Parental Work and Family Poverty Experience in the First Six Years of A Child's Life

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ABSTRACT

Using the Early Childhood Longitudinal Study–Birth Cohort in the United States, this paper examines the relationship between changes in parental work status and schedules and changes in families' poverty status during early childhood years. We focus on three dimensions of familial poverty: poverty depth, volatility in family income, and poverty duration. Regression results suggest that for both the mother and the father, repeated changes in work status between standard daytime hours, nonstandard hours, or not working significantly increased the probabilities of families experiencing 1) not only near-poor conditions, but also falling into poverty, if not deep poverty, 2) volatility in family income, and 3) longer durations of poverty. Working nonstandard hours brought another layer of instability and insecurity. Results in this paper shed new light on whether families' poverty or economic status change when parents move into or out of employment and into or out of nonstandard work schedules.

Keywords: ECLS-B; Early childhood; Nonstandard work schedules; Parental work; Poverty.

Parents around the world strive to provide a nurturing, enriching environment for their children, factors that research has shown are important for healthy development. A family's ability to foster optimal child development, however, depends heavily upon resources, both within and outside of the family. A large literature has provided strong evidence of how poverty experiences and instability can compromise child well-being (e.g., Duncan et al., 2017; Gennetian et al., 2015). In today's global labor market, the norm is no longer the 9:00 to 5:00 standard daytime work schedule, and a 40-hour work week is insufficient for many families to stay out of poverty. Parents are increasingly forced to work nonstandard schedules and are seeing more volatility in their work status, both of which may affect their ability to support healthy child development. Using a sample of more than 10,000 U.S. children, this study examines the association between changes in parental work status, including nonstandard work schedules, and a child's poverty experiences during early childhood. Examining these connections is crucial as family and child well-being relies heavily on economic resources in a world with increasing inequalities and disparities.

Scholarship has established that two types of factors are particularly important to young children's development: family resources and family processes (Gershoff et al., 2007; Duncan et al., 2011; Yeung et al., 2002). Family resources, particularly family income, parental education, and parental occupation, help cultivate young children's development. Family processes, such as parenting and the home environment, are equally important to child development. Family resources and family processes tend to reinforce one another: Poor family resources may compromise optimal family processes. For example, low family income can increase parental stress, which may translate into poor parent-child relationships (Conger and Conger, 2002; Conger et al., 2010; Conger and Elder, 1994). This article focuses on how changes in parental work status and work schedules might be related to family resources, which may carry important implications for family processes that, in turn, affect child development.

INSECURE PARENTAL WORK

Over the past 50 years, parental engagement with the labor market has changed substantially with large numbers of women not only entering but also staying in the workforce after marriage and childbirth. In recent decades, globalism, the growing importance of information technology, and the accompanying rise of the service economy in many industrialized countries have fundamentally altered working hours and work time requirements. Goods and services are produced and distributed across national borders and time zones. Long and nonday work hours are becoming the norm for many careers including working parents around the world (Presser et al., 2008). At least one-third of the labour force in Australia, Canada, the United Kingdom, and the United States have work schedules that fall outside of regular daytime hours (between 6am and 6pm, Monday through Friday) (OECD, 2007; Presser et al., 2008). Nonstandard work schedules—early mornings, evenings, nights, rotating or split shifts, irregular hours, or weekends—are particularly prevalent among workers in disadvantaged segments of the population, such as less educated workers (OECD, 2007). Low- and semi-skilled workers who serve the information economy during evening and night hours or on weekends struggle to make living wages with adequate benefits, and many work multiple jobs to make ends meet.

Parental work is also affected by the growing adoption in many industries of contingent work and unpredictable hours. For example, in both Australia (Australia Bureau of Statistics, 2018) and the United States (Golden, 2015; Henly and Lambert, 2014; Kalleberg, 2013), variable or unstable schedules are on the rise, particularly among part-time workers in industries like retail and food preparation, where schedules typically change every day and every week. Such jobs often require nonstandard work hours. The increasing adoption of variable scheduling practices to reduce labor costs and thus increase profits by employers has made family economic life volatile.

THE MULTIDIMENSIONAL POVERTY EXPERIENCE

Poverty has been shown to have profound effects on child and family well-being. No two families, however, experience poverty in precisely the same way. While many studies with samples from the United States use a binary variable to identify poverty based on the federal poverty line – a family is either "in poverty" or "not in poverty" — such a simple definition is inadequate to capture the nuances of children's poverty experiences. For example, the level or depth of poverty can vary, with some families hovering near the poverty line while others experience profound and long-term poverty. This article instead uses a three-pronged definition of children's poverty experiences that captures the depth and duration of poverty as well as volatility in family income.

Prior research supports our approach to poverty. Increasing numbers of children in the United States—including those in so-called middle-class families—have experienced volatile family income in recent decades and an increased likelihood of exposure to poverty (Dahl et al., 2011; Duncan, 1988; Gennetian et al., 2015). Since the 1980s, the rate of children living below the U.S. federal poverty threshold has held steady at approximately 20%, with higher rates among racial and ethnic minorities and foreign-born individuals (Semega et al., 2017). The share of children living in deep poverty (below 50% of the U.S. federal poverty line) has also been increasing steadily (Cuddy et al., 2015), with a recently estimated 3 million children living below $2 a day in the United States (Edin and Shafer, 2015). In addition, about another 20% of U.S. children live in near-poor conditions (income between 100% and 200% of the U.S. federal poverty line), meaning that a small change in a family's economic circumstances could push these children into poverty (Carrillo et al., 2017). Children living in near-poor conditions sometimes suffer more than those living in poverty (under 100% federal poverty line) because their family income is too high to allow them access to many important safety net benefits that can help bolster their well-being, such as food and nutrition support, health care, and child care subsidies. The duration of children's exposure to poverty also varies, with more than one-third of U.S. children experiencing poverty for at least one year during childhood and nearly 15% experiencing chronic

poverty lasting at least five years (Ratcliffe and McKernan, 2012). Children who stay poor for an extended period (e.g., five years or more) are more likely to remain poor for the rest of their lives (Ratcliffe and McKernan, 2012).

One of the primary factors that push children into poverty or pull them out is changes in household income, often caused by changes in parental employment status or weekly work hours (Duncan et al., 2017). Recent workplace practices like the use of on-call shifts or standby workers (with irregular hours), particularly among low-wage and low-skill jobs, have generated growing volatility in family income in the United States (Henly and Lambert, 2014; Lambert et al., 2014). Certainly, poverty brings risk to child well-being, but instability in a family's economic outlook can have an even more profound impact on child outcomes. Studies suggest that sizeable economic volatility, whether positive or negative, is associated with less consistent family investment in children, more parental stress, disrupted parent-child interactions, and increased child stress, all of which are strongly associated with compromised child well-being (Gennetian and Shafir, 2015; Gennetian et al., 2015). Parents' ability to provide *consistent* resources to nurture child development thus depends heavily on the stability and characteristics of their work status and work schedules. These diverse factors suggest a multidimensional and longitudinal approach to comprehend children's diverse poverty experiences.

This article thus examines how changes in parental work status and both maternal and paternal nonstandard work schedules might be associated with family poverty experiences during early childhood. This article draws attention to recent developments in both the labor market and in family economic life that threaten child development and could potentially increase intergeneration economic inequality.

METHODS

Data

Our data set comes from the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), a nationally representative survey collected by the National Center for Education Statistics (NCES). ECLS-B followed a cohort of approximately 10,700 children born in the United States in 2001 (Nord et al., 2004). Data were collected from parent interviews (mostly mothers) when children were about 9 months old (2001–2002), 2 years old (2003–2004), 4 years old (2005–2006, preschool age), and approximately 6 to 7 years old (2006–2007, kindergarten age). We used data from all four waves in our analyses. Attrition rates were about 8% at each wave, in line with a longitudinal study of this size. Due to budget constraints for the kindergarten wave, sample sizes decreased to about 7,700 by kindergarten (Snow et al., 2009). As detailed below, we examined missing data mechanisms and conducted multiple imputation to address the missing information. Based on ECLS-B reporting requirements, all reported sample sizes in this study are rounded to the nearest 50.

Participants

The final sample size is about 10,700 families with children. Most of the parents responding to the parent questionnaires were mothers (99%). More than 86% of the children had two parents living in the household. The average age of parents at childbirth was 27 (SD = 6.36) for mothers and 31 (SD = 7.02) for fathers. Approximately 46% of the children were non-Hispanic White, 16% were non-Hispanic Black, 18% were Hispanic, 13% were Asian, and 7% were from other racial/ethnic groups including mixed races. Approximately 30% of the children were from immigrant families (i.e., either one or both of the parents were foreign-born). The average annual household income was approximately US$49,677 at the 9-month wave and US$56,775 at kindergarten in constant 2001 dollars. Overall, the ECLS-B sample consists of families with diverse socioeconomic backgrounds.

Measures

Poverty depth. As one of the outcome variables, we measured poverty depth at kindergarten by comparing household income and total household size to the U.S. federal poverty threshold (e.g., US

$18,104 in 2001 and US $20,614 in 2006 for a household of four when data were collected at the 9-month and kindergarten waves, respectively). We created four poverty categories—not-poor, near-poor, poor, and extremely poor—defined as household income above 200%, above 100% but at or below 200%, above 50% but at or below 100%, and at or below 50% of the federal poverty threshold, respectively.

Income volatility. Income volatility was measured by calculating the number of income shocks that were 33% or larger at each wave by kindergarten. Following prior research (Wolf et al., 2014), we first determined whether a family had experienced increased, stable, or decreased income between two waves based on the two-year average income percentage change (calculated as $100 \times (Y_t - Y_{t-1})/Y_{average}$ with $Y_{average} = (Y_t + Y_{t-1})/2$). The direction of the income change was classified as an increase if the two-year average income percentage change was at or above 33%, and as a decrease if it was at or below –33%. Income was determined to be stable if the absolute value of the two-year average percentage change was less than 33%. Finally, the total number of increased or decreased income changes were counted with a range of zero to three from the 9-month to the kindergarten waves. We also conducted sensitivity checks by using varying thresholds for income change (25%, 30%, 45%, and 50%) and obtained results similar to those reported here.

Poverty duration. Poverty duration was calculated by counting the number of waves at which a family was exposed to poverty (i.e., either poor or extremely poor). Number of times rather than years was used to determine the number of spells of poverty exposure because data were not collected annually. The duration ranged from zero to four from the 9-month to the kindergarten waves.

Parental work schedules. We used both the mother's and father's work schedules collected at 9 months, 2 years, and preschool by asking respondent parents the hours they and the residential spouses/partners usually worked: a regular day time shift (between 6 a.m. and 6 p.m.), a regular evening shift (between 2 p.m. and midnight), a regular night shift (between 9 p.m. and 8 a.m.), a rotating shift

(changes periodically from days to evenings or nights), a split shift (two distinct periods each day), or some other shift. Mothers and fathers were coded as working nonstandard hours if they worked evenings, nights, rotating, split, or other shifts, and they were coded as working standard hours if they worked a regular daytime shift. Parents were coded as not working if they reported not working at a job or business for pay at the time of data collection.

To capture the changing patterns in parental work schedules, upon examining data in details, seven categories with decent sample sizes were created based on the recorded work schedules from 9 months to preschool: (1) never been working, (2) always working standard hours, (3) always working nonstandard hours, (4) switching between standard and nonstandard hours, (5) switching between standard hours and not working, (6) switching between nonstandard hours and not working, and (7) switching among not working, standard, and nonstandard hours. We did not further distinguish the changing patterns among specific nonstandard work schedules (e.g., changing from night to evening shift) due to small sizes; rather, we defined parents as "always working nonstandard hours" if their work hours across the three waves always fell within one of the nonstandard work schedule definitions. Of note, the information on parental work schedules was not collected monthly. Thus, the measures used here might undercount the changing patterns of parental work schedules because some parents may have changed work schedules during the non-interview periods.

Child, parent, and family characteristics. To reduce potential selection bias and omitted-variable bias, this analysis included an extensive set of child, parent, and family characteristics that have been shown in prior research to be associated with parental work and poverty status (e.g., Conger et al., 2010). Child characteristics include gender (1=male, 0=female), birth weight, prematurity, immigrant status, and race/ethnicity (i.e., non-Hispanic Black, Hispanic, Asian, others including mixed or multi-race, and non-Hispanic White as the reference group), whether the child was ever breast-fed, and whether the child attended center-based care the year before entering kindergarten. Parental and family

characteristics include mother's marital status at child birth, whether the mother lived with her biological mother/biological father until age 16, mother's and father's age at child birth, mother's and father's English proficiency, mother's and father's weekly work hours, whether the child lived in a single-parent family, the number of siblings, the number of people under age 18 in the household, parental highest education level, mother's and father's occupation (managerial and professional as the reference group, service, clerical, sales, and other), household income in 2001 constant dollars at baseline, urbanicity (urban vs. rural), and region of residence (e.g., South).

We controlled for parental occupation to account for the fact that parents who work in some types of jobs (e.g., service or sales) are more likely to work nonstandard hours (Presser, 2003). Similarly, we controlled for parents' weekly work hours because of the positive association found in previous empirical studies between part-time work hours and nonstandard work schedules (Presser, 2003). All analyses also considered family income at the 9-month wave so that the regression estimates reflect the changes that occurred between the 9-month and kindergarten waves. Although we controlled for a rich set of variables, our study does not address causality but rather detects associations over time.

Empirical Strategy

Rates of missing data for parental work status including work schedules were less than 1% for mothers and less than 6% for fathers from the 9-month to the preschool waves. Missing rates were generally below 5% for child, parent, and family characteristics. Significance tests of missing mechanisms (T-tests for continuous variables and Chi-squared for categorical variables) were conducted, and the results indicate that the missing data in our sample were missing at random (MAR), that is missingness is related to variables that were observed and unrelated to the missing values themselves (Allison, 2012). Multiple imputation was thus used to account for missing data with the ICE command in STATA and with 10 complete imputed datasets (Royston, 2009). MICOMBINE command was then used to combine the

10 imputed data sets, estimated separate regressions for each one, and obtained final parameter estimates reflecting averages across the regressions.

To examine how the changing patterns of parental work status, including work schedules from the 9-month to the preschool waves, were associated with a family's poverty experience and economic conditions by kindergarten, multinomial logistic regressions for the categorical poverty variable (i.e., poverty depth) and multivariate ordinary least squared (OLS) regressions for the continuous poverty variables (i.e., income volatility and poverty duration) were conducted. Marginal effects were computed from multinomial logit models to predict probabilities of being in each degree of poverty depth for parents with different work statuses because multinomial logit models involve many comparisons and the reported coefficients in these models can only provide the relative probability of poverty depth (e.g., poor vs. not-poor) for parents of varying work statuses. All analyses considered all sociodemographic variables described above in the Measures section and used robust standard errors.

RESULTS

Prevalence of Changes in Parental Work and Poverty Experiences

Raw data (not shown) indicated that more mothers were entering the labour force over time from 9-month (50%) to the preschool waves (61%), whereas about 8% of fathers did not work at all between the 9-month and preschool waves. At each of the three time points from the 9-month to the preschool waves, about 6% of mothers regularly worked evening shifts, 2% worked night shifts, 3-4% worked rotating shifts, and another 3% worked split shifts or irregular hours; the corresponding figures for fathers were 6%, 3%, 6-7%, and 5%. Due to small sample sizes for individual nonstandard work schedules and because our focus is changes in parental work status, the categories of nonstandard work schedules (i.e., evenings, nights, rotating or split shifts, or irregular hours) were combined under the category "nonstandard work hours or schedules" in all analyses hereafter.

Table 1 presents descriptive information on sociodemographic characteristics of all analyzed variables, along with maternal and paternal work schedules and outcomes. By the time children were preschoolers, about a quarter of the mothers had never worked, about another quarter of the mothers had worked standard daytime hours throughout the study period, and about a third of the mothers had worked nonstandard hours at some point over the previous four years. Almost half of the mothers had switched their work schedules between standard, nonstandard, and not working by the time their children were preschoolers, with most of them switching either between standard and nonstandard hours or between standard hours and not working. In contrast, about 60% of the fathers had worked standard daytime hours throughout the study period by the time their children were preschoolers. About one-third of the fathers changed their work schedules between the 9-month and preschool waves, with most of them switching between standard and nonstandard hours. Overall, by the time their children were preschoolers, about one-third of the fathers had worked nonstandard hours at some point during the previous four years.

In terms of poverty experience, slightly more than half of the children had never experienced poverty by the time they reached kindergarten. Conversely, about half of the children had experienced some degree of poverty (near poor, poor, or extremely poor) by the time they entered kindergarten. More than half of the children experienced income changes (either upward or downward) by kindergarten. Among those who did live in poverty (poor or extremely poor), they experienced an average of two out of four possible times in poverty between the 9-month and kindergarten waves.

Not surprisingly, children who had experienced some degree of poverty by kindergarten also tended to have relatively less advantaged family backgrounds (e.g., more likely to be low birth weight, in racial/ethnic minority groups, in single-parent families, and have lower family income at 9-months) than children who had not experienced poverty by kindergarten (raw data, not shown). The parents of

children who had experienced poverty also tended to work nonstandard hours or to have switched their work schedules at least once during the previous four years.

Poverty Depth

Table 2 presents results of a multinomial logit model estimating the likelihood of experiencing different degrees of poverty based on maternal and paternal work status. In all models, children who were not poor at kindergarten were the reference group. The table shows that, compared to families with mothers who worked standard daytime hours throughout the sample period, families whose mothers had some other work status during the sample period had a significantly higher likelihood of being near-poor or extremely poor at kindergarten versus never being poor at any wave. Children whose mothers never worked or who switched work schedules by preschool were also significantly more likely to be poor versus never having been poor at kindergarten. Similar results were found for paternal work schedules. Specifically, children whose fathers had switched their schedules between standard and nonstandard hours or between standard hours and not working had a significantly higher likelihood at kindergarten of being near-poor versus never having been poor. In addition, children whose fathers had never worked or had switched between three work statuses by preschool were significantly more likely at kindergarten to be poor or extremely poor versus never having been poor.

It is difficult to interpret the results from the multinomial logit model due to the multiple comparisons between groups. The magnitudes of the estimates shown in Table 2 can be ascertained from the probabilities shown in Table 3, which presents the likelihood of being in each degree of poverty by both the maternal and paternal work status based on the multinomial logit estimates presented in Table 2. In other words, Tables 3 allows us to examine which group of children had the highest likelihood of being in different degrees of poverty. These probabilities also indicate the direction of the total effects.

Table 3 shows that children whose mothers and children whose fathers worked standard daytime hours throughout the sample period had the highest likelihood of not being poor (having family income above 200% of U.S. federal poverty level) at kindergarten. In contrast, children whose mothers worked nonstandard hours at each of the four data waves were the most likely to be near-poor. Likewise, children whose fathers worked nonstandard hours at each of the four waves or who had switched between standard and nonstandard hours had over a quarter of likelihood of being near-poor. Children whose mothers or fathers switched their work schedules tended to have high, sometimes the highest, likelihood of being poor at kindergarten. Not surprisingly, children whose mothers and children whose fathers were not working at any of the four data waves had the highest likelihood of experiencing deep poverty at kindergarten. Notably, children whose mothers or fathers switched work schedules by the time their child reached preschool age were almost equally as likely to experience deep poverty at kindergarten. Overall, repeated changes in parental work schedules over the first four years of life of the children in our sample seem to have brought instability and economic insecurity. For example, changing maternal work status from “always standard” to “switching between not working, standard, and nonstandard” raises the probability of being “poor” from 0.10 to 0.15, a 50% increase. In contrast, changing maternal work status from “switching between not working, standard, and nonstandard” to “always standard” raises the probability of being “not poor” from 0.50 to 0.61, a 22% increase. Although children whose fathers worked standard daytime hours throughout the sample period had the highest likelihood of being not-poor at kindergarten, these children had about a 0.25 probability of being near-poor and another almost 0.15 probability of being either poor or extremely poor. In addition, children whose fathers either worked nonstandard hours throughout the sample period or switched between standard and nonstandard hours had a 0.22 and 0.26 probability, respectively, of being near-poor at kindergarten. These results highlight that many children of working parents in the United States, even parents with stable employment, face economic insecurity during their early childhood.

Poverty Volatility

Table 4 presents regression estimates of parental work schedules from the 9-month to the preschool wave on changes in family income by kindergarten. Results indicate that compared to children whose mothers worked standard daytime hours throughout the sample period, those whose mothers had never worked were significantly more likely to experience downward income changes by kindergarten. In addition, children whose mothers switched between working standard hours and not working were significantly more likely to experience downward income changes by kindergarten and thus were more likely to see more fluctuation in family income by kindergarten. Paternal work schedules show slightly different patterns. Compared to children whose fathers worked standard daytime hours throughout the sample period, those whose fathers switched between standard and nonstandard hours were significantly more likely to experience income changes, both upward and downward, by kindergarten. In addition, children whose fathers switched between standard hours and not working, between nonstandard hours and not working, and between all three work statuses experienced significantly more downward income changes and thus more volatility in income by kindergarten.

Poverty Duration

Table 5 presents regression estimates of maternal and paternal work schedules on the number of times children experienced poverty from 9 months to kindergarten. Results indicate that children whose mothers switched between standard schedules and not working, between nonstandard schedules and not working, or between all three work statuses experienced significantly more spells of poverty by kindergarten than children whose mothers worked standard daytime hours throughout the study period. Children whose mothers never worked during the study period also experienced significantly more spells of poverty by kindergarten. The results for paternal work status are similar.

Supplementary Analysis on Single-Parent Families

A supplementary analysis was conducted using only the single-mother families in our sample. (Note that 99% of the single-parent families were single-mothers and thus our sample contained very few single-father families, making reliable estimates impossible.) Compared to two parent-families, single-mother families were more likely to face work-life balance issues and were also likely to experience more economic volatility when parental work status changes. Results from this analysis are not shown but are available upon request. In general, only about a quarter of single-mother families were not poor at any time point between the 9-month and kindergarten data waves. The other 75% of single-mother families were fairly evenly divided among being near-poor, poor, and extremely poor. The regression results on the associations between changes in maternal work status and the family's poverty experiences are similar to those reported in the main analysis. Single-mother families were significantly more likely to fall into poverty (poor or extremely poor), see more fluctuations in family income (often negatively), and experience more spells of poverty if they were not working or their work status changed from working either standard or nonstandard hours to not working.

For brevity, results related to sociodemographic variables were not shown, but are available upon request. Consistent with the literature (Duncan et al., 2017), the following sociodemographic characteristics were significantly associated with families living in poverty (whether near-poor, poor, or extremely poor), experiencing more changes in family income, and experiencing more spells of poverty: being in a racial/ethnic minority group (e.g., non-Hispanic Black, Hispanic), mother not married at birth, a primary home language other than English, low English proficiency of both the mother and the father, and more siblings and household members under age 18. Higher parental education, children attending center-based care, and parental occupation prestige were significantly negatively associated with poverty depth, volatility, and duration.

DISCUSSION AND CONCLUSION

One of the most pronounced changes in the lives of children in recent decades is the dramatic increase in the share of parents who are employed. Fifty years ago, the majority of the children in the U.S. had a stay-at-home parent. Twenty-years ago, the norm was to have full-time working parents and most of them worked standard hours (Bianchi, 2011; Author A). Today in the United States, parents not only work full time but increasingly work long and nonstandard hours (Golden, 2015; Kalleberg, 2013; McMenamin, 2007). This is not just a U.S. phenomenon; rates of parental employment and nonstandard work schedules are high and growing throughout much of the advanced industrialized world (Presser et al., 2008; Rubery et al., 2018; Schildberg-Hörisch, 2016). These changes in parental work have brought much instability to children's lives, with potentially dire consequences. This article draws attention to this issue by examining the links between maternal and paternal work status and work schedules, and family poverty experiences during the early childhood years, a developmental period that has long-lasting influence on later life stages.

In all of our analyses examining poverty depth, volatility, and duration, one message comes across clearly: Changes in parental work status and schedules in the early years of a child's life are strongly associated with precarious family economic conditions by the time the child enters kindergarten. For both the mother and the father, repeated changes in work schedules, such as between standard daytime and nonstandard hours, significantly increased the probability of families experiencing three types of economic stress: (1) being near-poor, poor, or even extremely poor, 2) volatility in family income, and 3) more spells of poverty. Whereas consistent parental work was associated with a greater likelihood of economic security for families, among those who were working at each of the data waves, working nonstandard hours, even at only one point, brought another layer of instability and insecurity as these families tended to have high, sometimes the highest, likelihood of being near-poor, poor, or extremely poor. Our results shed new light on how families' poverty and economic status changes when parents switch to or from nonstandard work schedules as well as when

they move in and out of employment. Our results also highlight the importance of both the mother and the father's work status to family resources and family stability. Overall, a family's economic prospects and poverty experiences no longer depend on only one parent's—historically the father's—work status but upon both parents; however, the results in Table 4 suggest that changes in paternal work status seem to bring more volatility in family income than changes in maternal work status.

Families with parents who worked nonstandard schedules were also more likely to experience volatility in family income and thus more likely to fall into poverty and stay in poverty longer. This financial insecurity inherently threatens a family's and thus a child's stability in life. A long line of scholarship underscores the importance of stability such as family routines in one's life, particularly in a child's life, to nurture and sustain the positive environmental influences on human well-being (Fiese, 2006; Wachs and Evans, 2010). An optimal family environment is shaped by the characteristics of the child, the parent, the parent-child relationship, and the family as a whole. For example, receiving *consistent* instead of irregular parental warmth and sensitivity is key to optimal child development. However, parents' ability to do so depends heavily on the characteristics of their work, such as the intensity and demands of the job. Empirical evidence has shown that working nonstandard hours, particularly night hours, is stressful for parents and is too emotionally and physically draining for parents to have consistently warm and supportive interactions with their children (Gassman-Pines, 2011; Author B). In turn, the parent-child relationship and the quality of the home environment are compromised, as is parental knowledge of children's whereabouts (Crouter et al., 2005; Author B).

Although this article was not able to speak to the association between each different nonstandard work schedule and families' poverty experiences due to small sample sizes, a supplementary analysis was conducted to explore the associations between each individual nonstandard work schedules of the mother and the father and families' poverty experiences (results not shown, available upon request). Results suggest that compared to children whose mothers worked

standard hours at each of the four data waves, children whose mothers worked evenings tended to be either near-poor or poor, whereas those whose mothers worked irregular hours tended to experience deep poverty. Small sample sizes did not allow us to produce reliable estimates, but the direction of the association was as expected. More refined research is thus warranted to provide additional insight into how changes between each different nonstandard work schedule (e.g., from working a night shift to working an irregular shift) might be associated with changes in families' poverty experiences and economic conditions. In addition, recent global labour market trends include not only nonstandard work schedules but also contingent work such as contracting work and on-call or standby hours, all of which could further compromise a family's economic security.

More comprehensive data collection on work schedules, particularly unpredictable work schedules such as on-call hours, would provide a fuller picture of how the characteristics of contemporary parental work are associated with changes in family economic security. In addition, more refined research is warranted that takes an even more dynamic and multidimensional approach to poverty experiences. For example, due to data at hand, we were not able to examine the exact duration of poverty as some families may have fallen in and out of poverty several times between the data collection waves of the ECLS-B. If anything, the results reported here likely underestimated the links between changes in parental work and changes in family poverty experiences and economic conditions. Future data sets that include monthly income would be the most helpful in more definitively establishing these links. While this article shows a link between parental work schedules and child poverty experiences, this non-experimental data set does not allow for causal inferences. It could certainly be the case that poverty experiences force some parents to work nonstandard hours and thus calls for future research tackling the possibility of bi-directional effects between changes in parental work and changes in family economic situations over time.

Overall, the results in this article establish the link between family economic security and changes in parental work status and schedules during the first six years of a child's life. Further research is needed to examine the effect of the interactions among parental work status and schedules, family economic security, and child well-being. Understanding these interactions will have important implications for both employment policy and child and family policy.

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Table 1. Descriptive Statistics of Analyzed Variables (N ≈ 10,700)

	Range	M (SD) / Percentage
Mother's Work Schedules from 9 Months to Preschool (%)		
Never been working	0-1	25.60
Always standard (regular daytime shift)	0-1	22.12
Always nonstandard	0-1	3.26
Switching between standard and nonstandard	0-1	11.00
Switching between standard and not working	0-1	22.50
Switching between nonstandard and not working	0-1	9.40
Switching among not working, standard, & nonstandard	0-1	6.12
Father's Work Schedules from 9 Months to Preschool (%)		
Never been working	0-1	1.23
Always standard (regular daytime shift)	0-1	60.35
Always nonstandard	0-1	7.57
Switching between standard and nonstandard	0-1	17.80
Switching between standard and not working	0-1	8.40
Switching between nonstandard and not working	0-1	2.08
Switching among not working, standard, & nonstandard	0-1	2.58
Sociodemographic Characteristics at Baseline		
Boy (%)	0-1	51.15
Low birth weight (%)	0-1	26.32
Prematurity (%)	0-1	27.03
Child age at baseline (months)	6.20-22.30	10.52 (1.88)
Immigrant status (%)	0-1	30.00
Race/Ethnicity (%)		
Non-Hispanic White	0-1	45.86
Non-Hispanic Black	0-1	16.15
Hispanic	0-1	17.81
Asian	0-1	13.06
Others	0-1	7.13
Mother married at birth (%)	0-1	66.04
Mother lived with bio-mother/bio-father until 16 (%)	0-1	88.66
Primary home language is not English (%)	0-1	21.29
Ever breast-feeding (%)	0-1	67.51
Center-based child care (%)	0-1	54.10
Mother's age at birth	15-50	27.49 (6.36)
Father's age at birth	14-74	30.71 (7.02)
Mother's English proficiency	0-12	10.82 (2.96)
Father's English proficiency	0-12	11.14 (2.35)
Mother’s weekly work hours	0-99	17.40 (19.41)
Father’s weekly work hours	0-99	41.81 (16.27)
Single parent (%)	0-1	14.28
# of household members <18	1-11	2.25 (1.23)
# of siblings	0-9	1.09 (1.15)
Parental highest occupation prestige	0-64.20	37.60 (19.52)
Parental highest education level (%)		

Less than high school	0-1	13.45
High school	0-1	24.37
Some college or equivalence	0-1	28.64
Bachelor's degree or above	0-1	33.55
Household income at 9-month (in 2001 constant dollars)	0-200000	49677.58 (44462.54)
Household income at kindergarten (in 2001 constant US$)	0-175694	56775.25 (45887.11)
Urbanicity (%)	0-1	84.96
Region of residence (%)		
Northeast	0-1	15.35
Mideast	0-1	23.23
West	0-1	26.67
South	0-1	34.75
Poverty Depth at Kindergarten (%)		
Not-poor	0-1	52.95
Near poor	0-1	23.68
Poor	0-1	14.21
Extremely poor	0-1	9.16
Income Volatility by Kindergarten		
# of increased income changes	0-3	0.55 (0.64)
# of decreased income changes	0-3	0.51 (0.63)
# of income changes	0-3	1.05 (0.96)
Poverty Duration by Kindergarten (with zero values)	0-4	0.85 (1.26)
Poverty Duration by Kindergarten (with nonzero values)	1-4	2.16 (1.10)

Note. Standard deviations are in parentheses.

Table 2. Multinomial Logit of Parental Work Schedules by Preschool on Poverty Depth at Kindergarten

	Near Poor vs. Not-Poor	Poor vs. Not-Poor	Extremely Poor vs. Not-Poor
Intercept	-0.61 (0.30)*	-1.84 (0.47)***	-3.19 (0.83)***
Mother's Work Schedules from 9 Months to Preschool (Reference group: Always standard)			
Never been working	0.57 (0.15)***	1.28 (0.21)***	1.80 (0.38)***
Always nonstandard	0.54 (0.19)**	0.55 (0.35)	1.25 (0.33)***
Switching between standard and nonstandard	0.32 (0.16)*	0.51 (0.22)*	0.90 (0.24)***
Switching between standard and not working	0.59 (0.12)***	0.99 (0.18)***	1.38 (0.30)***
Switching between nonstandard and not working	0.49 (0.21)*	0.94 (0.28)***	1.44 (0.32)***
Switching among not working, standard & nonstandard	0.53 (0.18)**	0.95 (0.25)***	1.34 (0.27)***
Father's Work Schedules from 9 Months to Preschool (Reference group: Always standard)			
Never been working	0.70 (0.40)	0.98 (0.44)*	2.00 (0.46)***
Always nonstandard	-0.10 (0.17)	0.08 (0.23)	0.59 (0.32)
Switching between standard and nonstandard	0.27 (0.11)*	0.36 (0.16)*	0.79 (0.26)**
Switching between standard and not working	0.30 (0.13)*	0.69 (0.18)***	1.50 (0.25)***
Switching between nonstandard and not working	0.35 (0.20)	0.82 (0.23)***	1.70 (0.29)***
Switching among not working, standard & nonstandard	0.32 (0.20)	0.70 (0.22)**	1.44 (0.33)***

Note. Numbers represent coefficients with standard errors in parentheses. Models control for child, parent, and family characteristics detailed in Measures section.

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

Table 3. **Estimated Probabilities of Poverty Depth at Kindergarten by Parental Work Schedules**

	Not poor	Near poor	Poor	Extremely Poor
Mother's Work Schedules from 9 Months to Preschool				
Never been working	0.4735	0.2218	0.1735	0.1312
Always standard	0.6121	0.2347	0.1029	0.0503
Always nonstandard	0.5155	0.2701	0.1108	0.1037
Switching between standard and nonstandard	0.5457	0.2454	0.1232	0.0857
Switching between standard and not working	0.4936	0.2536	0.1503	0.1025
Switching between nonstandard and not working	0.5030	0.2368	0.1474	0.1127
Switching among not working, standard & nonstandard	0.5014	0.2464	0.1495	0.1027
Father's Work Schedules from 9 Months to Preschool				
Never been working	0.4275	0.2601	0.1528	0.1597
Always standard	0.5705	0.2525	0.1270	0.0500
Always nonstandard	0.5658	0.2199	0.1301	0.0841
Switching between standard and nonstandard	0.5164	0.2636	0.1381	0.0819
Switching between standard and not working	0.4839	0.2279	0.1558	0.1324
Switching between nonstandard and not working	0.4692	0.2220	0.1621	0.1467
Switching among not working, standard & nonstandard	0.4837	0.2340	0.1569	0.1254

Note. Predictions are based on the multinomial logit results from Table 2.

Table 4. Regression Estimates of Parental Work Schedules by Preschool on Income Volatility by Kindergarten

	# of Increased Income Change	# of Decreased Income Change	# of Income Change
Intercept	0.63 (0.06)***	0.56 (0.06)***	1.19 (0.08)***
Mother's Work Schedules from 9 Months to Preschool (Reference group: Always standard)			
Never been working	-0.05 (0.04)	0.13 (0.04)***	0.08 (0.05)
Always nonstandard	-0.04 (0.06)	0.03 (0.06)	-0.00 (0.09)
Switching between standard and nonstandard	-0.00 (0.04)	0.05 (0.05)	0.04 (0.06)
Switching between standard and not working	0.03 (0.03)	0.13 (0.03)***	0.16 (0.04)***
Switching between nonstandard and not working	-0.12 (0.07)	0.06 (0.09)	-0.06 (0.09)
Switching among not working, standard & nonstandard	-0.05 (0.05)	0.06 (0.06)	0.01 (0.08)
Father's Work Schedules from 9 Months to Preschool (Reference group: Always standard)			
Never been working	0.02 (0.07)	0.13 (0.07)	0.15 (0.08)
Always nonstandard	0.02 (0.05)	0.04 (0.04)	0.06 (0.07)
Switching between standard and nonstandard	0.07 (0.03)*	0.11 (0.03)***	0.18 (0.05)***
Switching between standard and not working	0.06 (0.04)	0.22 (0.05)***	0.27 (0.06)***
Switching between nonstandard and not working	0.00 (0.06)	0.18 (0.05)***	0.18 (0.07)*
Switching among not working, standard & nonstandard	0.06 (0.04)	0.19 (0.06)**	0.25 (0.07)***

Note. Numbers represent coefficients with standard errors in parentheses. Models control for child, parent, and family characteristics detailed in Measures section.

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

Table 5. **Regression Estimates of Parental Work Schedules by Preschool on Poverty Duration by Kindergarten**

	Duration
Intercept	1.20 (0.08)***
Mother's Work Schedules from 9 Months to Preschool (Reference group: Always standard)	
Never been working	0.36 (0.05)***
Always nonstandard	-0.03 (0.07)
Switching between standard and nonstandard	0.05 (0.05)
Switching between standard and not working	0.22 (0.05)***
Switching between nonstandard and not working	0.28 (0.08)***
Switching among not working, standard & nonstandard	0.15 (0.06)*
Father's Work Schedules from 9 Months to Preschool (Reference group: Always standard)	
Never been working	0.56 (0.11)***
Always nonstandard	-0.04 (0.06)
Switching between standard and nonstandard	0.07 (0.04)
Switching between standard and not working	0.36 (0.06)***
Switching between nonstandard and not working	0.46 (0.07)***
Switching among not working, standard & nonstandard	0.36 (0.08)***

Note. Numbers represent coefficients with standard errors in parentheses. Models control for child, parent, and family characteristics detailed in Measures section.

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

Appendix Table. Sample Size and Percentage Distribution of Parental Work Schedules From 9-month to Preschool

	Mother		Father	
	N	%	N	%
At 9-month				
Not working	5,300	49.77	650	7.71
Working standard hours (regular daytime shift)	3,900	36.41	5,850	71.39
Working regular evening shift	600	5.80	500	6.33
Working regular night shift	200	1.85	300	3.51
Working rotating shift	300	2.88	450	5.61
Working split shift or other nonstandard shifts	350	3.30	450	5.45
At 2-year				
Not working	4,450	45.24	650	8.23
Working standard hours (regular daytime shift)	3,950	40.62	5,550	72.56
Working regular evening shift	650	6.45	450	5.85
Working regular night shift	200	1.94	250	3.17
Working rotating shift	300	3.24	400	5.51
Working split shift or other nonstandard shifts	250	2.51	350	4.67
At preschool				
Not working	3,450	39.20	500	7.32
Working standard hours (regular daytime shift)	3,950	44.72	5,050	73.10
Working regular evening shift	500	5.90	350	5.17
Working regular night shift	250	2.75	250	3.33
Working rotating shift	350	4.19	450	6.67
Working split shift or other nonstandard shifts	300	3.24	300	4.40