months. Unfortunately, the surveys available  
22 had only a limited number of items measuring coparenting, which precluded use of a  
23 change score. Relatedly, as this was a secondary analysis, we necessarily had to con-  
24 struct the coparenting measure from available items. It is, hence, possible that the  
25 measure of co-parental conflict that we used may not adequately capture frequency,  
26 nature, and content of such conflict. Finally, our study focused on two-parent families.  
27 Coparenting effects may differ in other family contexts or with other caregivers.

28 Despite our study limitations, there are a number of strengths of this study. Unlike  
29 prior studies that have relied on small, select samples, the nationally representative  
30 longitudinal data on young children and their parents examined in this study allow to  
31 make generalizations. These findings elucidate connections among family relation-  
32 ships and preschool children's school readiness as well as the pathways (maternal  
33 supportiveness) through which such associations can be traced. Moreover, unlike  
34 prior research that has focused primarily on marital functioning, this report focuses  
35 on conflict, communication and shared decision-making in the coparenting relation-  
36 ship. Likewise, its focus on unmarried two parent resident samples rather than on  
37 divorced nonresidential parents is new. The study also included many variables (such  
38 as positive aspects of coparenting) typically unaccounted for in prior studies, allowing  
39 examination of the potential associations between these factors and children's school  
40 readiness. In addition, this study uses child academic measures based on direct  
41 assessment rather than on parent perceptions of the child's skills.

42 Future work on coparenting will benefit from examining how other indicators of co-  
43 parenting affect a variety of different child outcomes over time, including health and  
44 safety outcomes. Studies of the associations between quality and coparenting in vari-  
45 ous subpopulations, on children's school readiness will also be of interest. In terms of  
46 policy implications, our study provides evidence that coparenting conflict, across fam-  
47 ily structures, is associated with children's academic and social skills. Assuming that  
48 the family is a system of interdependent individuals provides practitioners the

1 opportunity to work with both parents to affect coparental relationships and in turn,  
 2 the family as a whole. Programs that address parenting strategies should focus on  
 3 how couples, married and cohabiting, can foster a positive coparental alliance around  
 4 decisions regarding a child. Findings from this study should also heighten practi-  
 5 tioner awareness of the importance of family-level relationships, such as coparenting  
 6 to young children's wellbeing; considering only parenting behaviors may be insuffi-  
 7 cient to improve child outcomes.

## 10 REFERENCES

- 11 Amato, P.R., & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity.  
 12 *Journal of Marriage and Family*, 64, 703–716.
- 13 American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental dis-*  
 14 *orders* (4<sup>th</sup> Ed. DSM-IV). ????: ????. **7, 8**
- 15 Arbuckle, J.L. (1996). Full information estimation in the presence of incomplete data. In G.A.  
 16 Marcoulides & R.E. Schumacker (Eds.), *Advanced structural equation modeling: Issues and*  
 17 *techniques* (pp. 243–277). Mahwah, NJ: Lawrence Erlbaum.
- 18 Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting in families with tod-  
 19 dler boys: Spousal differences and daily hassles. *Child Development*, 66, 629–642.
- 20 Belsky, J., & Fearon, R. (2004). Exploring marriage-parenting typologies and their contex-  
 21 tual antecedents and developmental sequelae. *Development and Psychopathology*, 16,  
 22 501–523.
- 23 Brady-Smith, C., O'Brien, C., Berlin, L., & Ware, A. (1999). Early Head Start Research and  
 24 Evaluation Project 24-month child-parent interaction rating scales for the 3-bag assessment.  
 25 Unpublished manuscript. New York: Center for Children and Families, Teachers College,  
 26 Columbia University.
- 27 Bronte-Tinkew, J., & Horowitz, A. (2010). Unmarried, nonresident fathers' perceptions of their  
 28 coparenting after a nonmarital birth: The correlates and determinants. *Journal of Family*  
 29 *Issues*, 31, 31–65.
- 30 Brown, B., Weitzman, M., Bzostek, S., Aufseeser, D., Kavanaugh, M., Bagley, S. et al. (2004).  
 31 Parental Health. In *Early child development in social context: A chartbook* (pp. 57–61). New  
 32 York: Commonwealth Fund.
- 33 Burton, L., & Hardaway, C. (2012) Low-income "other mothers" to their romantic partners' chil-  
 34 dren: Women's coparenting in multiple partner fertility relationships, *Family Process*, 51,  
 35 ???-???. **9**
- 36 Cabrera, N., Fagan, J., Wight, V., & Schadler, C. (2011). The influence of mother, father, and  
 37 child risk on parenting and children's cognitive and social behaviors. *Child Development*, 82,  
 38 1985–2005.
- 39 Cabrera, N., Shannon, J., & LaTaillade, J. (2009). Predictors of coparenting in Mexican Ameri-  
 40 can families and direct effects on parenting and child social emotional development. *Infant*  
 41 *Mental Health Journal*, 30, 523–548.
- 42 Cabrera, N., Shannon, J., West, J., & Brooks-Gunn, J. (2006). Parental interactions with Latino  
 43 infants: Variation by country of origin and English proficiency. *Child Development*, 74,  
 44 1190–1207.
- 45 Caldera, Y.M., & Lindsey, E.W. (2006). Coparenting, mother-infant interaction, and infant-par-  
 46 ent attachment relationships in two-parent families. *Journal of Family Psychology*, 20,  
 47 275–283.
- 48 Carlson, M.J., & Högnäs, R.S. (2011). Coparenting in fragile families: Understanding how par-  
 ents work together after a nonmarital birth. In J.P. McHale & K.M. Lindahl (Eds). *Coparent-*  
*ing: A conceptual and clinical examination of family systems* (pp. ???-???). Washington, DC:  
 APA. **10**



- 1 Carlson, M.J., McLanahan, S.S., & Brooks-Gunn, J. (2008). Coparenting and nonresident  
2 fathers' involvement with young children after a nonmarital birth. *Demography*, *45*, 461–488. **11**
- 3 Cohn, J.F., Matias, R., Tronick, E.Z., Connell, D., & Lyons-Ruth, K. (1986). Face-to-face interactions  
4 of depressed mothers and their infants. In E.Z. Tronick & T. Field (Eds.), *Maternal  
5 depression and infant disturbance* (pp. 31–45). San Francisco, CA: Jossey-Bass. **12**
- 6 Cox, M.J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, *48*, 243–267.
- 7 Cox, M.J., & Paley, B. (2003). Understanding families as systems. *Current Directions in Psychological  
8 Science*, *12*, 193–196. **13**
- 9 Crockenberg, S., & Litman, C. (1990). Autonomy as competence in 2-year-olds: Maternal correlates  
10 of child defiance, compliance, and self-assertion. *Developmental Psychology*, *26*,  
961–971.
- 11 DeGangi, G.A., Poisson, S., Sickel, R.Z., & Weiner, A.S. (1995). *Infant/Toddler Symptom  
12 Checklist: A screening tool for parents*. San Antonio, TX: Therapy Skill Builders.
- 13 Dorsey, S., Forehand, R., & Brody, G. (2007). Coparenting conflict and parenting behavior in  
14 economically disadvantaged single parent African American families: The role of maternal  
15 psychological distress. *Journal of Family Violence*, *22*, 621–630.
- 16 Eggebeen, D.J. (2005). Cohabitation and exchanges of support. *Social Forces*, *83*, 1097–1110.
- 17 Elgar, F.J., McGrath, P.J., Waschbusch, D.A., Stewart, S.H., & Curtis, L.J. (2004). Mutual  
18 influences on maternal depression and child adjustment problems. *Clinical Psychology  
19 Review*, *24*, 441–459.
- 20 Emery, R.E., Fincham, F.D., & Cummings, E.M. (1992). Parenting in context: Systemic thinking  
21 about parental conflict and its influence on children. *Journal of Consulting and Clinical  
22 Psychology*, *60*, 909–912. **14**
- 23 Fagan, J., & Lee, Y. (2011). Do coparenting and social support have a greater effect on adolescent  
24 fathers than adult fathers? *Family Relations*, *60*, 247–258. **15**
- 25 Fagan, J., & Palkovitz, R. (2011). Coparenting and relationship quality effects on father engagement:  
26 Variations by residence, romance. *Journal of Marriage and Family*, *73*, 637–653.
- 27 Feinberg, M.E. (2003). The internal structure and ecological context of coparenting: A framework  
28 for research and intervention. *Parenting: Science and Practice*, *3*, 95–131.
- 29 Feinberg, M.E., Kan, M.L., & Hetherington, E.M. (2007). The longitudinal influence of coparenting  
30 conflict on parental negativity and adolescent maladjustment. *Journal of Marriage  
31 and Family*, *69*, 687–702.
- 32 Field, T. (1999). Longitudinal follow-up of infants of depressed mothers. *Adolescence*, *??*, ??–??. **16**
- 33 Field, T., Hernandez-Reif, M., & Feijo, L. (2002). Breastfeeding in depressed mother-infant  
34 dyads. *Early Child Development and Care*, *172*, 539–545.
- 35 Gaskin-Butler, V., Engert, T., Markievitz, M., Swenson, C., & McHale, J. (2012). Prenatal representations  
36 of coparenting in unmarried African American mothers. *Family Process*, *51*,  
37 ???–???. **17**
- 38 Hofferth, S.L., & Anderson, K.G. (2003). Are all dads equal? Biology versus marriage as a basis  
39 for paternal investment. *Journal of Marriage and Family*, *65*, 213–232.
- 40 Katz, L., & Woodin, E. (2002). Hostility, hostile detachment, and conflict engagement in marriages:  
41 Effects on child and family functioning. *Child Development*, *73*, 636–651.
- 42 Kessler, R.C., Andrews, G., Mroczek, D., Utsun, B., & Wittchen, H. (1998). The World Health  
43 Organization Composite International Diagnostic Interview Short-Form (CIDI-SF). *International  
44 Journal of Methods in Psychiatric Research*, *7*, 171–185.
- 45 Lindsey, E.W., Caldera, Y., & Colwell, M. (2005). Correlates of coparenting during infancy.  
46 *Family Relations*, *54*, 346–359.
- 47 Margolin, G., Gordis, E.B., & John, R.S. (2001). Coparenting: A link between marital conflict  
48 and parenting in two-parent families. *Journal of Family Psychology*, *???*, 3–21. **18**
- 49 McHale, J.P., Khazan, I., Erera, P., Rotman, T., DeCoursey, W., & McConnell, M. (2002).  
50 Coparenting in diverse family systems. In M.H. Bornstein (Ed.), *Handbook of parenting* (2nd  
51 ed., Vol. 3, pp. 75–108). Mahwah, NJ: Lawrence Erlbaum Associates.

- 1 McHale, J.P., Kuersten-Hogan, R., & Rao, N. (2004). Growing points for coparenting theory and  
2 research. *Journal of Adult Development, 11*, 221–234.
- 3 McHale, J.P., & Lindahl, K.M. (Eds.) (2011). *Coparenting: A conceptual and clinical examination*  
4 *of family systems*. Washington, DC: APA.
- 5 McHale, J.P., & Rasmussen, J.L. (1998). Coparental and family group-level dynamics during  
6 infancy: Early family precursors of child and family functioning during preschool. *Develop-*  
7 *ment and Psychopathology, 10*, 39–59. **19**
- 8 McHale, J., Waller, M., & Pearson, J. (2012). Coparenting interventions for fragile families:  
9 What do we know and where do we need to go next? *Family Process, 51*, ???–???. **20**
- 10 Merrell, K. (2003). *PKBS–2: Preschool and Kindergarten Behavior Scales* (2<sup>nd</sup> Ed.). Austin, TX:  
11 Pro-Ed.
- 12 Muthén, L.K., & Muthén, B.O. (1998-2009). *Mplus version 5.1* (5<sup>th</sup> ed.). Los Angeles, CA:  
13 Muthén & Muthén.
- 14 Muthén, L.K., & Muthén, B.O. (2006). *Mplus user's guide* (4<sup>th</sup> ed.). Los Angeles: Muthén &  
15 Muthén.
- 16 Muthén, L.K., & Muthén, B.O. (2007). *MPlus user's guide*. Los Angeles, CA: Muthén & Muthén.
- 17 Nock, S.L. (1995). A comparison of marriages and cohabiting relationships. *Journal of Family*  
18 *Issues, 16*, 53–76.
- 19 Nord, C., Edwards, B., Hilpert, R., Branden, L., Andreassen, C., Elmore, A. et al. (2004). *User's*  
20 *manual for the ECLS-B nine-month restricted-use data file and electronic codebook*. Wash-  
21 ington, DC: National Center for Educational Statistics, Institute of Education Sciences, U.S.  
22 Department of Education.
- 23 Petterson, S.M., & Albers, A.B. (2001). Effects of poverty and maternal depression on early child  
24 development. *Child Development, 72*, 1794–1813.
- 25 Raikes, H.A., & Thompson, R.A. (2005). Links between risk and attachment security: Models of  
26 influence. *Applied Developmental Psychology, 26*, 440–455.
- 27 Snow, K., Thalji, L., Derecho, A., Wheelless, S., Lennon, J., Kinsey, S. et al. (2007). *Early child-*  
28 *hood longitudinal study, birth cohort (ECLS-B), preschool year data file user's manual*  
29 *(2005-06) (NCES 2008-024)*. Washington, DC: National Center for Education Statistics,  
30 Institute of Education Sciences, U.S. Department of Education.
- 31 Tourangeau, K., Nord, C., & Atkins-Burnett, S. (2006). *Early childhood longitudinal study, kin-*  
32 *dergarten class of 1998–99 (ECLS-K), combined user's manual for the ECLS-K fifth-grade*  
33 *data files and electronic codebooks (NCES 2006–032)*. Washington, DC: National Center for  
34 Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- 35 Van Egeren, L.A. (2004). The development of the coparenting relationship over the transition to  
36 parenthood. *Infant Mental Health Journal, 25*, 453–477.
- 37 Van Egeren, L.A., & Hawkins, D.P. (2004). Coming to terms with coparenting: Implications of  
38 definition and measurement. *Journal of Adult Development, 11*, 165–178.
- 39 Vygotsky, L.S. (1979). consciousness as a problem in the psychology of behaviour. *Soviet Psychol-*  
40 *ogy, 17*, 3–35.
- 41 Walker, S.P., Wachs, T.D., Grantham-McGregor, S., Black, M.M., Nelson, C.A., Huffman, S.L.  
42 et al. (2011). Inequality in early childhood: Risk and protective factors for early child devel-  
43 opment. *The Lancet, 378*, 1325–1338.
- 44 Waller, M. (2012) Cooperation, conflict, or disengagement? Coparenting styles and father  
45 involvement in fragile families. *Family Process, 51*, ???–???. **21**
- 46 Walters, E.E., Kessler, R.C., Nelson, C.B., & Mroczek, D. (2002). *Scoring the World Health*  
47 *Organization's Composite International Diagnostic Interview Short Form (CIDI-SF)*. ???:  
48 ????. **22**
- 49 Wilk, K.A., Bernhardt, E., & Noack, T. (2009). A study of commitment and relationship qual-  
50 ity in Sweden and Norway. *Journal of Marriage and Family, 71*, 465–477.
- 51 World Health Organization. (1990). *Composite International Diagnostic Interview, version 1.0*.  
52 Geneva: World Health Organization.

# Author Query Form

Journal: FAMP  
Article: 1408

Dear Author,

During the copy-editing of your paper, the following queries arose. Please respond to these by marking up your proofs with the necessary changes/additions. Please write your answers on the query sheet if there is insufficient space on the page proofs. Please write clearly and follow the conventions shown on the attached corrections sheet. If returning the proof by fax do not write too close to the paper's edge. Please remember that illegible mark-ups may delay publication.

Many thanks for your assistance.

Query reference	Query	Remarks
1	AUTHOR: Please provide department for affiliations 2 & 3.	
2	AUTHOR: Please check author names.	
3	AUTHOR: Please provide complete mailing address for the corresponding author.	
4	AUTHOR: Introduction heading has been included please check and approve.	
5	AUTHOR: Radloff, 1977 has not been included in the Reference List, please supply full publication details.	
6	AUTHOR: Ross, Mirowsky, & Huber, 1983 has not been included in the Reference List, please supply full publication details.	
7	AUTHOR: American Psychiatric Association (1994) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
8	AUTHOR: Please provide the name and city location of publisher for American Psychiatric Association (1994).	
9	AUTHOR: Please provide page range for Burton & Hardaway (2012).	

10	AUTHOR: Please provide the page range for Carlson & Högnäs (2011).	
11	AUTHOR: Carlson et al. (2008) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
12	AUTHOR: Cohn et al. (1986) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
13	AUTHOR: Cox and Paley (2003) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
14	AUTHOR: Emery et al. (1992) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
15	AUTHOR: Fagan and Lee (2011) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
16	AUTHOR: Please provide the volume and page range for Field (1999).	
17	AUTHOR: Please provide the page range for Gaskin-Butler et al. (2012).	
18	AUTHOR: Please provide the volume for Margolin et al. (2001).	
19	AUTHOR: McHale and Rasmussen (1998) has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
20	AUTHOR: Please provide the page range for McHale et al. (2012).	
21	AUTHOR: Please provide the page range for Waller (2012).	
22	AUTHOR: Please provide the name and city location of publisher for Walters et al. (2002).	

23

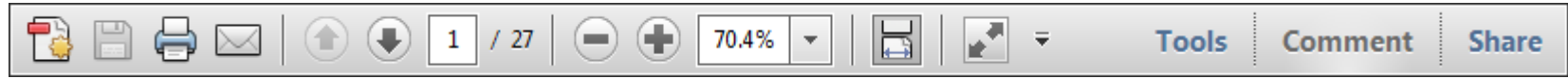
AUTHOR: Table 2 has not been mentioned in the text. Please cite the table in the relevant place in the text.

USING e-ANNOTATION TOOLS FOR ELECTRONIC PROOF CORRECTION

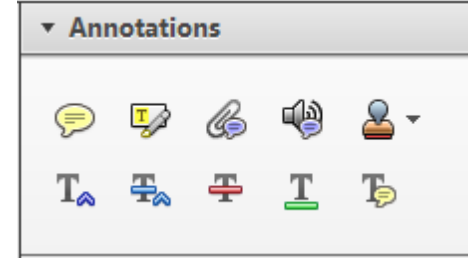
Required software to e-Annotate PDFs: Adobe Acrobat Professional or Adobe Reader (version 8.0 or above). (Note that this document uses screenshots from Adobe Reader X)

The latest version of Acrobat Reader can be downloaded for free at: <http://get.adobe.com/reader/>

Once you have Acrobat Reader open on your computer, click on the [Comment](#) tab at the right of the toolbar:



This will open up a panel down the right side of the document. The majority of tools you will use for annotating your proof will be in the [Annotations](#) section, pictured opposite. We've picked out some of these tools below:



**1. Replace (Ins) Tool – for replacing text.**



Strikes a line through text and opens up a text box where replacement text can be entered.

**How to use it**

- Highlight a word or sentence.
- Click on the [Replace \(Ins\)](#) icon in the Annotations section.
- Type the replacement text into the blue box that appears.

standard framework for the analysis of microeconomics. Nevertheless, it also led to the emergence of a new paradigm of strategic behaviour. The number of competitors in the industry is that the structure of the industry is a key component of the main components of the industry. At the level, are expected to be important works on the industry by Shiraz (M henceforth) we open the 'black b



**2. Strikethrough (Del) Tool – for deleting text.**



Strikes a red line through text that is to be deleted.

**How to use it**

- Highlight a word or sentence.
- Click on the [Strikethrough \(Del\)](#) icon in the Annotations section.

there is no room for extra profits and the number of competitors are zero and the number of (net) values are not determined by Blanchard and ~~Kiyotaki~~ (1987), perfect competition in general equilibrium. The effects of aggregate demand and supply in the classical framework assuming monopoly are an exogenous number of firms

**3. Add note to text Tool – for highlighting a section to be changed to bold or italic.**



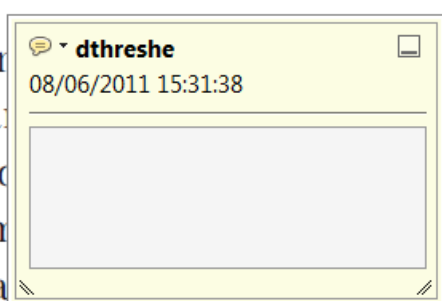
Highlights text in yellow and opens up a text box where comments can be entered.

**How to use it**

- Highlight the relevant section of text.
- Click on the [Add note to text](#) icon in the Annotations section.
- Type instruction on what should be changed regarding the text into the yellow box that appears.

dynamic responses of mark ups consistent with the **VAR** evidence

sation y Ma and on n to a stent also with the demand-



**4. Add sticky note Tool – for making notes at specific points in the text.**

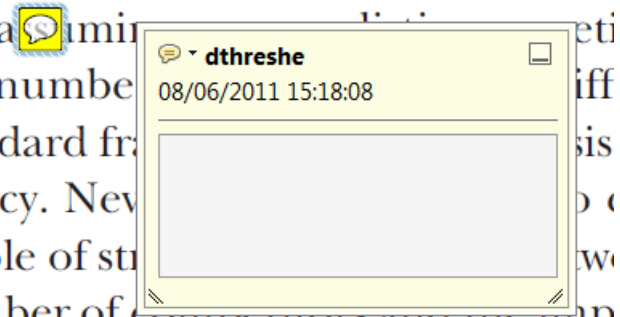


Marks a point in the proof where a comment needs to be highlighted.

**How to use it**

- Click on the [Add sticky note](#) icon in the Annotations section.
- Click at the point in the proof where the comment should be inserted.
- Type the comment into the yellow box that appears.

and supply shocks. Most of the number of competitors and the impact is that the structure of the sector



USING e-ANNOTATION TOOLS FOR ELECTRONIC PROOF CORRECTION

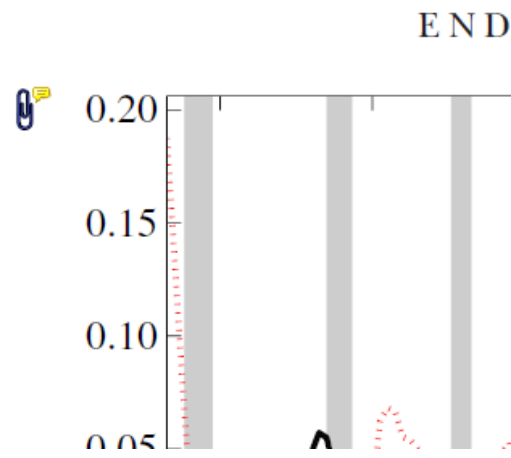
**5. Attach File Tool – for inserting large amounts of text or replacement figures.**



Inserts an icon linking to the attached file in the appropriate place in the text.

**How to use it**

- Click on the [Attach File](#) icon in the Annotations section.
- Click on the proof to where you'd like the attached file to be linked.
- Select the file to be attached from your computer or network.
- Select the colour and type of icon that will appear in the proof. Click OK.



**6. Add stamp Tool – for approving a proof if no corrections are required.**

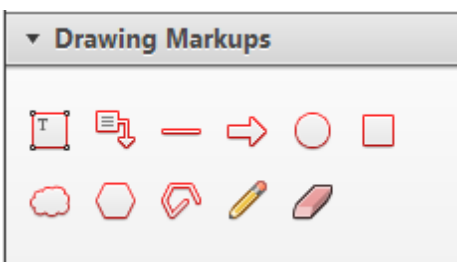


Inserts a selected stamp onto an appropriate place in the proof.

**How to use it**

- Click on the [Add stamp](#) icon in the Annotations section.
- Select the stamp you want to use. (The [Approved](#) stamp is usually available directly in the menu that appears).
- Click on the proof where you'd like the stamp to appear. (Where a proof is to be approved as it is, this would normally be on the first page).

of the business cycle, starting with the  
 on perfect competition, constant ret  
 production. In this environment goods  
 extra profits and the market for marke  
 he market for goods is determined by the model. The New-Key  
 otaki (1987), has introduced produc  
 general equilibrium models with nomin  
 and... Most of this literature

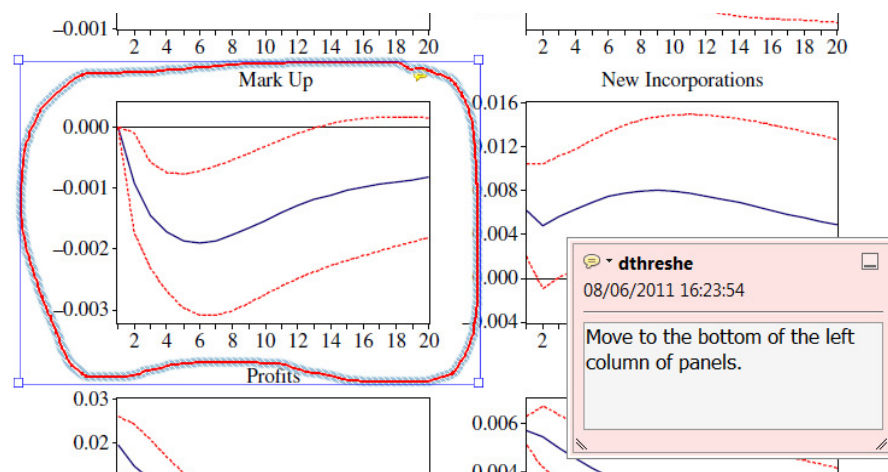


**7. Drawing Markups Tools – for drawing shapes, lines and freeform annotations on proofs and commenting on these marks.**

Allows shapes, lines and freeform annotations to be drawn on proofs and for comment to be made on these marks..

**How to use it**

- Click on one of the shapes in the [Drawing Markups](#) section.
- Click on the proof at the relevant point and draw the selected shape with the cursor.
- To add a comment to the drawn shape, move the cursor over the shape until an arrowhead appears.
- Double click on the shape and type any text in the red box that appears.



For further information on how to annotate proofs, click on the [Help](#) menu to reveal a list of further options:

