

# **Immigrant Children’s Behavioral Advantage: The Role of Family Household Structure and Stability in Immigrant Paradox**

## **Abstract**

Using a longitudinal sample of children in kindergarten to second grade (age 5 to 8) from ECLS-K: 2011, this study examines how the family living arrangements—structures and stability— are associated with children’s behavioral outcomes across race and ethnicity; and, to what extent, the family living arrangements explain immigrant children’s paradoxically healthy outcomes. Hybrid random effects regression results show that the effects of family living arrangements vary across racial groups. For black and Hispanic children, single-parent family structures, but not family transitions, exert negative effects on behavioral development. The opposite pattern holds for Asian children. Multigenerational households, whether single- or two-parent families, do not benefit children. The Blinder-Oaxaca decomposition model reveals that the distribution of family household structures substantially explain the externalizing behavioral disparities for black children, but only partially the internalizing behavioral disparities for Hispanic children. For Asian children, family living arrangements little explain the immigrant advantage.

## **Introduction**

Immigrant children, a majority of which are racial minorities, are the fastest growing demographic group in the United States. As of 2010, one in five children was foreign-born or had at least one foreign-born parent, and the share of immigrants and their children in the U.S. population will continue growing (López, Bialik, & Radford, 2018). Beginning in early childhood, immigrant youth have shown unexpectedly successful developmental outcomes, despite economic hardship and low parental education – a phenomenon referred to as the

immigrant paradox (Marks, Ejesi, & García Coll, 2014; Stevens & Vollebergh, 2008; Suárez-Orozco, Rhodes, & Milburn, 2009; Turney & Kao, 2012). Researchers have suggested that immigrant family household structures, such as two-parent and multigenerational households (Beiser, Hou, Hyman, & Tousignant, 2002; Perreira & Ornelas, 2011; Suárez-Orozco et al., 2009), as well as the lower levels of divorce among immigrants can explain this paradox (Cherlin, 2004; Glick, 2010; Landale & Oropesa, 2007; Phillips & Sweeney, 2006). However, few studies have rigorously examined the immigrant family living arrangements and their relation to behavioral disparities. Specifically, how multigenerational households as well as the structural transitions in the family – for example, divorce or the exit of extended kin – might affect immigrant children remain unknown. This gap in knowledge is surprising, considering the importance of the family living arrangement in child behavioral functioning, as well as the significant linkage between early childhood behaviors and later outcomes (Kaiser & McLeod, 2004; Palloni, Milesi, White, & Turner, 2009).

Previous research has not examined the diversity of immigrant family living arrangements nor their unique dynamics in explaining the immigrant paradox (e.g. Turney & Kao, 2012). Although there are racial variations, immigrant children frequently live with extended kin or other adults (Landale et al. 2011: p. 46). Pre-school-aged immigrant children tend to live in multigenerational family households (5 vs. 4 percent) with presence of two parents, especially if they were Hispanic and black (author's calculation using ACS 2010-2). Researchers have shown that co-resident grandparents exert differential effects on child development, depending on the family context and racial identity (DeLeire & Kalil, 2002; Dunifon & Kowaleski-Jones, 2007; Mollborn, Fomby, & Dennis, 2011, 2012). For example, grandparents in single-parent families play a more positive role than they do in two-parent

families (Kang & Cohen, 2017). Given the prevalent two-parent multigenerational household structures for some racial groups, immigrant children may not benefit much from their co-resident grandparents. Moreover, immigrant children experience more frequent turnovers by extended kin than children of natives (Hernandez, Denton, Macartney, & Blanchard, 2012; Landale, Thomas, & Van Hook, 2011, p. 46; Van Hook & Glick, 2007). Extended household structures are unstable, and immigrant parents' economic constraints and their involvement in migration networks can make extended households even less stable (Richards, White, & Tsui, 1987; Van Hook & Glick, 2007). Although the structural transitions by extended kin will be less disruptive than divorce, this type of family transitions may play against the immigrant paradox.

In this paper, using a longitudinal sample from the ECLS-K: 2011 cohort, behavioral development among children of immigrants will be examined. Family household structures are categorized into four types, measured by parental union status and the presence of adult extended kin. Not only the person-specific average number of years a child has lived in each family household structure, but also the number of structural transitions will be measured. The research will first answer the association between the family household structures and their stability and behavioral outcomes across racial groups, using hybrid random effects regression models. Then this study examines the question of whether, and to what extent, the family living arrangements explain the apparent immigrant advantages, using the Blinder-Oaxaca decomposition.

### **Behavioral problems in children: Immigrant paradox?**

Immigrant children and children of immigrants tend to have lower levels of problem behaviors compared with natives, consistent with the immigrant paradox (Stevens & Vollebergh, 2008). Although most research has compared children of immigrants with native white children (see Crosnoe, 2006; Huang, Calzada, Cheng, & Brotman, 2012; Song, Ziegler, Arsenault, Fried,

& Hacker, 2011; Turney & Kao, 2012), those studies indicate that the differences stem not only from immigrant status but also from race (Turney & Kao, 2012). Compared with same-race children of natives, children of immigrants tend to show better behavioral outcomes, but there are significant variations across race and ethnicity (Degboe, BeLue, & Hillemeier, 2011; Lara-Cinisomo, Xue, & Brooks-Gunn, 2013, p.; Turney & Kao, 2012). In Degboe's analyses, white, black, and Hispanic adolescents with immigrant parents have lower odds of problem behaviors than their same-race peers with native parents. Using the first-grade children, Turney and Kao (2012) find that Hispanic children of immigrants have more favorable externalizing behavioral outcomes than their native Hispanic counterparts, but this paradoxical pattern does not emerge for Asian and black children. Overall, immigrant children are expected to do better than or as well as those of natives in the same race.

### **Explanations of Immigrant Paradox**

Scholars have suggested that the immigrant family living arrangements may explain their children's healthy behavioral outcomes, despite the many developmental challenges facing them such as poverty and adjustment stress (Fuligni, 1998; Harker, 2001; Landale & Oropesa, 2007; Mendoza, 2009; Suárez-Orozco et al., 2009; Turney & Kao, 2012). Theoretical and empirical research support that both family household structures and instability in these structures affect child behavioral development, although there are significant racial variations. Based on the review of prior studies, this study will first hypothesize how family household structures and stability will be associated with children's behavioral problems. Then I hypothesize the extent to which family living arrangements explain behavioral disparities by parental nativity.

#### ***Family structures: Two-parent and multigenerational family household structures***

It is well known that children in married-parent families tend to exhibit better developmental outcomes than their counterparts raised in other types of families (Brown, 2010; Carlson & Corcoran, 2001). Married parent families are less likely to experience economic hardship, and are more likely to have access to family or a social support system than are single parents (Cairney, Boyle, Offord, & Racine, 2003). In longitudinal samples of children, the more years children are exposed to single-parent families, the worse outcomes they show, across various developmental indicators (DeLeire & Kalil, 2002; Dunifon & Kowaleski-Jones, 2007; Wen, 2008). Empirical research has reported racial and ethnic variations, although findings are mixed. Some find that a single-parent family structure is more negatively related to white children's behavioral outcomes than to black and Hispanic children's (Dunifon & Kowaleski-Jones, 2002; McLanahan & Sandefur, 1994). Others find that Hispanic children are more affected by single-parent family structure than white and black children (Gibson-Davis & Gassman-Pines 2010). Based on these findings, I hypothesize that: single-parent family structure will be negatively associated with immigrant children's behavioral development, but the exact patterns may vary across racial groups.

The effect of growing up in a multigenerational household (living with grandparents) is less clear. From the social control perspective, having multiple adult figures in home can be beneficial as adult supervision and monitoring are important for children to be protected from engaging in problem behaviors (Hill et al., 2001: 274). Grandparents can contribute to children's development through provision of guidance, discipline, and care (Hofferth, Boisjoly, & Duncan, 1998). However, from the family stress process perspective, co-resident grandparents can increase the stress levels in the family when they are not meeting parental needs and contradict

on parenting beliefs and practices (Choi & Marks, 2006; Cramer & McDonald, 1996; Guo, Xu, Liu, Mao, & Chi, 2016).

Recent research suggests that the family context of multigenerational households (single-parent vs. two-parent) and racial identity (non-white vs. white) determine the role of grandparents in the raising of children. Children with single parents in multigenerational households do as well as their married-parent-nuclear family counterparts (DeLeire & Kalil, 2002; Rachel Dunifon & Kowaleski-Jones, 2007). By contrast, children in two-parent families who lived with grandparents showed worse behavioral problems (Kang & Cohen, 2017). Similar pattern is reported for educational outcomes (Monserud & Elder Jr., 2011). This may be because two-parent families tend to be in a position to provide care for co-resident grandparents rather than to receive support from them (Jayakody et al., 1993). Importantly, the patterns vary across racial groups, such that racial minority children benefit more from multigenerational household structures (Mollborn et al., 2011). Thus, I hypothesize that: multigenerational households will be positively associated with immigrant children's behavioral development, when they live with single parents, but negatively associated when they live with two parents. This pattern will be more pronounced among racial minorities.

***Family stability: parental marital disruption and grandparent transitions***

In the stress theory, change in family structure negatively affects child development through increasing family stress and weakening emotional security and bonds (Hill et al., 2001: 274). The number of family transitions are found to adversely affect children's externalizing behaviors, to even a greater extent than does the current family structure (Fomby & Cherlin, 2007). Family structural instability often coincides with economic instability, parental employment changes, family role conflicts, and inconsistent parenting, all of which can

compromise child well-being (Carlson & Corcoran, 2001; Crosnoe, Prickett, Smith, & Cavanagh, 2014). Focusing on parental divorce and (re)marriage, researchers have shown that changes in family structure are significantly associated with a great array of development outcomes (Cavanagh, 2008; Cavanagh & Huston, 2006; Cavanagh, Schiller, & Riegle-Crumb, 2006; DeLeire & Kalil, 2002). Importantly, the patterns also vary across race. Although parental union status changes exert negative effects on the socioemotional development for white (Fomby & Cherlin 2007) and Asian children (Sun & Li, 2007), the relationship does not apply to black children. Findings are mixed on Hispanic children (Lee & McLanahan, 2015; Sun & Li, 2007). Because black and Hispanic children face a number of disadvantages (e.g. poverty, low parental education), the experience of marital disruptions may have only marginal damage above and beyond the existing disadvantages (McLanahan & Sandefur, 1994). Thus, I hypothesize that: parental marital disruptions, as well as experiencing a greater number of transitions, will be negatively associated with immigrant children's behavioral development, but the negativity will not be as strong among black and Hispanic children.

Transitions involving grandparents can negatively affect child well-being. Although it is less investigated, the entry and exit of grandparents, if they are frequent, can be adverse to child socioemotional well-being, considering the effects of disrupted emotional attachment between children and grandparents (Crosnoe et al., 2014; Dunifon & Kowaleski-Jones, 2007; Landale et al., 2011; Mollborn et al., 2012). A few empirical studies emphasize racial variations, reporting that grandparent transitions negatively affect white children, but not black and Hispanic children (Dunifon & Kowaleski-Jones, 2007; Mollborn et al., 2012). No previous research is located on Asian children experiencing grandparent transitions. Despite lack of research, I hypothesize that grandparent transitions as well as a greater number of those transitions will be negatively

associated with immigrant children's behavioral outcomes, but the negativity will not be as strong among racial minorities.

### **The role of family structure and stability in the immigrant advantage**

Remarkably little work has carefully investigated the role of family living arrangements in the immigrant paradox. Turney and Kao measured family structure by parental marital status only, using a cross-sectional sample of first-grade children, and concluded that family structure played no role in explaining the immigrant paradox. However, no systematic effort has been made to decompose the differences in family structural compositions and stability by parental nativity across racial groups. In this study, the extent to which family living arrangements explain the behavioral disparities by parental nativity will be answered. Based on previous findings (Turney & Kao, 2012), it is expected that family structure may not fully account for the immigrant advantage, but immigrant families' greater marital stability might explain some of the behavioral disparities (Glick, 2010; Landale & Oropesa, 2007; Phillips & Sweeney, 2006). Even though the greater chance of experiencing grandparent transitions may disproportionately affect immigrant children (Richards et al., 1987; Van Hook & Glick, 2007), since the impact usually is not as strong as the impact of parental marital disruptions, this factor may not explain much of the behavioral disparities between immigrant and native children (see Mollborn et al., 2012).

## **Method**

### ***Data***

This study uses data from the Early Childhood Longitudinal Study—Kindergarten class of 2010-11 (ECLS-K: 2011). The ECLS-K: 2011, sponsored by the U.S. Department of Education's National Center for Educational Statistics, is a nationally representative longitudinal sample of children who began kindergarten in the Fall of 2010 and were followed through the 2015-16



school year. The original kindergarten sample includes approximately 18,000 children from about 970 schools, although since then children have been lost to attrition or nonresponse. The ECLS- K: 2011 data draw information from multiple sources, including parents, teachers, school administrators, and children to gather information on child development and school progress. The ECLS- K: 2011 provides a large enough sample to compare children by race and immigrant status.

The sample for this study was restricted to children who participated in all four waves: in the fall and spring of kindergarten, the spring of first grade, and the spring of second grade. About a third of cases were dropped due to missing information on race, ethnicity, or immigrant status. About a quarter of cases had missing outcome variables. Those who identified as Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, and multiracial (two or more races) were excluded from the analysis due to the small number of cases. The final analytical sample consists of children in the ECLS–K: 2011 who had information on the outcome and explanatory variables at any point in time during the 3-year period, resulting in a study sample of approximately about 9,600 children with 31,200 child-years. One child may have up to four records, and more than 5,200 children have records at each interview point. Of these, 61% are non-Hispanic White, 11% are non-Hispanic Black, 22% are Hispanic, and 6% are Asian.

### ***Measures***

#### *Children's behaviors*

Teachers reported how often children exhibited certain social skills and behaviors in the self-administered teacher questionnaire (total 26 items). Based on teachers' responses to these questionnaire items, several social skill scales were developed. In this research, two social skill outcomes were used: internalizing problem behaviors ( $\alpha=.73$  to  $.79$ ) and externalizing

problem behaviors ( $\alpha=.87$  to  $.89$ ). Internalizing behaviors and externalizing behaviors are related to children's capacity to interact positively in the classroom and to their executive function in the learning process, including fighting, arguing, anger, depression, low self-esteem, and impulsiveness (Tourangeau et al., 2017, p. 89). The following frequency scale was used to capture the level of problem behaviors: (1) never, (2) sometimes, (3) often, and (4) very often. Higher scores indicate that the child exhibited the behavior more often. For example, higher externalizing behavior scores indicate that the child exhibited externalizing behaviors, such as fighting or arguing, more often. Although ECLS-K: 2011 collected information on children's behaviors from parents, due to the relatively lower levels of reliability ( $.56$  to  $.73$ ), teacher's report was used.

#### *Race and ethnicity*

Children are categorized by race and parental immigrant status. Children are represented by the following groups: white with native-born parents, white with foreign-born, black with native-born, black with foreign-born, Hispanic with native-born, Hispanic with foreign-born, Asian with native-born, and Asian with foreign-born parents.

Children's race was reported by the parents or by field staff during visits if parent responses about the child's race were missing. Immigrant status was determined by the mother's nativity. Children's own place of birth, which distinguishes between first- and second-generation immigrants, was not considered because there are few meaningful differences between those as young as the current sample (Glick & Hohmann-Marriott, 2007). More importantly, the sampled children had already been living in the United States by the time they entered kindergarten; therefore, those children who migrated did so at a very young age, which may have precluded their experiencing stressful migration transitions and adjustment into a new educational system,

distinct risk factors for first-generation immigrants (Turney & Kao 2012). Thus, I will compare children of immigrants with co-ethnic children of U.S.-born parents. This decision is consistent with previous research using the ECLS-K 1998-1999 cohort (Crosnoe, 2006; Turney & Kao, 2009, 2012).

### *Family household structures*

Family and household structures are measured by parental union status and the presence of grandparents. Although there are other types of extended family members, due to their non-significant effects on most children, only co-resident grandparents were considered (see Mollborn et al., 2011). Parents reported information about their marital status at the time of survey. Because there was no significant difference in children's outcomes between those never married and previously married (separated, divorced, or widowed) parents, they were collapsed into one category. Parents also reported household members, excluding those staying temporarily; thus, households with co-resident grandparents are considered extended households. Importantly, such extended households influence children differently depending on parents' marital status: co-resident grandparents in two-parent family households are negatively associated with child development, whereas those in single-parent families are beneficial for children (DeLeire & Kalil, 2002; Kang & Cohen, 2017). Therefore, I differentiate extended household structures by parental marital status, as follows: two-parent nuclear family household (reference group), two-parent extended, single-parent nuclear, and single-parent extended family household.

Based on parental marital status and grandparent co-residence, I measure 1) the average number of years children have spent time in each family household structure over the survey period (child-specific mean) and 2) the number of years spent outside of the mean family

structure (deviation). Additionally, I measure 3) the total number of parental union status changes (e.g. divorce, marriage, or remarriage) and 4) the total number of grandparent transitions (e.g. move in and out of household). Family and household structures were measured every six months between the fall of 2010 and the spring of 2011; as of 2012, they were measured once per year. During the non-interview periods (the fall of 2011 and 2012), I consider the family structure to be the same as that recorded during the previous interview year. For example, if a child was living in a single-parent nuclear family household in the spring of 2011, that child would be coded as living in the same structure in the fall of 2011.

#### *Other controls*

I control for a number of covariates that are associated with children's behavioral development. They include child age (in months), sex (0=female, 1=male), parental education (0=less than high school, 1=high school graduate, 2=some college, and 3=bachelor or higher), and whether the child attended center-based care before kindergarten (0= not attended, 1=attended). Note that parental education measures the mother's or father's highest education level, whichever is higher. I also control for time-varying covariates such as the number of people younger than age 18 in the household, mother's employment status (0=not employed, 1=employed part-time or full-time), and family poverty status (0=above the poverty line, 1= at 100-199% poverty, 2= below 200% poverty). For the time-varying covariates, I measure the propensity of a higher-level entity (in the categorical case) or the average level (in the continuous case).

#### *Analytical Strategies*

Problem behaviors are regressed on measures of family and household structure and instability over the first year in kindergarten through the second year in grade school. Random

effects regression models with a “hybrid” approach was employed. Random effects regression models allow researchers to consider dependency over time and individual by having a residual term at each level; thus, the random effects models calculate correct standard errors (Teachman, 2011). Strengths of a random effects model include statistical power, generalizability, and its ability to estimate time-invariant characteristics such as race, ethnicity, and nativity (Bell & Jones, 2015; Teachman, 2011). When the models are fully specified, random effects models are efficient and preferable to fixed effects models. The latter only estimates within-child change and controls for all measured and unmeasured time-constant variables, including race and nativity. Because the current research question is to what extent family living arrangements explain children’s behavioral disparities by parental nativity status, a random effects solution is appropriate.

Importantly, random effects models assume that the correlation structure is independent of all covariates included in the model and the residuals are normally distributed (Allison, 2005). If the residuals are correlated within children, defined as an individual effect, and the explanatory variables are correlated with the individual effect, the random effects estimations will be biased – heterogeneity bias (Li, 2011). In order to address this issue, I include the within-child effects (deviation) in addition to the between-child effects (mean) of family and household structures (Bell & Jones, 2015; Raudenbush, 2009). The mean term measures the propensity of a family structure to be in a certain form across the sample time period, and the deviation measures the variance from that family form. By modeling the heterogeneity bias across two different levels, this “hybrid” approach succeeds not only in accounting for the correlation between covariates and residuals but also identifying the effects of family structural transition (Bell & Jones, 2015).

The Blinder-Oaxaca decomposition is used in order to quantify the contribution of explanatory variables to child behavioral disparities by parental immigrant status. Using the basic premise of Blinder-Oaxaca model (Guarnizo-Herreño & Wehby, 2012, p. 860; Jann, 2008), the magnitude of conditional mean outcome differences is estimated into two parts: the first part is the outcome differential explained by the group differences in levels of predictors and the second part is remaining unexplained difference.

### **Descriptive Results**

Table 1 presents descriptive statistics for the sample. White children with native-born parents account for nearly three fifths of the sample (58%). Hispanic children of immigrants is the next largest group (12%), followed by Hispanic native children (10%) and black native children (10%). About 5 percent of children are Asian immigrant children, and about 3 percent are white immigrant children. Asian native- and Black immigrant children account for about 1 percent of the sample. More than two fifths of children in the sample live below the poverty line and one in five children is in severe poverty (200% poverty threshold). About 8 percent of parents did not graduate from high school. About a quarter of parents have a high school diploma or GED. More than 44 percent of parents attained a bachelor's degree or higher. Nearly three fifths of children received center-based care before entering kindergarten (57%). About two thirds of children live with mothers working either part- or full-time.

Table 2 shows the means of behavioral outcomes and key family environment variables by race and immigrant status. Children of immigrants are compared with those of natives in the same race, using bivariate linear or poisson regression analyses depending on the variable of interest. Children of immigrants generally show a lower incidence of behavioral problems compared with those of natives in the same race. However, the immigrant advantage is clearer

for externalizing behaviors. All racial minority immigrant children display better externalizing behaviors than their co-ethnic native children counterparts. Except for among Hispanic children, there is no significant difference in internalizing behaviors by immigrant status.

Regarding the family environment, immigrant families are apparently more protective in both family structure and stability measures. For descriptive purposes, I calculate the total number of years children have spent time in each family household structure between the beginning of kindergarten and the end of their second year in elementary school, a period of three years. Children of immigrants, particularly black and Hispanic children, spend more time living in two-parent nuclear family households than co-ethnic children of natives. For example, black native children spent .96 year living in two-parent nuclear family households, whereas black immigrant children spent 1.87 years. In terms of family instability, immigrant children, particularly those with European and Asian origins, are less likely to experience a transition due to changes in parental union status. By contrast, Hispanic immigrant children are more likely to experience family turbulence. There is no clear pattern by race or immigrant status for grandparent transitions.

## **Analytical Results**

### ***Internalizing behavioral problems***

#### *White children*

Table 3 presents the analytical results for internalizing problem behaviors. Only statistically significant associations are presented. Among white children, having an immigrant parent presents neither an advantage nor a disadvantage (Model 1). Model 2 shows that family structures other than a two-parent nuclear family household are associated with higher levels of internalizing behaviors. For example, the longer a child spent in a single-parent extended

household structure, the worse internalizing behaviors the child showed by 0.12 point, compared with those in two-parent nuclear family households. Transitions into single-parent nuclear family households increase internalizing behaviors within a child; transitions out of that family structure decrease internalizing behaviors by 0.04 point ( $p < .05$ ). The number of parental union status changes is significantly associated with higher levels of internalizing behaviors by 0.03 point ( $p < .05$ ). Grandparent transitions have no association with children's internalizing behaviors.

#### *Black children*

Similar to the patterns observed in white children, there is no significant difference in the level of internalizing behaviors between immigrant and native children, regardless of other control variables (Model 1). Exposure to alternative family structures and family transitions does not affect black children's behavior problems (Model 2).

#### *Hispanic children*

The immigrant advantage is salient among Hispanic children. In Model 1, children of immigrants show lower levels of internalizing behaviors, compared with native children (-0.09,  $p < .0001$ ). Model 2 shows that a longer exposure to a single-parent family structure, with or without grandparents, has a significantly negative association with internalizing behaviors. (Single-parent nuclear: 0.074,  $p < .001$ , single-parent extended: 0.102,  $p < .05$ ). None of family transitions exert no significant effects on internalizing behaviors. The immigrant advantage was reduced by about 20 percent but remain significant ( $p < .0001$ ).

#### *Asian children*

Model 1 shows that having an immigrant parent is associated with lower levels of internalizing behaviors (-0.065,  $p < .05$ ). In Model 2, none of the family structures is significantly associated with internalizing behaviors. Only transitions into (out of) a nuclear single-parent



family household substantially increase (decrease) internalizing behaviors within a child (0.217,  $p < .05$ ). The number of family and household structural transitions exert no significant effects on internalizing behaviors. Importantly, the immigrant advantage becomes marginally associated with Asian children's internalizing behaviors ( $-0.053$ ,  $p < .10$ ).

### *Externalizing behavioral problems*

Table 4 presents the analytical results for externalizing problem behaviors. The results for externalizing behaviors are largely similar to those of internalizing behaviors, except for among black children. Therefore, the following analytical report will focus on the relationship among immigrant status, family household structures, and family stability for black children's externalizing behaviors. For children from other racial groups, I will focus on reporting patterns that are distinct from the results for internalizing behaviors.

#### *White children*

Similar to the patterns noted for internalizing behaviors, there is little difference in externalizing behaviors between immigrant children and native children, even after controlling child and family background (Model 1). In Model 2, alternative family structures are associated with higher levels of externalizing behaviors. However, transitions into (or out of) a single-parent *extended* family household decrease (increase) externalizing behaviors. Transitions into or out of single-parent *nuclear* family households are not significantly associated with externalizing behaviors, which differs from the pattern observed for internalizing behaviors. In addition, while the number of parental union status changes significantly affects child internalizing behaviors, the same risk factor does not exert significant effects on externalizing behaviors.

#### *Black children*

While black immigrant children show no advantage when it comes to internalizing behaviors, there is a significant difference by parental immigrant status in externalizing behaviors in Model 1 ( $-0.157, p < .05$ ). Model 2 shows that single-parent nuclear family households are significantly associated with higher levels of externalizing behaviors. However, none of the family and household instability variables exerts significant effects on externalizing behaviors. Importantly, the immigrant advantage reduces to a non-significant level ( $-0.05$ , no sig).

#### *Hispanic children*

Similar to the results for internalizing behaviors, Hispanic immigrant children show better externalizing behaviors in Model 1 ( $-0.129, p < .0001$ ). Model 2 shows that no type of alternative family household structure is significantly associated with externalizing behaviors, unlike those patterns observed for internalizing behaviors. Family and household transitions have no significant association with externalizing behaviors, similar to the patterns for internalizing behaviors. The immigrant advantage reduces by about 10 percent, but remains significant ( $-0.117, p < .0001$ ).

#### *Asian children*

Unlike the results for internalizing behaviors, there is a small but significant difference in externalizing behaviors by parental immigrant status. In Model 1, Asian immigrant children show better externalizing behaviors ( $-0.071, p < .05$ ). Model 2 shows that none of the family household structures is significantly associated with externalizing behaviors. Neither family nor grandparent transitions nor the number of those transitions is significantly associated with externalizing behaviors, unlike the results for internalizing behaviors (e.g. transition to single-

parent family increases internalizing behaviors). After adding the family structure and instability variables, the immigrant advantage still holds (-0.073,  $p < .05$ ).

### ***Decomposition***

Table 5 presents that the total difference in predicted means of child behavioral outcomes by parental nativity and the percentages of behavioral disparities explained by the regression models. For interpretation purpose, explanatory variables are grouped into three categories: family structures (e.g. number of years in each family structure), family transitions (e.g. number of years outside of each family structure and total number of family disruptions), and controls. The largest difference between immigrant and native children was in externalizing behavioral problems for black children (0.196). The explanatory variables accounted for 70 percent gap. Specifically, family structures explained 52 percent, family transitions explained only 2 percent, and controls explained 17 percent of the gap. Similarly, family structures played the most important role in explaining the gap in internalizing behaviors (26%) and externalizing behaviors (8%) for Hispanic children. For Asian children, control variables played the most important role in behavioral development, yet they contributed to widening the gaps. Family structures (13%) and transitions (6%) explained the Asian immigrant children's advantage in internalizing behaviors to some extent, but only family structures (10%) explained the gap in externalizing behaviors. For white children, family structures explained 41 and 27 percent of the gap in internalizing and externalizing behaviors, respectively, but there were only marginal gaps between immigrant and native children.

### **Discussion**

This paper examines the relationships between family organization and child behavioral functioning in terms of their contribution to the immigrant paradox, using a longitudinal sample

from the ECLS-K 2011. To extend the previous literature, I consider both family and household structures and their structural changes to explain the immigrant paradox. The study demonstrates that immigrant children are more likely to spend their early childhood living with two parents and less likely to experience family transitions, compared with native children. Overall, the results provide some evidence for the protective immigrant family environment hypothesis. However, there are important variations by race and behavioral outcomes.

First, both family structure and family stability are significantly associated with children's behavioral problems. For white children, single-parent family structures, whether nuclear or extended, are associated with higher levels of both internalizing and externalizing behaviors. Parental union status changes and the number of such changes are positively (unfavorably) associated with behavioral problems. For black children, family transitions exert no significant effects; but a nuclear (not extended) single-parent family structure exerts a deleterious effect on externalizing behaviors. Similarly, for Hispanic children, single-parent family structures, but not family transitions, have harmful effects on internalizing behaviors. These findings are consistent with previous research (McLanahan & Sandefur, 1994). By contrast, for Asian children, single-parent family structures alone have no significant effect, but parental union status changes substantially increase internalizing behaviors (Sun & Li, 2007). Neither grandparent transitions nor a greater number of those events exert significant effects on children's behaviors for all racial groups.

Second, family living arrangements partially or fully explain the immigrant paradox in problem behaviors for some children. For black children, the disparities in externalizing behaviors by parental immigrant status were substantially explained by the family household structures (in Model 2 in Table 4). The differential distributions of family structures alone, for

example, the greater likelihood of living with a single parent among native black children vs. black immigrant children (0.96 vs. 1.81 years), explained more than half of behavioral disparities between them. For Hispanic children, the family household structures explained 26 percent of internalizing behavioral advantage and 8 percent of externalizing behavioral advantage, although the immigrant advantage remain significant even after controlling for family living arrangements (Model 2 in Table 3 & 4). Although both family structures and transitions altogether explained 19 percent of the immigrant advantage in internalizing behaviors in Table 5, neither substantially explained the immigrant advantage for Asian children (in Model 2 in Table 3).

Notably, the alleged benefits of multigenerational households were not evident in this sample, in contrast with the immigrant paradox literature. Co-residence with grandparents was either negatively or not significantly associated with behavioral outcomes. For black, Hispanic, and Asian children, grandparents had no impact on behavioral outcomes. For white children, living in a multigenerational household was unfavorably associated with behavioral outcomes. Unexpectedly, single-parent extended households are not more beneficial than two-parent extended households, even among racial minorities. Overall, the results raise questions about the validity of the argument that immigrant children's behavioral advantage is due to their multigenerational family environment.

### *Limitations*

There are several limitations in the current research. First, the number of disrupted families among immigrant groups is relatively small. For example, 96 percent of both white and Asian immigrant children never experienced parental union status changes. Although the estimated deleterious associations between transitions into a nuclear single-parent family household and internalizing behaviors exceed the statistically significant level for both white and

Asian children, a larger number of disruption cases would enhance the statistical power for the estimations, given the smaller sample size for white- and Asian immigrant groups.

In addition, this study does not consider other aspects of family environment, such as parent-child relationship quality or parenting practices, despite their importance in child development. Child development research has reported the importance of supportive parenting practices, parenting stress, and cognitively stimulating environments in children's behavioral development (Leidy, Guerra, & Toro, 2010; Rodriguez, Umaña-Taylor, Smith, & Johnson, 2009). For example, Leidy and colleagues found that family cohesion and positive parenting predicted improvements in children's social competence for Latino immigrant families.

Although the immigrant paradox literature has focused on the role of family living arrangements, other aspects of family environment (e.g. family socialization goals) deserve addressing in future research.

#### *Contributions & Policy Implications*

Beyond the limitations, the current research contributes to theoretical developments in understanding the relationship between family organization and child behavioral functioning for immigrant children, providing empirical evidence for the source of the immigrant paradox. The present study's findings provide some implications for social and immigration policies. For black and Hispanic children, there is a greater need to support single-parent families. These parents are largely limited to low-skilled and low-income jobs because of their low human capital, the shortage of available hours for work, and more fundamentally the inequities faced by women in the labor market (Richards & Schmiede, 1993). The current welfare policy and programs have failed to address the needs of single-parent families (Edin & Kissane, 2010). New policies should offer single parents alternatives to entrenched parenting arrangements and support them in

working full-time in skilled professions, as this is the only sure way out of poverty apart from re-partnering (Summerfield, Young, Harman, & Flatau, 2010). For Asian children, provision of family services for those who experience marital disruptions is more crucial. Parents, teachers, and experts in related fields should note that in families from a society where marital dissolution is less common, parental union status changes may be particularly problematic for children.

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Table 1. Unweighted Description of Analytical Sample

	M	S.D.	Min	Max
<i>Race and parental immigrant status</i>				
White native	0.58	0.49	0	1
White immigrant	0.03	0.17	0	1
Black native	0.10	0.30	0	1
Black immigrant	0.01	0.11	0	1
Hispanic native	0.10	0.30	0	1
Hispanic immigrant	0.12	0.32	0	1
Asian native	0.01	0.10	0	1
Asian immigrant	0.05	0.22	0	1
<i>Family poverty status</i>				
below 200% poverty	0.22	0.42	0	1
100-199% poverty	0.21	0.41	0	1
above the poverty line	0.57	0.50	0	1
<i>Parental education</i>				
Less than High school	0.08	0.27	0	1
HS graduate	0.23	0.42	0	1
Some college	0.25	0.44	0	1
Bachelor's or more	0.44	0.50	0	1
<i>Other family characteristics</i>				
Number of children (age < 18)	2.53	1.12	1	13
Maternal employment	0.66	0.43	0	1
<i>Child characteristics</i>				
Child age (months)	67.56	4.40	44.81	93.9
Child sex	0.51	0.50	0	1
Center-based care	0.57	0.50	0	1
N	31,249			

Note: Source is Early Childhood Longitudinal Study—2011 Kindergarten cohort children aged 5 – 8 years between 2010 and 2013

Table 2. Descriptive Statistics for Dependent and Independent Variables, by Race-ethnicity and Parental nativity

	White Native		White Immigrant		Black Native		Black Immigrant		Hispanic Native		Hispanic Immigrant		Asian Native		Asian Immigrant	
	M	S.D.	M	S.D.	M	S.D.	M	S.D.	M	S.D.	M	S.D.	M	S.D.	M	S.D.
Internalizing BPI	1.51	.48	1.46	.47	1.52	.53	1.58	.55	1.53	.52	1.47	.49	1.44	.42	1.38	.41
Externalizing BPI	1.62	.60	1.53	.54	1.82	.70	1.72	.68	1.66	.62	1.57	.57	1.51	.48	1.44	.46
Total # of years in HH																
Nuc, 2-parent	2.27	1.13	2.46	.94	.96	1.26	1.87	1.23	1.65	1.32	1.84	1.26	2.28	1.14	2.18	1.16
Ext, 2-parent	.10	.48	.15	.55	.08	.40	.25	.76	.25	.74	.17	.61	.25	.77	.46	.98
Nuc, 1-parent	.37	.86	.19	.65	1.30	1.28	.44	.90	.63	1.06	.68	1.06	.30	.78	.11	.50
Ext, 1-parent	.10	.47	.01	.09	.38	.89	.15	.59	.26	.73	.15	.57	.07	.35	.05	.33
Total # union change	.14	.42	.06	.30	.20	.54	.19	.57	.24	.57	.32	.64	.15	.49	.05	.26
No change (%)	.89		.96		.85		.88		.82		.77		.90		.96	
One change	.09		.04		.10		.07		.12		.15		.07		.02	
Two change	.02		.00		.04		.03		.05		.07		.02		.01	
Three change	.00		.00		.01		.02		.01		.01		.01		.00	
Total # GP transitions	.07	.29	.09	.36	.15	.41	.11	.34	.13	.40	.09	.33	.09	.30	.14	.40
No change (%)	.94		.94		.87		.90		.89		.93		.92		.89	
One change	.05		.04		.11		.08		.09		.06		.08		.09	
Two change	.01		.02		.02		.01		.02		.01		.01		.02	
Three change	.00		.00		.00		.00		.00		.00		.00		.00	
Parental education																
< High school	.02	.14	.04	.19	.07	.26	.14	.35	.10	.30	.38	.49	.01	.09	.04	.21
HS graduate	.19	.39	.11	.32	.33	.47	.31	.46	.30	.46	.36	.48	.07	.26	.11	.31
Some college	.27	.44	.20	.40	.36	.48	.31	.47	.30	.46	.13	.34	.13	.34	.11	.32
Bachelor's or more	.52	.50	.66	.48	.23	.42	.24	.43	.30	.46	.12	.33	.79	.41	.73	.44
Poverty status																
below 200%	.11	.31	.10	.30	.43	.49	.45	.50	.30	.46	.58	.49	.07	.25	.13	.34
100-199%	.19	.39	.21	.41	.28	.45	.30	.46	.25	.43	.25	.43	.11	.31	.16	.37
above the poverty	.70	.46	.69	.46	.29	.46	.25	.44	.45	.50	.17	.38	.82	.38	.70	.46
Maternal employment	.70	.41	.58	.45	.69	.41	.66	.42	.63	.44	.48	.45	.75	.39	.64	.44
Child sex (%)	.51		.51		.53		.43		.52		.51		.39		.45	
Center-based care (%)	.60		.60		.52		.45		.53		.48		.55		.57	
Number of children	2.47	1.02	2.38	1.18	2.59	1.26	3.03	1.62	2.64	1.19	2.82	1.28	2.39	.99	2.25	1.00

Note: Source is Early Childhood Longitudinal Study—2011 Kindergarten cohort children aged 5 – 8 years between 2010 and 2013



Table 3. Hybrid Random Effects Regression Analysis of Children's Internalizing Behavior Problems

	White		Black		Hispanic		Asian	
	M1	M2	M1	M2	M1	M2	M1	M2
Immigrant parents (ref. US-born parents) (S.E)	-.038 (.031)	-.018 (.031)	.030 (.047)	.051 (.050)	-.093*** (.018)	-.070*** (.019)	-.065* (.030)	-.053 (.032)
Mean years in each HH (ref. Nuclear, 2-parent)								
Extended, 2-parent		.099** .030		-.042 .075		-.017 .037		.010 .044
Nuclear, 1-parent		.091*** .017		.041 .033		.074** .024		.058 .066
Extended, 1-parent		.122*** .032		-.015 .049		.102** .039		-.017 .110
Deviation from each HH (ref. Nuclear, two- parent)								
Extended, 2-parent		-.039 (.036)		-.033 (.088)		.097 (.050)		.024 (.057)
Nuclear, 1-parent		.040* (.020)		.006 (.043)		.033 (.026)		.217* (.091)
Extended, 1-parent		-.004 (.039)		.017 (.070)		.099 (.054)		.044 (.114)
Total number of parental union status changes		.030* (.012)		.030 (.022)		.025 (.014)		.034 (.045)
Total number of grandparent transitions		.019 (.018)		.031 (.034)		-.030 (.024)		-.021 (.036)
Intercept	1.716** *	1.601** *	1.451** *	1.429** *	1.614** *	1.559** *	1.824** *	1.796** *
R <sup>2</sup>	.082 .032	.082 .037	.190 .033	.193 .035	.129 .016	.131 .023	.207 .013	.210 .016

Note: All models control for child and family characteristics. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Table 4. Hybrid Random Effects Regression Analysis of Children's Externalizing Behavior Problems

	White		Black		Hispanic		Asian	
	M1	M2	M1	M2	M1	M2	M1	M2
Immigrant parents (ref. US-born parents)	-.045	-.019	-.157*	-.048	.129***	.117***	-.071*	-.073*
	.043	.043	.069	.073	(.024)	.026	.034	.037
Mean years in each HH (ref. Nuclear, 2-parent)								
Extended, 2-parent		.157*** (.042)		.123 (.108)		.057 (.050)		-.007 (.050)
Nuclear, 1-parent		.143*** .024		.225*** .047		.061 .032		.032 .075
Extended, 1-parent		.232*** .044		.118 .071		.033 .052		-.067 .125
Deviation from each HH (ref. Nuclear, 2-parent)								
Extended, 2-parent		-.025 .034		-.051 .092		.044 .048		-.049 .056
Nuclear, 1-parent		-.022 .019		.042 .045		-.001 .025		-.049 .090
Extended, 1-parent		-.096** .037		.067 .073		.032 .051		-.090 .113
Total number of parental union status changes		.024		.021		.005		-.083
		.017		.032		.018		.052
Total number of grandparent transitions		.019		.063		-.049		-.060
		.025		.048		.032		.041
Intercept	1.858** *	1.712** *	1.471** *	1.308** *	1.791** *	1.762** *	1.856** *	1.887** *
	.111	.112	.277	.277	.171	.173	.238	.239
R <sup>2</sup>	.086	.095	.089	.102	.069	.072	.073	.080

Note: All models control for child and family characteristics. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Table 5. Decomposition of disparities in children’s internalizing and externalizing behaviors by parental nativity status across racial and ethnicity.

	Internalizing				Externalizing			
	White	Black	Hispanic	Asian	White	Black	Hispanic	Asian
Total difference (native-immigrant)	.024	-.042	.068	.061	.067	.196	.124	.049
Structures <sup>a</sup> , %	41	-36	26	13	27	52	8	10
Stability <sup>b</sup> , %	11	-7	-6	6	2	2	-3	-13
Control <sup>c</sup> , %	-50	34	-18	-21	16	17	6	-31
Explained, <sup>d</sup> %	2	-9	2	-2	45	70	10	-35
Unexplained, %	98	109	98	102	55	30	90	135

a: family structures: number of years in each family structure.

b: family transitions: number of years outside of each family structure and total number of family disruptions.

c: control: parental education, family poverty status, maternal employment, number of children, child age, sex, and center-based care receipt.

d: Proportion of parental nativity disparities in behavioral outcomes explained and unexplained by explanatory variables.