New school, new child care: The role of child care during the transition to school and child well being

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Kindergarten is a nearly universal experience for young children in the United States. Over 97% of American children attend kindergarten (National Center for Education Statistics, 2000), and it serves as an important transition between preschool, child care, or home settings and formal schooling (West, Hausken, Chandler, & Collins, 1992). While kindergarten marks the transition to formal schooling, the vast majority of children experience formal center-based arrangements prior to school entry, either formal child care or preschool (West, Denton, & Germino-Hausken, 2000).

However, for almost half of all children, this transition is not merely moving from preschool or child care to kindergarten, but rather to a combination of kindergarten and out of school non-parental child care. These children face the challenge of simultaneously navigating their new kindergarten environment and their non-parental child care setting. Unlike their counterparts who attend kindergarten but not child care, these children spend time in three different settings throughout their days, each placing different expectations and demands on them. Understanding how continuity in non-parental child care during the transition to school relates to child well being is important for school readiness and child care policy and practice. This study aims to examine the role that child care plays in a child's transition to school, using a nationally representative sample of American kindergartners (ECLS-K). This study examines particular subgroups of children who might benefit more from policies and programs targeted at easing their transitions to school, leading to subsequent school success.

Background

Transactional and bioecological developmental theories suggest that child development is the product of the interaction of the child with these multiple contexts (Bronfenbrenner & Ceci, 1994; Sameroff, 1994). As children participate in different environments, their characteristics and predispositions affect how their parents, caregivers, teachers, and peers respond and relate to them. Likewise, the characteristics of parents, caregivers, teachers, and peers along with their own predispositions affect both the environment and the child. This complex interplay between children and their environments affects their developmental trajectories (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 1998). Kindergarten is an important context in most children's lives. As children experience school for the first time, they face new intellectual and social demands to which they must adapt and negotiate over the course of the transition year.

Beyond the importance of kindergarten as a developmental context, the transition to school itself serves as an opportunity for both risk and resilience. Research suggests that early school experiences are important for later school success (Pianta & Cox, 1999; Rimm-Kaufman & Pianta, 2000); and thus, a successful transition to school has important implications for later child outcomes. Elementary school teachers report that nearly half of children entering school had some trouble transitioning to kindergarten (Rimm-Kaufman, Pianta, & Cox, 2000). Experiencing school for the first time, children develop a new sense of autonomy and are faced with new expectations and demands (Pianta & Cox, 1999). Teachers and peers become increasingly important, and failure at school or in peer groups can lead to frustration (Eccles,

1999). The developmental tasks of school-age children, even young school-age children, are different from younger children. Children are expected to sit still in the classroom, pay attention to the teacher, and have the social skills to interact with peers. Kindergarten serves as an important transition period from early childhood to middle childhood.

Early childhood education and care have been consistently linked to school readiness (Magnuson et al, 2004), and high quality child care has been shown to ease the transition to school (Burchinal et al.). However, little research has systematically examined the role that continuity in non-parental care over the transition to school relates to school readiness and child well being. While some children move from home to school during this period, other children are moving from preschool or child care to kindergarten, and still others, move from non-parental care to a combination of kindergarten and non-parental care. Continuity in their non-parental care might help some children successfully transition to school, while discontinuity, or changes, in non-parental care might make the transition to school more difficult. This research will examine how continuity and discontinuity in non-parental care across the transition to school relate to child academic and socio-emotional functioning during the transition to school.

Data

Data used in this analysis come from the Early Childhood Longitudinal Study-Kindergarten (ECLS-K) cohort. Designed to focus on children's early school experiences, the ECLS-K follows a nationally representative sample of 21,260 children who entered kindergarten in 1998-99. This paper uses data collected in the fall and spring of kindergarten. Data come from multiple sources including direct assessments of children, interviews with parents, and surveys of teachers and school administrators.

Sample

Table 1 provides descriptive statistics for the analytic sample. The table shows the means and standard deviations for demographic variables for both the full sample (n=14,075) and for the sample of children who spent time in non-parental care during the kindergarten year (n=7,305).

Measures

Child care. The primary independent variables of interest are whether or not the child attends the same type of child care during the year prior to and during the kindergarten year. In the fall of kindergarten, parents were asked about their child's regular weekly child care arrangements during the kindergarten year and prior to school entry.

Child outcomes. The outcomes of interest are children's academic and socioemotional skills and behaviors in measured in the fall of kindergarten[1] as measured by teacher reports and direct child assessments. Children were given direct assessments in both math and reading in both the fall and spring of kindergarten.

For socioeomotional skills and behaviors, teachers assessed all sampled children in their classrooms in both the fall and spring of kindergarten using the Social Rating Scale (SRS)

[1] I will also examine the outcomes measured in the spring of kindergarten.

designed specifically for the ECLSK.[2] The SRS is a self-administered questionnaire on which teachers rated children in five domains: self control, interpersonal skills, approaches to learning, and externalizing and internalizing problem behaviors. Teachers rated each of the items within a domain on a four point scale 1= "never" and 4= "very often". The reported reliabilities of these five scales range from .79 to .89.

The four item self control scale indicates a child's ability to control behavior by respecting the property rights of others, controlling temper, accepting peer ideas for group activities and responding appropriately to pressure from peers. The five item interpersonal skill scale rates the child's ability to form and maintain friendships, get along with people who are different, comfort or help other children, express feelings, ideas and opinions in positive ways, and show sensitivity to the feelings of others. The approaches to learning scale includes six items that measure the child's attentiveness, task persistence, eagerness to learn, learning independence, flexibility and organization. The five item externalizing problem behaviors scale rates the frequency with which a child argues, fights, gets angry, acts impulsively, and disturbs ongoing activities. The four item internalizing problem behavior scale rates the child's anxiety loneliness, low self-esteem, and sadness.

Covariates. Given that parent's choice of child care is influenced by both parental and child characteristics (Fuller et al., 1996; Singer et al., 1998), the analysis will include a wide ranging set of family and child demographic and background characteristics as controls. Child background characteristics will include age, birth weight, race/ethnicity, and overall health. Home environment characteristics include number of siblings, household composition, and number of books in the home. Parental characteristics include mother's age at first birth and child's birth, maternal and paternal education, maternal and paternal occupation prestige score, and income. Finally, models also include controls for parental expectations and neighborhood characteristics.

Analysis Plan

The analysis will estimate the relationship between the continuity and discontinuity of child care during the transition to kindergarten and children's academic and socioemotional well being using multivariate OLS. Because the relationship between child care and child well being might be different for different groups of children, I also examine the relationship between child care and the transition to school for important subgroups of children, by race (white, Hispanic, Black), sex, and income. Additionally, I test whether the relationship might vary by the type of kindergarten (full- or part-day) children attend.

Because children are not randomly assigned to non-parental child care, both observed and unobserved characteristics of the teacher, child and family could bias any estimates. Two important concerns in this analysis are that teacher reports are the primary source of child socioemotional measures and the sampling design included multiple children per kindergarten classroom. Thus, teachers who rate all sampled children in their classroom lower, or higher, on the outcomes of interest could influence the estimate of the relationship between child care and

[2] The ECLS Users' Manual indicates that the SRS used in the ECLS is adapted from the SRSS; however, no item-level information is available in the dataset.

the transition to school. For this reason, I control for teacher, or classroom, fixed effects, capitalizing on the within classroom variation.

In addition to using teacher fixed effects, I also include as many child and family background variables as possible to try to eliminate any omitted variable bias. Given that parent's choice of child care is influenced by both parental and child characteristics (Fuller et al., 1996; Singer et al., 1998), all models will include the wide ranging set of family background and child control variables.

Table 1.

Descriptive Statistics of Variables of Interest for the Full Sample and Children in Child Care

	Full Sample		Children in Child Care			
Variable	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Fall of Kindergarten child characteristics						
Test Scores						
Math	20.29	7.34	20.12	7.01	6.90	59.82
Reading	22.86	8.62	22.62	8.14	10.08	69.66
Kindergarten child care[a]						
Proportion in child care:						
Center child care	0.21	0.41	0.40	0.49	0	1
Relative child care	0.22	0.41	0.42	0.49	0	1
Non-relative child care	0.12	0.33	0.24	0.43	0	1
Half Day Kindergarten	0.44	0.50	0.46	0.50	0	1
Child care arrangements (pre-K)						
Relative pre-school care	0.13	0.34	0.21	0.41	0	1
Center-Based pre-school care	0.45	0.50	0.42	0.49	0	1
Non-Relative pre-school care	0.11	0.31	0.16	0.37	0	1
Head Start	0.08	0.28	0.06	0.24	0	1
Baseline Child Characteristics						
Race						
Black	0.14	0.35	0.17	0.38	0	1
Hispanic	0.12	0.33	0.13	0.33	0	1
White	0.63	0.48	0.61	0.49	0	1
Asian	0.04	0.20	0.04	0.20	0	1
Other	0.06	0.23	0.05	0.23	0	1
Female	0.49	0.50	0.49	0.50	0	1

Notes. Full sample n=14,093
Children in kindergarten child care n=7,305
There are no significant differences between the means for the two groups of children except in the case of the kindergarten child care variables.
Maximum and minimum are identical for full sample and children in child care samples.
[a]Children can be in more than one type of child care.

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