HHS Public Access

Author manuscript

Matern Child Health J. Author manuscript; available in PMC 2020 July 01.

Published in final edited form as:

Matern Child Health J. 2019 July ; 23(7): 910–918. doi:10.1007/s10995-018-02717-w.

The role of parents' nativity in shaping differential risks of food insecurity among US first graders

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Abstract

Objectives—Food insecurity remains a problem in the U.S., especially for children in immigrant families. We developed a novel measure of parental nativity and incorporated school effects to advance knowledge from prior studies.

Methods—Using hierarchical logistic models and data from the Early Childhood Longitudinal Study-2011 Kindergarten Cohort, we examined how parental nativity and race/ethnicity, and school characteristics influence household food insecurity among a nationally representative sample of US first-graders in 2012.

Results—After adjusting for potential confounders, children without any US-born parents had higher likelihood of household food insecurity than children with two US-born parents or one foreign-born/one US-born parent. Attending a Title 1 school was associated with food insecurity independent of household socioeconomic status.

Conclusions for Practice—Results suggest that providers should take special care to screen for food insecurity among children with only immigrant parents and that Title 1 schools have a potentially important role to play in reducing food insecurity.

Keywords

Food insecurity; immigrants; children; Title 1 schools

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Ethical Statement

This article does not contain any studies with human participants performed by any of the authors. While the data do pertain to humans, we utilized a publicly available, de-identified, secondary data set. The US Department of Health and Human Services' Office of Human Research Protections recognizes that de-identified publicly available data does not constitute human subjects research as defined at 45 CFR 46.102. This means that it does not need a human subjects review through an Institutional Review Board.

Introduction

Food insecurity remains a serious problem for children in the US; 17.6 million US households (14.5%) had difficulty providing enough food for all members in 2012 (Coleman-Jensen, Nord, & Singh, 2013). Being food insecure is detrimental to children's physical health (Casey et al., 2005), social and mental health (Casey et al., 2005; Kimbro & Denney, 2015; Knowles, Rabinowich, De Cuba, Cutts, & Chilton, 2016), and academic development (Jyoti, Frongillo, & Jones, 2005; Winicki & Jemison, 2003). Food insecurity does not affect all children evenly; for example, 30% and 27% of Black and Hispanic households with children, respectively, were food insecure, in comparison to only 16% of white households (Coleman-Jensen et al., 2013).

Immigrant households also face heightened risks of food insecurity (Arteaga, Potochnick, & Parsons, 2017; Chilton et al., 2009; Kersey, 2007; Van Hook & Balistreri, 2006), although this phenomenon is not well-studied due to data limitations (Quandt, 2006). A national study of American children found that those with at least one foreign-born parent had greater initial and ongoing rates of food insecurity, as compared to children with US-born parents, independent of the child's nativity (Miller, Chang, Ha, & Martinez, 2018). This is important as almost 25% of US children have immigrant parents, implying that food insecurity among immigrants can have a population-level impact on health (Miller et al., 2018).

One complicating factor when studying immigrant status and food insecurity is how to measure immigrant status. When examining household food insecurity in families with children, the nativity of the child's mother (Arteaga et al., 2017; Chilton et al., 2009; Kalil & Chen, 2008), or if the household has at least one foreign-born parent (Kersey, 2007; Van Hook & Balistreri, 2006) are often used. While these definitions make sense, they neglect the fact that having one US-born parent in a household that also includes a foreign-born parent might create a fundamentally different experience for the child than being raised by only foreign-born parents. In the context of food insecurity, that one US-born parent likely has stronger English-proficiency and more complete knowledge of the US social service landscape, potentially allowing that household to avoid risk factors known to link immigrant households with food insecurity (Kalil & Chen, 2008; Kasper, 2000). Scholars of generational status and health have recognized this, and divided children with at least one-foreign born parent into two generational status groupings: those with only foreign-born parents and those with one foreign-born parent and one US born parent (Balcazar, Grineski, & Collins, 2015). We follow that model here.

In addition to being limited by small samples and/or bivariate study designs, studies examining nativity and food insecurity have also neglected consideration of school effects. The school environment can play an important role in shaping students' experiences (Lowenstein et al., 2015). School characteristics can potentially influence students' risk of food insecurity, although this has never been systematically evaluated. For example, children attending low resource schools may have a harder time accessing food in the surrounding community than children attending better resourced schools. In schools with high levels of parental involvement, parents might be able to help their peers avert household food insecurity through informal aid networks. Due to their endowments and provision of

scholarships to low-income students, attendance at private schools could hypothetically help at-risk students remain food secure.

Objectives

This paper builds on previous studies by looking at race/ethnicity, nativity and household food security, making two contributions. First, we use an expanded parental nativity measure that extends beyond how parental nativity has been operationalized in previous studies. Our measure includes having only foreign-born parents (including one single parent that is foreign-born), having only US-born parents (including one single parent that is US-born), and a third category which has not yet been examined, which is having one foreign-born and one US-born parent. Second, we examine how school context impacts food insecurity. School context has been previously neglected in studies of children's food insecurity. We make those innovations by utilizing nationally representative data for American first graders and a multi-level modelling framework designed to comprehensively account for other child-level and school-level factors that might influence a child's likelihood of residing in a food insecure household. The paper answers the research question: How are race/ethnicity, parental nativity, and school context related to a child's risk of being in a food insecure household?

Methods

Data

Data on US children came from the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) study, which is sponsored by the National Center for Education Statistics (NCES). The ECLS-K:2011 follows a nationally representative sample of children from kindergarten through their elementary school years. We draw variables from the kindergarten and first grade waves, which were collected from surveys taken by children, parents, and school administrators in fall 2010, spring 2011, fall 2011, and spring 2012. In total, our multivariate analysis included 12,035 first grade children attending 1,308 schools.

ECLS-K:2011 employed a complex, probability-based sampling design, involving three stages, to originally sample kindergarteners in fall 2010. First, the US was divided into contiguous primary sampling units (PSUs), of which 90 were selected. Second, public and private schools were sampled within each of the 90 PSUs. Third, children enrolled in kindergarten programs in those schools were sampled. The sampling weight W6CS6P_6T0a was used to adjust for differential probabilities of selection (Tourangeau et al., 2015).

Measures

Table 1 reports information on each variable, including coding and the original ECLS variable name. All variables used in the study came from the ECLS. To create our dependent variable, we relied on the raw household food security scale for first grade. *Household food security in the spring of first grade* was measured using an eighteen-item scale from the US Department of Agriculture (Bickel, Nord, Price, Hamilton, & Cook, 2000), which includes ten adult- and eight child-specific items (see Appendix A). We used the household scale

since food insecurity is considered a household-level characteristic (Tourangeau et al., 2015); the measure is more comprehensive than using only the child-level scale, which may or may not apply to the focal ECLS child (Tourangeau et al., 2015); and similar studies use the household indicator (Howard, 2011; Jyoti et al., 2005; Kimbro & Denney, 2015). Households responding affirmatively to three or more items are considered to be food insecure (Arteaga et al., 2017; Howard, 2011; Kimbro & Denney, 2015).

We use five different school-level independent variables to capture varying school contexts and that hypothetically influence food insecurity, see Table 1: *type of school*, *school location, school enrollment*, *parental involvement* and *Title 1* status. Title 1 schools are those supported by a federal program that provides financial assistance to schools serving high percentages of economically disadvantaged children to help them meet academic standards.

Child race/ethnicity is one of our two focal independent variables. We examined *black/African American*, non-Hispanic; *Hispanic* (all races); *Asian*, non-Hispanic; *other* (which combines Native Hawaiian, Pacific Islander, American Indian, Alaska Native, and multiracial due to small counts), non-Hispanic; and *white*, non-Hispanic. The second focal independent variable is parental nativity, which is represented categorically as *only foreign born parent(s)*, *one parent is foreign-born and one is US-born*, and *only US-born parent(s)*. We used *only foreign born parent(s)* as the reference category.

We controlled for child demographics, socioeconomic status (SES) and health using nine child-level independent variables (see Table 1). These three areas and the specific variables were selected based on a review of the literature on the correlates of household food insecurity and availability in the ECLS. For child demographics, we used *sex*, since girls have had greater odds of food insecurity/malnutrition than boys (Hadley, 2008; Raj, McDougal, & Silverman, 2015); and *age* in months, following Arteaga et al. (2017). SES-related variables included *household size*, since more children is associated with greater odds of food insecurity (Huet, 2017); a *socioeconomic status factor*, since economic deprivation is closely connected to food insecurity (Huet, 2017); *one parent household*, since single parent households face increased risk of food insecurity (Bruening, MacLehose, Loth, Story, & Neumark-Sztainer, 2012); *teen mother*, since teen parents face increased risk of food insecurity (Mollborn & Dennis, 2012); and child attendance in a *prekindergarten* program, since preschools can provide food support, although support varies greatly (Arteaga et al., 2017). Health measures included both *parental depression* and *parental health status*, since poor parental health and depression has been linked to household food insecurity (Casey et al., 2004; Knowles et al., 2016). Descriptive statistics for all variables can be found in Table 2.

Analysis

We used hierarchical logistic modeling (HLM) to estimate a child's odds of residing in a food insecure household. HLM is the most appropriate statistical technique to use when analyzing multi-level data because traditional regression techniques may result in inaccurate parameter estimates when examining effects at multiple levels (Raudenbush & Bryk, 2002). HLM is appropriate for this study because our data had a multi-level structure and we used HLM7 software to analyze the data.

We followed the recommended approach for handling missing data in HLM7, which involves analyzing 10 imputed datasets at level 1 and complete cases at level 2 (Raudenbush et al. 2011). At the child-level (level 1), we used multiple imputation (MI) to address missing values and non-response bias. MI creates multiple sets of values for missing observations by using a regression-based approach. It also avoids the bias that can occur when missing values are not missing completely at random (Enders, 2010). In IBM SPSS Statistics 25, ten imputed datasets were specified and 200 between-imputation iterations were used. HLM7 analyzed each of the ten individual-level datasets separately, and calculated pooled results. When using imputed data, we analyzed the originally ordinal measures (e.g., parental depression) as continuous predictors. This is a best practice since rounding off imputed values based on discrete categorical specifications has been shown to produce more biased parameter estimates (Enders, 2010). At the school-level, HLM7 permits only a complete case analysis so schools with missing values were automatically deleted, meaning that children who were missing one or more school-level variables included in our study were excluded. Ultimately, 4,809 children were excluded, leaving 12,035 children nested within 1,308 schools.

We ran one model, which includes race/ethnicity, parental nativity and school context as predictors of food insecurity, controlling for the three groups of control covariates. It consists of a random intercept and fixed slopes. Independent variables were grand mean (i.e., group mean) centered. We use robust standard errors and a p-value of 0.05 to define significance.

Results

Table 3 reports HLM results. Findings for parental nativity were statistically significant. Children with only US-born parents were 0.94 (95% CI: 0.92, 0.97) times less likely (p=0.03) to be food insecure than children with only foreign-born parents. Children with one foreign-born and one US-born parent were 0.95 (95% CI: 0.92, 0.97) times less likely (p=0.05) to be food insecure than children with only foreign-born parents. In a model not reported here, children with one foreign-born and one US-born parent were not statistically significantly more likely to be food insecure that those with only US-born parents (p>.8). In terms of school-level findings, attendance at a Title 1 school was associated with a 1.06 times (95% CI: 1.04, 1.08) greater likelihood (p<.001) of being food insecure. In terms of the control variables ($p \leq .01$), having poorer parental health status (.97, 95% CI: 0.96, 0.97) and greater levels of parental depression (1.06, 95% CI: 1.04, 1.09) were associated with higher odds of food insecurity. Higher SES was also associated with lower odds of food insecurity (0.942, 95% CI: 0.93, 0.96). No race/ethnicity findings were statistically significant (p>.05). In terms of direction, Asian and black children were less likely to be food insecure than white children, while Hispanic children and other race children were more likely to be food insecure than white children, adjusting for the effects of other variables.

Discussion

Parental nativity was more closely related to a child's risk of living in a food insecure household, than was the child's race. Another study looking at children in Head Start programs in three cities had similar findings (Stuff, 2009). Interestingly, a recent study using a nationally-representative sample of adults found that nativity mattered less than race in shaping adults' odds of food insecurity; black and Hispanic adults were more likely to be food insecure than foreign-born and US-born whites, regardless of nativity status (Lowenstein et al., 2015). Bivariate correlations (not shown) with these child-level data show that being black or Hispanic was positively and significantly associated with food insecurity, but these findings did not persist in the multivariate model.

In terms of nativity, our findings reveal a significant association whereby having only foreign-born parents is a critical risk factor. Having only foreign-born parents vs. none was the most important predictor in the model among the ten dichotomous variables included. Having only foreign-born parents was significantly worse for the child's risk of food insecurity than was having one foreign-born and one US-born parent. But, having one US-born parent was enough to make the risk of food insecurity statistically equivalent as if the child had only US-born parents since those two groups were not significantly different (from the model not shown). Others have discussed that poverty, low-wage employment, a lack of English proficiency, facing challenges finding culturally-desirable foods, and restrictions on enrollment in government programs are contributing factors to immigrant households' experiences of food insecurity (Kalil & Chen, 2008; Kasper, 2000; Moffat, 2017). Given some of the known challenges, it is likely that these challenges can be attenuated when one of the parents is US born but amplified when neither parent is US born. While few studies disaggregate parental nativity for both parents, one study that did disaggregate found that children with two immigrant parents had significantly higher rates of poverty than children with two US-born parents or with mixed nativity parents (Borjas, 2011).

School context was not a particularly important influence on children's risk of food insecurity. Only attendance at a Title 1 school was significantly associated with increased food insecurity risk. Given that this effect is independent of the child's SES, the finding may be due to neighborhood and community-level characteristics surrounding the school. Given that Title 1 schools serve economically-disadvantaged children, it is possible that the zones surrounding the school serve a low SES populace. In these areas, it may be harder to access food due to the presence of food deserts since research has shown that in poor areas have fewer supermarkets, food prices are higher, and food quality is lower (Walker, 2010). Because poor families often lack of access to personal transportation, they are likely to acquire their foods in their immediate neighborhoods (Walker, 2010). For these reasons, children attending Title 1 schools may be at risk for food insecurity, independent of their own household characteristics. This hypothesis is currently speculative and needs to be tested in future studies.

This study has several limitations. We did not have access to child nativity, which is suppressed in the publically available ECLS dataset. Combining this with parental nativity would allow for incorporation of a potentially relevant expanded generational status measure

(Balcazar et al., 2015), although previous research suggests that child nativity is not likely to be as important as parental nativity and only 3% of ECLS 2010–2011 kindergarteners were foreign-born (Miller et al., 2018). Future studies could consider undocumented status as well as the length of residence in the US for foreign-born parents, which were not captured here. Inclusion of these variables allow for more nuanced determination of associations between immigrant status and food insecurity, such as how/if the risk of food insecurity diminishes with longer US residence. In regards to the health measures used as control variables, parental depression is measured with just one self-reported indicator, as opposed to a validated multi-item scale. While this raises validity issues, it was the only available depression measure. We also looked only at one definition of household food insecurity, even though there are other ways of measuring food insecurity (e.g., marginal food insecurity) (Jyoti et al., 2005). Future studies can determine if the same pattern of risk for children of only foreign-born parents occurs under conditions of marginal and severe food insecurity.

Conclusions for Practice

We employed a parental nativity measure that extended beyond how parental nativity has been operationalized in previous studies of food insecurity. Doing so reveals that having only foreign-born parents is fundamentally different than having only US-born parents or having one foreign-born and one US-born parent. Our results problematize the use of mother's nativity or at least one foreign-born parent as the measure of choice in future studies. Practically, service providers must be particularly attuned to food insecurity in households with no US-born parents. The American Academy of Pediatrics (AAP) recommends that providers assess food insecurity in families by incorporating a screening tool into their practice (American Academy of Pediatrics, 2015). The AAP also recommends that service providers utilize a practical two-item screening tool that measures food insecurity, which is nearly as accurate as the 18-item scale used in this manuscript (Hager et al., 2010). It is important that service providers familiarize themselves with community resources (American Academy of Pediatrics, 2015), including those accessible to immigrant families, so that they can refer children that screen positively to relevant services for which they are eligible. Specific to food insecure children from immigrant backgrounds, transportational access to sources of food, such as summer school food programs, can reduce food insecurity (American Academy of Pediatrics, 2015). Food programs serving immigrant families also must consider how cultural and religious beliefs might heighten food insecurity related to what some immigrant households can and cannot eat, how food is prepared, and any number of factors that can violate the way food is given to children (Shatenstein & Ghadirian, 1998).

Through examining how school context relates to food insecurity, we show risks for students attending Title 1 schools, which have not been highlighted before. This suggests that Title 1 schools could have an important role to play in promoting food security, such as through the provision of community gardens (Corrigan, 2011). Given the importance of food in sustaining children's lives, it is of utmost importance that these disparities in American schoolchildren's access to food be resolved through thoughtful, coordinated, and cooperative public and private actions.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Significance

What is already known on this subject?

Household food insecurity can have detrimental effects on children's academic development, social skills, and mental and physical health. Children from racial/ethnic minority and immigrant backgrounds suffer disproportionately from food insecurity.

What does this study add?

This study uses a parental nativity measure that extends beyond how parental nativity has been previously measured revealing that having only foreign-born parents is fundamentally different than having only US-born parents or having one foreign-born and one US-born parent. It also finds risks for students attending Title 1 schools, which have not been highlighted before

Table 1.

Information about independent and dependent variables

Variable	ECLS-K:2011 Variable name	Survey question used or how information was obtained	Coding
Independent Variables			
School Variables			
Type of School	X4SCTYP	School administrators were asked "Which of the following characterizes your school?"	0 = public, 1 = private
School Location	X4LOCALE	ECLS used geographical data from the National Center for Educational Statistics to determine if each school was located in a city, suburb, town or rural area.	city: 0 = no, 1 = yes; suburb: 0 = no, 1 = yes; rural/town : 0 = no, 1 = yes
School Enrollment	X3ENRLS	School administrators were asked "[What was the] total enrollment in your school around October 1, 2010, or the date nearest to that for which data are available?"	1= 0–149 students, 2 = 150–299 students, 3 = 300–499 students, 4 = 500–749 students, 5 = 750 and above students
Parental Involvement	S4C4A	School administrators were asked to indicate how much they agreed or disagreed with the following statement about the school's community and parents: "Parents are actively involved in this school's programs"	1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree
Title 1	S4TT1	School administrators were asked "Did your school receive Federal Title I funds for this school year?	0 = not Title 1, 1 = Title 1
Focal Variables			
Child's Race/Ethnicity	X_RACETH_R	ECLS created a single race/ethnicity composite from data collected in the kindergarten and first grade parent interviews.	Black, non-Hispanic: 0 = no, 1 = yes; Hispanic: 0 = no, 1 = yes; Asian, non-Hispanic: 0 = no, 1 = yes; White, non-Hispanic: 0 = no, 1 = yes; Other, non-Hispanic: 0 = no, 1 = yes
Parental Nativity	P2PARCT1 & P2PARCT2	Parent was asked "Now I have a few questions about {your/{NAME}'s} country of birth. In what country {were/was} {you/{NAME}} born?" (was asked about both parents, if applicable).	both parents/single parent were foreign born: 0 = no, 1 = yes; one parent was Foreign Born and one parent was US born: 0 = no, 1 = yes; both parents/single parent were US born: 0 = no, 1 = yes;
Child Demographics			
Child's Sex: Female	X_CHSEX_R	Parent was asked (if not obvious to ECLS interviewer) "I have {CHILD} recorded as {male/female}, is that correct?"	0 = male, 1 = female
Age (months)	X4AGE	Parent was asked "How old is {CHILD}?"	continuous variable (in months)
Socioeconomic Status-related Variables			
Household Size	X4LESS18	Variables created by ECLS by taking the number of household members over 18 and subtracting that from the total number of people in the household	continuous variable
SES	X4SESL_I	ECLS provided a family socioeconomic scale, which includes household income, parental employment status, occupational prestige, parental education, and the	continuous variable

Variable	ECLS-K:2011 Variable name	Survey question used or how information was obtained	Coding
		number of siblings in the household (Tourangeau et al., 2015).	
One Parent Household	X4IDP1 & X4DP2	Parent was asked to complete a household roster, which was used to create this variable. Response options included: Biological or birth mother; Adoptive mother; Step mother; Foster mother or female guardian; Other female parent or guardian. Biological or birth father; Adoptive father; Step father; Foster father or male guardian; Other male parent or guardian. Then, they were asked the same question for a second parent (if present).	0 = no (roster showed two parents or guardians), 1 = yes (roster showed only one parent or guardian)
Teen Mother	P1OLDMOM	Parent was asked “How old were you/was the child’s biological mother when you/she had a child for the first time?”	0 = mom was 20 years or older when her first child was born, 1 = mom was under 20 years old when her first child was born
Prekindergarten	P1CNUMPK	Parent was asked “Did {CHILD} attend a day care center, nursery school, preschool or prekindergarten program on a regular basis the year before {he/she} started kindergarten?”	0 = no, 1 = yes
Health Measures			
Parental Depression	P2DEPRES	Parent was asked “How often during the past week have you felt depressed?”	1 = never, 2 = Some of the time, 3 = a moderate amount of the time, 4 = most of the time
Parental Health Status	P2HEALTH	Parent was asked “Now, I would like to ask you about your health. In general, would you say that your health is…?”	1 = poor, 2 = fair, 3 = good, 4 very good, 5 = excellent
Dependent Variable			
Household Food Insecurity	X4FSRAW2	Parent was asked an 18 item scale (see Appendix A) based on the US Department of Agriculture U.S. Household Food Security Survey Module; questions covered how often food was not available, if meals were cut/skipped, availability of balanced meals, how long food lasted, and if family members experienced hunger in the 12 months prior to the questionnaire.	0 = food secure (affirmative responses to 2 or fewer of the 18 items), 1 = food insecure (affirmative responses to 3 or more of the 18 items)

Table 2.

Descriptive Statistics for Analysis Variables (Unweighted, n=12,035 children, attending 1,308 schools)

Variable		N	% Missing	Mean	SD
Independent Variables					
School-Level					
Type of School	Public [REF]	1282	0		
	Private	26			
School Location	City	497			
	Suburban [REF]	510	0		
	Town/Rural	301			
School Enrollment		1308	0	3.85	1.55
Parental Involvement		1308	0	3.95	0.98
Title 1	No	941	0		
	Yes	367			
Individual-Level					
Focal Variables					
Child's Race/Ethnicity	White [REF]	5747			
	Black	1428			
	Hispanic	3186	0.1		
	Asian	1055			
	Other Race	719			
Parental Nativity	Only foreign-born parents	2180			
	1 foreign-born & 1 US-born parent	743	23.1		
	Only US-born parents	6405			
Child Demographics					
Child's Sex: Female	Male [REF]	6196	0.2		
	Female	5916			
Age (months)			0.02	85.36	1.146
Socioeconomic Status-related Variables					
Household Size			19.0	2.57	1.146
SES			18.7	−0.929	4.360
One Parent Household	No	7641	19.3		
	Yes	2149			
Teen Mother	No	6451	26.2		
	Yes	2501			
Prekindergarten	No	2940	26.8		
	Yes	5937			
Health Measures					
Parental Depression			27.0	1.26	0.587
Parental Health Status			27.0	3.81	0.980
Dependent Variable					
Household Food Insecurity	No	8244	23.2		

Variable		N	% Missing	Mean	SD
	Yes	1079			

Table 3

Predicting household food insecurity status for U.S. first graders (n=12,035, attending 1,308 schools)[a]

	Odds Ratio	Lower 95% Confidence Interval	Upper 95% Confidence Interval	P (robust)
School-Level Variables				
Intercept	1 189***	1.147	1.231	<0.001
Private School (*ref: Public*)	0.973	0.942	1.006	0.41
City school (*ref: Suburban*)	1.030	1.012	1.050	0.10
Rural/town school (*ref: Suburban*)	1.001	0.983	1.018	0.99
School enrollment	0.999	0.994	1.003	0.80
Parental involvement	0.987	0.979	0.994	0.07
Title 1	1.061***	1.044	1.079	<0.001
Individual-Level Variables				
Focal Variables				
Black (*ref: White*)	0.972	0.940	1.004	0.38
Hispanic (*ref: White*)	1.011	0.989	1.034	0.62
Asian (*ref: White*)	0.949	0.910	0.990	0.22
Other Race (*ref: White*)	1.021	0.994	1.050	0.44
1 foreign-born (FB) and 1 US-born parent (*ref: FB parents*)	0.946*	0.920	0.973	0.05
US-born parents (*ref: Foreign-born parents*)	0.943*	0.916	0.968	0.03
Child Demographics				
Female (*ref: Male*)	0.986	0.973	0.998	0.25
Age	0.999	0.998	1.001	0.82
Socioeconomic Status- related Variables				
Household size	1.017	1.007	1.027	0.09
SES	0.942***	0.927	0.955	<0.001
One parent household	1.044	1.015	1.076	0.14
Teen mother	1.014	0.992	1.038	0.52
Prekindergarten	0.980	0.963	0.996	0.21
Health Measures				
Parental depression	1.064**	1.042	1.087	0.01
Parental health status	0.967***	0.959	0.974	<0.001

[a]The model uses the sampling weight W6CS6P_6T0a,

*** $p \leq .0001$,

** $p \leq .01$,

* $p \leq .05$