UNIVERSITY OF CALIFORNIA, IRVINE

The Role of Family Household Composition and Household Transitions in the Educational Performance of Latina/o Children of Immigrants

DISSERTATION

submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in Sociology

by

Daniel Millán

Dissertation Committee:
Associate Professor Kristin Turney, Chair
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DEDICATION

To *familia* Millán and Ovando, for their love and support.

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CURRICULUM VITAE

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"Mediating Illegality: The Role of Federal, State, and Institutional Policies in the Educational Incorporation of Undocumented College Students." With Laura E. Enriquez, Martha Morales Hernandez, and Daisy Vasquez Vera. UC *International Migration Conference*. Berkeley, CA. May 2017.

"Immigrant Detention: Divergent Experiences Among African, Latino, Transgender, and Gay Detainees in the United States." With Tania DoCarmo. *Pacific Sociological Association*. Portland, OR. April 2017.

"Understanding the Impact of Mass Immigrant Detention and Deportation: An Analysis of Migrant Health among Gay and Transgender Immigrants in Detention." *California Sociological Association*. Riverside, CA. November 2016.

"Filling Remaining Gaps: Lessons from Across the University of California System." With Laura E. Enriquez, Vanessa Delgado, and Martha Morales Hernandez. At the *Incorporating Undocumented Students and Youth: A UC-Wide Workshop of Research and Policy Recommendations*. Irvine, CA. October 2016.

"Best Practices to Promote the Educational Equity of Undocumented Students." With Laura E. Enriquez, Vanessa Delgado, Miroslava Guzman, Martha Morales Hernandez, and Daisy Vasquez Vera. *Landscapes of Displacement: Borderlands in Comparative Perspective Symposium*. San Diego, CA. September 2016.

"The Early Educational Performance of Children in Single-Parent Immigrant Households." At the *American Sociological Association Conference*. Seattle, WA. August 2016.

"The Educational Performance of Children in Single-Parent Immigrant Households." UCI Data Science Initiative. Irvine, CA. September 2015.

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ABSTRACT OF THE DISSERTATION

The Role of Family Household Composition and Household Transitions in the Educational Performance of Latina/o Children of Immigrants

By

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Associate Professor Kristin Turney, Chair

Latina/o children of immigrant parents are a growing proportion of the population, yet we know little about the association between family household composition and their academic performance. Family household composition encompasses the number of parents and the types of extended relatives in a household. Children now spend more time in a single-parent household and live with extended relatives such as grandparents, aunts, or uncles at greater rates. Family household composition is important because who children live with has implications for their early academic performance. I draw on resource deprivation and instability-stress theories to explore how family household composition and household transitions shape the educational performance of Latina/o children of immigrants. Using the nationally representative ECLS-K:2011 data for children enrolled in kindergarten in the spring of 2011, I find key differences in children's membership in single-parent and extended households when considering race/ethnicity, immigrant generation, and socioeconomic status. I also examine the impact of family household composition on mathematics and reading outcomes and find that Latina/o children of immigrant parents perform lower than White children of native-born parents. Lastly, I analyze the role of household disruptions involving the exit or entry of either a parent or

extended relative between kindergarten and fourth grade and find that they can be at times detrimental for children's later academic performance. Household compositions and transitions explain differences in academic outcomes by race/ethnicity and immigrant generation with Latina/o children of immigrant parents underperforming compared to Latina/o children of native-born parents. I contribute to further understanding the detrimental role family household composition and household transitions can play in the academic performance of Latina/o children of immigrants.

Chapter 1

Introduction

Family household composition encompass the number of parents in the household and the types of extended relatives in the home, including grandparents, aunts, uncles, and other relatives. Households in the United States have undergone a contemporary shift in composition resulting in a greater likelihood of children living with one parent in the home (Amato and Patterson 2017, Sun and Li 2013) and a higher likelihood of living with extended relatives (Pilkauskas and Cross 2018). These trends are partially due to demographic and economic changes, alongside the growing importance of children's ties with extended relatives (Dunifon 2013). Shifts in family household composition prompt research on the consequences of children living with a single parent (Gibson-Davis and Gassman-Pines 2010, Hummer and Hamilton 2010) and extended relatives (Keene and Batson 2010). Children in a single-parent household typically perform lower academically compared to peers in two-parent households (Lee and McLanahan 2015). Similarly, living with extended relatives can have negative or positive implications for children's' academic performance, depending on the type of extended relative and the outcome measured (Keene and Batson 2010). Despite a focus on family household composition and its consequences, little contemporary work has explored these issues among Latina/o children with immigrant parents, including 1.5th generation immigrant children and 2nd generation U.S.-born children.

In addition to understanding family household composition, it is important to recognize that households are dynamic and children can experience household disruptions, involving the entries or exits of a parent or extended relatives (Mollborn, Fomby and Dennis 2012, Sun and Li 2013). Disruptions are potentially harmful and can produce stress, trauma, and insecurity among

household members and result in adverse academic outcomes (Ackerman et al. 1999, Adam 2004, Ziol-Guest and McKenna 2014). For example, children who experience disruptions from a two-parent household can be academically disadvantaged compared to children who remain in two-parent households (Brown, Stykes and Manning 2016). Yet, children who remain in a single-parent household can perform as well or better compared to children who experience multiple disruptions (Sun and Li 2013). Disruptions involving an extended relative are less understood, but can also have negative implications for children's academic outcomes if they lose a member who provided care and support or other benefits (Mollborn, Fomby and Dennis 2012). However, most work on household disruptions among Latina/o children of immigrant has focused on family separation tied to immigration laws and policies (Dreby 2012, Enchautegui and Menjívar 2015, Hagan, Eschbach and Rodriguez 2008), without analyzing disruptions broadly or disruptions involving extended relatives.

Researchers have explored the family household composition of Latina/o immigrant households (Hall, Musick and Yi 2019, Landale, Thomas and Van Hook 2011) and children's experiences with family separation (Dreby 2012, Hagan, Eschbach and Rodriguez 2008); however, these studies often rely on non-representative data, do not analyze households with children, or lack assessments of the association between family household composition and academic outcomes. Yet, these studies set a foundation for analyzing family household composition since it is consequential for members in the household and differences between immigrant and non-immigrant households exist.

The family is a focus of immigration research, particularly children's wellbeing and outcomes since they can reflect incorporation patterns and intergenerational mobility (Crosnoe and Turley 2011, Suárez-Orozco, Rhodes and Milburn 2009). Latina/o children are a growing

proportion of students, representing 25% of K-12th grade students in the United States in 2016, an increase from 16% in 2000 (Lopez, Krogstad and Flores 2018). Further, in 2014, 17.5 million children under 18 lived with at least one immigrant parent, accounting for 25% of the 69.9 million children under 18 in the United States (Batalova and Zong 2016). The size and growth of this population warrant analyzing Latina/o family household composition and its consequences for children's academic performance.

To fill a gap in understanding family household composition among Latina/o children with immigrant parents, I analyze how race/ethnicity and immigrant generation shape the likelihood of children living with one or two parents and with different types of extended relatives. I then assess the association between family household composition and academic performance during kindergarten by race/ethnicity and immigrant generation. Lastly, I analyze the role of household disruptions between kindergarten and fourth grade on children's fourth grade academic performance. I use the nationally representative ECLS-K:2011 dataset (Tourangeau et al. 2015) and draw on resource deprivation and instability-stress theories to explore the association between family household composition, household disruptions, and children's math and reading test scores. I present three contributions to the literature:

1) I assess factors associated with a child's likelihood of living with a single parent or with different types of extended relatives, including children who live with vertical and horizontal relatives. I consider difference in family household composition by race/ethnicity and immigrant generation.
2) I explore the consequences of family household composition for Latina/o children of immigrant parents academic performance compared to White children.

3) I explore the role of household disruptions beginning in kindergarten on children's academic performance in later grades and consider the role of race/ethnicity and immigrant generation.

Family Household Composition and Long-term Consequences

Understanding the family household composition of Latina/o children of immigrant parents is important since households are a child's first site of socialization, shape children's wellbeing, and can reproduce inequality (Lee and McLanahan 2015). As a key developmental period, young children are heavily dependent on family during early childhood (Crosnoe 2007). Further, early childhood can have lasting implications for children's educational performance along the life course (Entwisle, Alexander and Olson 2005). For instance, Alexander, Entwisle and Olson (2014) argue that family origins cast a "long shadow," based on whether children grow up in a positive or negative environment, which follows children from early schooling, adolescence, and into adulthood.

The family is central in mobility and the reproduction of inequality for a child's educational trajectories and life course outcomes (Coltrane, Parke and Adams 2004, McLanahan and Percheski 2008). Children who live in a single-parent household for an extended time can be at an academic disadvantage with negative implications for successful transitions into adulthood (Deleire and Kalil 2002, Frisco, Muller and Frank 2007, Garg, Melanson and Levin 2006). Similarly, Amato and Patterson (2017) found that children who are raised in a single-parent household are more likely to also become single parents, further reproducing inequality. Therefore, a focus on family household composition can highlight how Latina/o children with immigrant parents fare academically in differing household arrangements as they begin schooling with lasting implications.

Comparing Latina/o Children to White Children

Researchers typically compare Latina/o children to White children because there are key structural differences shaping children's academic performance (Crosnoe and Ansari 2015, Suárez-Orozco, Rhodes and Milburn 2009). For instance, Latina/o children are a fast growing group of children in the United States (Patten 2016). Yet, their needs are not met since they tend to lag academically compared to White native-born children in early childhood and across different points in the educational pipeline (Crosnoe and Turley 2011, Suárez-Orozco, Rhodes and Milburn 2009). Latina/o students face discrimination, tracking, and a lack of access to educational opportunities (Crosnoe and Turley 2011, Yosso 2005). In terms of educational disparities, Latina/o children of immigrant parents perform lower academically, access extracurricular activities at lower rates, graduate from high school at lower rates, and attend college at lower rates compared to White children with native-born parents (Michel and Durdella 2018). Persisting issues of educational access and equity motivate comparisons between Latina/o children and White children.

White children with native-born parents tend to belong to socioeconomically advantaged households compared to Latina/o children with immigrant parents (Foster and Kalil 2007, Kochhar and Cilluffo 2017). This position can translate to a greater availability of resources inside the home, access to higher quality schools, and reflect parents who can more easily navigate U.S. educational systems (Crosnoe and Kalil 2010, Crosnoe and Turley 2011). Yet, we understand relatively little about how family household composition may be associated with educational disadvantaged in early childhood (Dunifon and Bajracharya 2012). Disparate family household composition may further compound the relatively disadvantaged positions Latina/o children of immigrant parents occupy if living with a single parent or with extended relatives

translates to academic disadvantages. Therefore, analyzing a range of factors, including family household composition, may highlight which factors contribution to differences in academic performance during early childhood.

Latino Ethnic Groups

Comparing Latina/o children to White children is useful, however variability among Latino ethnic groups exists with distinct family household composition patterns. Mexican children with immigrant parents represent the largest Latino ethnic group in the United States with the highest enrollment in K-12th grade and are the most represented in the sample of Latina/o children in the ECLS-K:2011. Restrictive social and economic policies increased the likelihood of Mexican immigrants settling in the United States, rather than cyclically migrating (Jiménez 2008, Parrado, MacDonald and Sampson 2012). Further, the children of immigrants are growing up in a context where a significant number have parents who are undocumented with approximately 8% of children in K-12th grade in 2016 residing in a mixed-status household with at least one undocumented parent (Passel and Cohen 2018). Growing up in a mixed-status household can have negative implications for the wellbeing of children and their access to educational opportunities (Castañeda 2019, Enriquez 2015). Therefore, results from the ECLS-K:2011 may be skewed given the overrepresentation of Mexican children of immigrant parents – however they can also reflect a population disproportionally vulnerable to parental separation (Gulbas et al. 2016, Hagan, Eschbach and Rodriguez 2008) and with a larger network of extended relatives in the United States (Jiménez 2008). Both are factors which may be linked with single-parenthood and greater membership in extended households.

However, it is difficult to represent heterogeneity among Latina/o ethnic groups given the relatively small sample sizes of children by ethnic groups. This is a key limitation of even

nationally representative datasets (Raleigh and Kao 2010), especially when considering children who belong to a single-parent household or to different types of extended households. Subgroups for these combinations can be too small to use in logistic or regression models. Yet, we can gain theoretical leverage by knowing more about the relationship between family household composition and academic performance when accounting for a child's race/ethnicity, immigrant generation, and additional factors that may be associated with academic performance.

Family Household Composition

Children Living with a Single Parent

A range of factors contribute to children living with a single parent at higher rates than in earlier periods. For instance, increases in cohabitation over marriage have resulted in partnerships with a higher likelihood of dissolving compared to marriages, resulting in a greater proportion of children residing with one parent (Amato 2010). Partners who are married are more likely to remain together since ties in these unions are more difficult to sever (Brown, Van Hook and Glick 2008, Brown, Manning and Payne 2017, Hummer and Hamilton 2010). Similarly, delays in marriage also contribute to children living with cohabiting parents for longer periods, placing children at a higher risk of experiencing parental separation (Osborne and Mclanahan 2007). Additional pathways include birth into a single-parent household, separation through a parent's divorce, or the incarceration of a parent (Amato 2010, Amato, Patterson and Beattie 2015, Mitchell et al. 2015). Overall, shifts in cohabitation, marriage, and external factors have contributed to a greater number of children living in single-parent households.

Children Living with Extended Relatives

A recent rise in the number of extended households is primarily driven by an increase in the number of children living with a grandparent (Dunifon, Ziol-Guest and Kopko 2014), with

9.8% of children living in a vertically extended household, representing a 4% growth from 1996 to 2016 (Pilkauskas and Cross 2018). Researchers also point to economic changes and the importance of ties with extended relatives as explanations behind a rise in the number of children living in an extended household (Brown 2004). For instance, the 2008 economic recession was associated with an increase in the number of extended households as parents co-resided with extended relatives to manage costs (Dunifon, Ziol-Guest and Kopko 2014, Keene and Batson 2010). Similarly, the high cost of housing in some regions in the United States have driven an increase in parents living with extended relatives to mitigate costs (Mutchler and Baker 2009).

The importance of ties with extended relatives for care, discipline, and financial support is another explanation behind the rise of children living in extended households (Augustine and Raley 2013, Dunifon, Ziol-Guest and Kopko 2014, Messing 2006). Parents may ask a grandparent to co-reside to provide childcare (Goodman and Silverstein 2006). Further, grandparents can play a key role in children's cognitive development if they represent positive attachment figures (Sun and Li 2013). However, little work has explored whether living with horizontal or both vertical and horizontal of relatives is preceded by similar needs. Therefore, living with a horizontal relative may be out of structural constraints, reciprocity, or a combination that drive parents and relatives to form extended households.

Family Household Composition and Children's Academic Performance

Resource deprivation theories provide an explanation behind why living with a single parent or with extended relatives can be negatively associated with children's academic performance (Leach 2012, McLanahan, Tach and Schneider 2013, Wagmiller et al. 2010). Children in single-parent families generally have access to fewer resources with only one parent in the home to economically contribute to the household (Amato, Patterson and Beattie 2015).

As a result, they have less access to material resources that may translate to educational gains such as books in the home, a computer, or access to extracurricular activities (Brand and Thomas 2014). Children in single-parent households may live in homes with less physical space, experience more residential moves, live in neighborhoods with less access to activities, or attend lower quality schools (Amato and Patterson 2017, Elliott et al. 2017, Fowler, Henry and Marcal 2015, Riina, Lippert and Brooks-Gunn 2016). In all, living with a single parent is tied to children's lower access to material resources which may limit their educational performance in comparison to children living with two parents.

Resources deprivation theories also provide an explanation behind why living with extended relatives may be negatively associated with children's academic performance, though less research has explored the consequences of children living with different types of extended relatives. Children living with extended relatives may be in disadvantaged positions with parents who are supporting extended relatives in financially constrained positions, which may imply that these children have fewer access to material resources (Pilkauskas 2014, Reyes 2018). For instance, living with a grandparent can sometimes result in no disadvantage compared to children living in a non-extended household (Dunifon 2013). Yet, we know much less about the educational consequences of children who live with a horizontal relative or with both vertical and horizontal relatives. The implications of these households may differ if horizontal relatives have distinct relationships with children compared to grandparents.

Instability-stress theories suggest that household disruptions, such as parent, sibling, or extended family household entities or exits, negatively impact children's academic outcomes (Sun and Li 2011). For instance, children who remain in a stable single-parent household may be better off than children who being schooling in a two-parent household and experience one or

more transitions (Fomby and Cherlin 2016). However, children who experience instability may improve academically if a second parent joins the household and they have more access to material resources (Wagmiller et al. 2010). Yet, children may be more likely to have a strained relationship with their resident parent since there is no second parent to mediate conflict which can negatively shape their wellbeing and academic performance (Ackerman et al. 1999, McCoy and Cybele Raver 2014). Therefore, household disruptions involving a parent tend to have a negative impact on children's academic performance but can also have positive implications if they result in a nurturing environment or increase the availability of material resources.

Household disruptions involving extended relatives can also have negative implications for children's academic performance (Mollborn, Fomby and Dennis 2012). For instance, a child may lose a connection to a relative who exits the home if they provided daily care and emotional support, negatively shaping their academic performance (Sun and Li 2013). Similarly, a disruption from an extended household might involve a residential move or an adjustment period with negative implications for a child's academic performance, particularly if a parent and their child reside at a grandparent's home (Adam 2004). Disruptions involving extended relatives may also have material consequences if a child loses access to resources that helped them perform well academically (Dunifon and Bajracharya 2012, Mollborn, Fomby and Dennis 2012). Though disruptions involving extended relatives may not be as impactful as parent disruptions, they may still have an impact on children's academic performance and are worth considering.

Latina/o Children of Immigrants and Family Household Composition

Prior work has analyzed the family household composition of Latina/os and found differences between children of immigrant parents and children of native-born parents, with children of immigrant parents belonging to single-parent households at lower rates and extended

households at higher rates (Cross 2018, Landale and Oropesa 2007, Landale, Thomas and Van Hook 2011, Perkins 2019, Reyes 2018). Higher marriage rates among immigrant parents may be a key factor reducing the likelihood of children experiencing single-parenthood (Brown, Van Hook and Glick 2008). Dual frames of reference provide an additional explanation, marriage rates in Latin American countries are typically higher than in the United States - while overall children belong to more two-parent households than single-parent households in countries like Mexico (Landale, Oropesa and Noah 2014). Yet, Latina/o children of immigrant parents belong to households with lower socioeconomic status and have parents with lower educational attainment and lower earnings (Crosnoe and Turley 2011), all factor which typically increase the likelihood that a child will experience parental separation (Amato and Patterson 2017).

Explanations behind a higher number of Latina/o children of immigrant parents living in extended households may rest on immigrant adults relying on familial networks prior to migrating to secure housing and precede the formation of horizontally extended households (Kamo 2000, Landale and Oropesa 2007). Economic needs may also drive immigrant relatives to co-reside, particularly in locations with high housing costs (Amorim, Dunifon and Pilkauskas 2017, Angel and Tienda 1982, Kamo 2000). This may be a key explanation since members in extended households may enact reciprocal relationships that coincide with sharing a household (Reyes 2018). Further, family reunification may be tied to the formation of vertically extended households if a grandparent from the home country migrates through processes with a naturalized parent (Gubernskaya and Tang 2017). However, relatively few studies have explored variations in the association between the family household composition of Latina/o children of immigrant parents compared to White children of native-born parents.

Factors differentiating Latina/o immigrant family household composition also rest on cultural preferences that may prevent children from living in a single-parent household and may drive parents to co-reside with extended relatives (Angel and Tienda 1982, Mendoza et al. 2017). Familism claims are based on the idea that immigrant adults prefer close family ties over individualism (Zeiders et al. 2016), therefore they tend to remain married (Brown, Van Hook and Glick 2008) while simultaneously relying on extended relatives for support at higher rates than native-born adults (Fuller-Thomson and Minkler 2007). Yet, children of immigrant parents do reside in single-parent households and scholars have found that extended households may consist of adult immigrants in financially constrained positions, unable to provide assistance (Menjívar 2000, Reyes 2018). Familism can offer a partial explanation but does not fully capture a range of reasons associated with children living in single-parent or extended households.

Research on the consequences of family household composition and household disruptions has focused on Latina/o families in transnational contexts (Enchautegui and Menjívar 2015, Landale, Thomas and Van Hook 2011) while uncovering their role on the academic performance of children (Gindling and Poggio 2012). For instance, Dreby (2012) analyzed the experiences of Latino families who were no longer intact with a parent in the United States and a child in the home country and found that children experience adverse effects in school following disruptions. Similarly, Abrego (2014) argues that "family separation has life-altering repercussions for countless Latino immigrant families" for parents who immigrate to the United States while their children remain in the home country, often in the care of extended relatives. Yet, we know little of family dynamics related to household composition and disruptions post migration, including for reasons that may not be tied to immigration laws and policies.

A shift to the study of children of immigrants who experience family transitions while a parent and child are in the United States may reveal parallel consequences. Latina/o children of immigrants occupy unique positions compared to their native-born peers which may shift how household composition and transitions shape their academic performance. For instance, Latina/o children of immigrants on average belong to lower socioeconomic households compared to native-born children (Lee and Kao 2009, Suárez-Orozco, Rhodes and Milburn 2009). Further, Latina/o children of immigrants who experience single-parenthood also tend to belong to household with lower resources compared to Latina/o native-born children or White native-born children (Karberg et al. 2017). Therefore, Latina/o children of immigrants may be in precarious situations compared to native-born children. Living with an extended relative may offer negative or positive benefits may depend on a child's race/ethnicity, immigrant generation, and socioeconomic status (Kang and Cohen 2017, Klocker, Gibson and Borger 2012, Mollborn, Fomby and Dennis 2012).

Overview of Methodology

I rely on data from the Early Childhood Longitudinal Study, 2011 cohort (ECLS-K:2011) (Tourangeau et al. 2015). The ECLS-K:2011 is well suited for analyzing family household compositions, household disruptions, and children's long-term academic performance. The ECLS-K:2011 relies on a stratified random sample, spanning kindergarten through fifth grade with children enrolled in over one thousand private or public schools across the United States. Data collection was accomplished in the Spring of 2016, however only the kindergarten through fourth grade public data was available as of this writing. A substantive number of cases of children of immigrants are included in the same. Children of immigrant parents in the ECLS-

K:2011 are either 2nd generation, born in the United States to at least one immigrant parent, or 1.5th generation, having arrived prior to beginning kindergarten.

Information about each household member was collected in all waves of the ECLS-K:2011, including the exits or entries of any person from the household. This allowed me to capture the number of parents a child lives with and the types of extended relatives in the home, if any, for each grade. The ECLS-K:2011 also includes academic measures suitable for exploring the association between family household composition, household disruptions, and academic performance. Primary measures of academic performance are continuous reading and mathematics Item Response Theory (IRT) scores collected through child assessments in each wave of the ECLS-K:2011. IRT scores are useful in measuring the academic performance of students since they take into account a child's ability with a series of questions that differ in difficulty and facilitate comparisons across different time points. IRT scores provide a standard way of comparing the academic performance between immigrant and non-immigrant groups while controlling for factors that are either time-independent or contextual.

Outline of Dissertation

Living in a single-parent or extended household or experiencing household disruptions can place children at a disadvantage in academic performance. Latina/o children of immigrants may experience distinct patterns of household composition and household disruptions which may in turn have implications for their academic performance compared to native-born children. I ask research questions that assess the relationship between household composition and household disruption on children's short and long-term academic performance varies on their race/ethnicity and immigrant generation. In Chapter 2, I analyzed children's household composition and how the likelihood of a child living with a single parent or different types of extended relatives differs

by race/ethnicity and immigrant generation using logistic regression models. This chapter provided a foundation to understand how the household composition of Latina/o children of immigrants differs from Latina/o native-born children and White native-born children. I then analyzed the association between household composition and academic performance during kindergarten in Chapter 3 using multivariate regression models. Lastly, in Chapter 4, I analyzed the association between household disruptions occurring from kindergarten through fourth grade on children's academic performance in fourth grade.

Chapter 2

Latina/o Children of Immigrant Parents Family Household Composition in Early Childhood: Single-Parent and Extended Family Household Membership

Children in the United States are more likely than ever to live with a single parent (Sun and Li 2011) and are increasingly living with extended relatives (Deleire and Kalil 2002, Dunifon, Ziol-Guest and Kopko 2014).[1] Analyzing family household composition involves considering the number of parents and the types of extended relatives in a household, defined as vertically extended for households with one or more grandparent and horizontally extended for households with aunts, uncles, and other types of relatives (Mollborn, Fomby and Dennis 2012). Family household composition is consequential for a range of outcomes and the reproduction of inequality, including children's cognitive development, academic performance, and overall wellbeing across the life course (Amato and Patterson 2017, Gindling and Poggio 2012, McLanahan and Percheski 2008). Previous studies include analyses of Latina/o household composition (Foster and Kalil 2007, Landale, Thomas and Van Hook 2011). However, relatively few contemporary studies focus on the family household composition of Latina/o children of immigrant parents and correlates associated with their membership in a single-parent or extended households.

Family household composition is important since the number of parents in the home and the types of extended relatives is consequential for children's wellbeing and outcomes (Dunifon, Ziol-Guest and Kopko 2014, Foster and Kalil 2007). For instance, children who live with a single parent are typically academically disadvantaged (McLanahan and Percheski 2008). Further, negative associations exist when children live with extended relatives, depending on the outcome and the type of extended relative in the home (Deleire and Kalil 2002, Dunifon, Ziol-

Guest and Kopko 2014). Therefore, understanding how family household composition differs can better inform studies that explore their consequences for children's outcomes.

Explanations behind Latina/o family household composition include structural and cultural explanations. For instance, scholars have relied on familism, defined as a preference for maintaining close ties with extended relatives, as an explanation behind a higher prevalence of two-parent and extended households among immigrant families (Angel and Tienda 1982, Mendoza et al. 2017, Pilkauskas and Cross 2018). In contrast, scholars have also explored structural explanations, such as immigrant networks and socioeconomic need, which may function as drivers in the formation of extended households (Kamo 2000, Pilkauskas and Michelmore 2019, Pilkauskas and Cross 2018). Yet, studies on either camp often fail to distinguish between children across immigrant generations or account for what contributes to differences by children who live with a single or two parents, different types of extended households, or the link between single-parenthood and extended household membership.

I fill a gap in analyzing what accounts for differences in family household composition by analyzing the nationally representative Early Childhood Longitudinal Study, 2011 cohort (ECLS-K:2011) including children in kindergarten in the 2010-2011 academic year (Tourangeau et al. 2015) to answer: 1) How does family household composition – children's single-parent and extended household membership – differ by race/ethnicity and immigrant generation between Latina/o children of immigrant parents, Latina/o children of native-born parents, White children of immigrant parents, and White children of native-born parents? 2) How does household socioeconomic status and the interaction between race/ethnicity, immigrant generation, and socioeconomic status shape family household composition? I contribute to understanding factors

shaping Latina/o children of immigrant parents household composition in single-parent, vertical, horizontal, and a combination of vertical and horizontal households.

Explanations for Differing Family Household Composition

Research on Latino family household composition tends to focus on familism (Haxton and Harknett 2009, Mendoza et al. 2017), missing how structural factors shape family household composition. For instance, researchers establish common two-parent or extended households because of familism, defined as a preference for maintaining intact families and living with extended relatives (Fuller-Thomson and Minkler 2007, Mendoza et al. 2017). Familism explanations are limiting since they lack structural explanations (Landale and Oropesa 2007) and additional social locations, such as immigrant generation, are overlooked, resulting in narrow or partial explanations.

Exploring a range of social locations, including overlapping social locations, can provide nuanced explanations behind family household composition. For instance, socioeconomic status can shape whether extended relatives reside (Pilkauskas 2012). Latina/o children of native-born parents belong to households in precarious economic situations compared to White children of native-born parents and tend to belong to extended households at higher rates (Cross 2018). Yet, Latina/o children of immigrant parents, on average, belong to households with lower socioeconomic status compared to Latina/o children of native-born parents or White children of native-born parents (Crosnoe and Ansari 2016).

Membership in Single-Parent Households

Social locations shape the likelihood of a child living with a single parent (McLanahan and Percheski 2008), however research has focused on the children of native-born parents. For instance, parents with higher educational attainment and who work in better paying occupations

are less likely to separate than parents with lower attainment and lower paying occupations (Amato 2010). Latina/o children of native-born parents have parents who are disadvantaged in both areas compared to White children of native-born parents.

Researchers point to an immigrant advantage as a factor mediating membership in single-parent households for Latina/o children of immigrant parents (Brown, Van Hook and Glick 2008, Raley, Sweeney and Wondra 2015). Latina/o immigrant parents are married at higher rates (Brown, Van Hook and Glick 2008) and separation is generally less prevalent in home countries compared to the United States (Landale, Oropesa and Noah 2014). Yet, Landale, Thomas and Van Hook (2011) found that a substantive 24% of Latina/o children of immigrant parents belong to a single-parent household in the United States compared to 32.3% of Latina/o children of native-born parents and 19% of White children of native-born parents. However, these analyses do not explore how a range of social locations shapes the likelihood of a child living with a single parent or focus on young children.

Membership in Vertically Extended Households

Researchers note demographic changes, including declining birthrates, have increased the likelihood of a child living with a grandparent (Dunifon, Ziol-Guest and Kopko 2014). Further, ties with grandparents are increasingly valued, incentivizing parents to co-reside with a child's grandparents (Deleire and Kalil 2002). Similarly, changes in the economy have added pressure for parents to co-reside with a child's grandparent to mediate housing costs (Keene and Batson 2010).

However, social locations may explain differing rates of living with grandparents. For instance, immigrant generation and race/ethnicity may shape the likelihood of a child living with a grandparent. Hernandez (2004) analyzed census data from the year 2000 for children between

birth and age 17 and found a greater proportion of children of immigrant parents with a grandparent and children of color lived with grandparents at higher rates than White children. Yet, Landale, Thomas and Van Hook (2011) analyzed the 2005-2009 Current Population Survey, for children between birth and age 17, and found 8.3% of Latina/o children of immigrant parents lived with a grandparent compared to 14% of Latina/o children of native-born parents and 5.9% of White children of native-born parents. Differences behind the likelihood of living with a grandparent may be based on a range of factors, obscured when only demographic differences are analyzed.

Membership in Horizontally Extended Households

Analyzing vertical and horizontal households separately is important since the likelihood of a child living with a grandparent versus a horizontal relative may be shaped differently. For instance, children living with grandparents may be more common since this represents a conventional household arrangement and ties with grandparents are often reciprocal and valued (Dunifon, Ziol-Guest and Kopko 2014). Horizontal relatives might not contribute similarly, but may be more likely to contribute financially (Reyes 2018). Therefore, social locations may operate differently in shaping the likelihood of a child living with a vertical relative over a horizontal relative.

Research on horizontally extended households has highlighted immigrant generation as a social location (Menjívar 2000, Van Hook and Glick 2007). Immigrants are a selective group and people with existing family networks in the United States are more likely to immigrate (Menjívar 2000, Van Hook and Glick 2007). Landale, Thomas and Van Hook (2011) analyzed the 2005-2009 Current Population Survey, including children between birth and age 17, and found 23% of Latina/o children of immigrant parents lived with a horizontal relative compared to 14.5% of

Latina/o children of native-born parents and 12.2% of White children of native-born parents. As such, race/ethnicity may also be a social location shaping the likelihood of a child living with horizontal relatives.

Membership in Mixed Extended Households

We know little about the likelihood of children living with both vertical and horizontal relatives; however, race/ethnicity, immigrant generation, and socioeconomic status may be relevant social locations. For instance, Reyes (2018) finds typically unidirectional economic support in Latino extended households; parents tend to economically support extended relatives. Therefore, higher socioeconomic status may be associated with parents and extended relatives who can afford housing. Altogether, race/ethnicity and immigrant generation, alongside socioeconomic status, may shape the likelihood of a child living with both vertical and horizontal relatives.

HYPOTHESES

Prior research has not considered how a range of social locations shape the family household composition of Latina/o children of immigrant parents. When Latina/o children of immigrant parents are included and compared (Hernandez 2004, Landale, Thomas and Van Hook 2011), demographic differences are presented without considering how a range of social locations shape a child's likelihood of living with a single parent or living with different types of extended relatives. I hypothesize that social locations, particularly race/ethnicity and immigrant generation, in conjunction with socioeconomic status, including the interaction between race/ethnicity and socioeconomic status, are associated with differing family household composition:

1. Latina/o children of immigrant parents will be less likely to live with a single parent compared to Latina/o children of native-born parents and White children of native-born parents. Latina/o children of native-born parents will be more likely to live with a single parent compared to White children of native-born parents.

2a. Latina/o children of immigrant parents will be less likely to live with vertical relatives compared to Latina/o children of native-born parents and White children of native-born parents. Latina/o children of native-born parents will be more likely to live with vertical relatives compared to White children of native-born parents.

2b. Latina/o children of immigrant parents will be more likely to live with horizontal relatives compared to Latina/o children of native-born parents and White children of native-born parents. Latina/o children of native-born parents will be more likely to live with horizontal relatives compared to White children of native-born parents.

2c. Latina/o children of immigrant parents will be more likely to live with both vertical and horizontal relatives compared to White children of native-born parents. Latina/o native-born children will be more likely to live with both vertical and horizontal relatives compared to Latina/o children of immigrant parents and White children of native-born parents.

3. Children who belong to households with lower socioeconomic status will be more likely to live with a single parent and more likely to live with all types of extended relatives.

METHODS

The ECLS-K:2011 is a National Center for Education Statistics (NCES) nationally representative random sample of children enrolled in more than one thousand schools across the

United States beginning in kindergarten over the 2010-2011 academic year and ending in 5th grade (Tourangeau et al. 2015). The ECSL-K:2011 is ideal since it includes a substantive number of Latina/o children of immigrant parents and information on all household members. The full sample includes 18,170 children. After restricting analyses to Latina/o or White children, the sample size became 13,080, excluding 50 children whose race/ethnicity was undetermined. I dropped 3,051 cases where information on parents in the household was missing, 50 cases where the types of parents in the household was not ascertained, and 291 cases where one or both parents were identified as "other guardians," including grandparents. I utilized a sample size of n = 9,733.

I identified Latina/o children and White children in immigrant families with the nativity of parent(s) in the home using fall and spring of kindergarten measures. I used a parent nativity variable and a child's race/ethnicity to create four groupings: Latina/o children of immigrant parents, Latina/o children of native-born parents, White children of immigrant parents, and White children of native-born parents. These groupings do not include children who are multiracial. I combined 1.5th generation and 2nd generation children since both are socialized in similar contexts at this age (Portes and Rumbaut 2014). Cases for Latina/o children of native-born parents is n = 1,518, n = 1,605 for Latina/o children of immigrant parents, n = 6,091 for White children of native-born parents, and n = 519 for White children of immigrant parents.

Living with a Single Parent

I derived single parenthood measures from household rosters including all members living in the home and NCES designated parent roles (Tourangeau et al. 2015). Although previous research has considered cohabiting or stepparent families (Brown, Van Hook and Glick 2008), there were too few Latina/o immigrant cohabiting or stepparent families in the data to

separately include in analyses. Therefore, I consider all cohabiting or step-parent families as two-parent families. Two-parent families are the reference group.

Living with Extended Relatives

I captured membership in extended households using four types: any extended relative, vertical (one or more grandparent), horizontal (aunt(s), uncle(s), or other extended relatives), and mixed (both vertical and horizontal members). Each person in a household is assigned a unique roster number. Adult survey respondents identified the relationship to the focal child for all enumerated people. If at least one person is classified as a vertical member, the household is a vertically extended household. Similarly, with at least one horizontal member, the household is considered horizontally extended. Households with both a horizontal and vertical relative are mixed. Given my scope, I considered children who lived with other adult non-relatives to live in non-extended households. Children not living in an extended household are the reference group.

Control Variables

I rely on an NCES composite measure of socioeconomic status in the fall and spring of kindergarten capturing: parent(s) educational attainment, parent(s) occupational prestige score, and the total household income (Tourangeau et al. 2015). SES ranged from -2.88 to 2.99 with higher positive values representing higher SES. This measure relies on five components (four for a possible two parents and one for the total household income) and can be calculated with missing components. In single-parent households, SES is an average score for available components. However, I could not construct income contributions to test if parent's or an extended relative's income are tied to family household composition.

I use a continuous variable to capture the number of siblings at home in the spring of kindergarten. Further, I include the focal child's gender and age in the spring of kindergarten. I

include the age of the main resident parent identified in the home during the spring of kindergarten since parent's age may be associated with single parenthood or co-residence with extended relatives. Lastly, I measure a child's school location in the spring of kindergarten as a proxy since locations may be tied to whether a child lives with a single parent or extended relatives. This includes four locations: city, suburban, rural, and town. Cities are the reference category.

Analytic Strategy

To analyze the likelihood of a child living with a single parent, I utilized logistic regression with two-parent families as the reference category and White children of native-born parents as the reference group. I analyzed the likelihood of a child living with extended relatives with four logistic regression models for each type of extended relative (any, vertical, horizontal, and mixed). I used Stata 14's multiple imputation commands to impute missing data and preserve cases: 0.3% of cases were missing data for parent's age, 2.7% for a child's age at survey assessment, and 2.1% of a child's school location. Ninety-six percent of all cases had complete data for included variables; results with or without imputed data did not differ substantively. Model 1 includes explanatory variables to capture baseline differences. I added controls to Model 2. In Model 3, I adjusted for membership in an extended household as a predictor for living with a single parent and membership in a single-parent household as a predictor for living with different types of extended relatives. Model 4 includes SES interaction terms. I used survey weights to maintain representativeness for children enrolled in kindergarten over 2010-2011.

RESULTS

Weighted descriptive statistics in Table 2.1 indicate that approximately 16% of children belong to a single-parent household. However, 21% of Latina/o children of native-born parents

belong to a single-parent household, a greater proportion ($p < .001$) than 14% of White children of native-born parents. Compared to White children of native-born parents, Latina/o children of immigrant parents do not differ in their membership in a single-parent household and 22% belong to a single-parent household. A lower proportion ($p < .001$) of White children of immigrant parents, only 4%, belong to a single-parent household compared to White children of native-born parents.

(Table 2.1 about here.)

Living with an extended relative is more common among Latina/o children of immigrant parents with 27% living in an extended household ($p < .001$) and Latina/o children of native-born parents with 23% living in an extended household ($p < .001$) compared to only 10% of White children of native-born parents. In contrast, 8% of White children of immigrant parents belong to an extended household and do not differ compared to White children of native-born parents. Compared to 6% of White native-born children, 11% of Latina/o children of native-born parents belong to vertically extended households ($p < .001$). In contrast, 6% of Latina/o children of immigrant parents belong to a vertically extended household, a non-significant difference. Further, 6% of Latina/o children of native-born parents belong to a horizontally extended household, a higher proportion than 3% of White children of native-born parents ($p < .001$). Similarly, 16% of Latina/o children of immigrant parents belong to a horizontally extended household, also a higher proportion than White children of native-born parents ($p < .001$). Lastly, Latina/o children of native-born parents and Latina/o children of immigrant parents belong to a greater portion of mixed extended households, 7% and 5% respectively, compared to 2% of White children of native-born parents ($p < .001$).

Latina/o children of native-born parents belong to households with lower SES ($p < .001$) compared to White children of native-born parents. Latina/o children of immigrant parents belong to households with a lower ($p < .001$) SES compared to White children of native-born parents and their average SES is lower than Latina/o children of native-born parents. In contrast, White children of immigrant parents belong to households with an average SES higher than for White children of native-born parents ($p < .001$). Latina/o children are on average younger during survey assessment compared to White children of native-born parents ($p < .001$). Latina/o children of native-born parents and Latina/o children of immigrant parents have parents who are younger ($p < .001$) compared to White children of native-born parents. Latina/o children of immigrant parents have more siblings in the home compared to White children of native-born parents ($p < .001$) while Latina/o children of native-born parents and White children of immigrant parents are on par with White children of native-born parents. For all groups, most children attend school in a city or suburban setting. However, Latina/o children of native-born parents and Latina/o children of immigrant parents are more likely to attend schools in cities compared to White children of native-born parents ($p < .001$).

Membership in a Single-Parent Household

Table 2.2 presents coefficients and odds ratios from weighted logistic regression models predicting children's membership in a single-parent household. White children of native-born parents are the reference group.

(Table 2.2 about here.)

Results from Model 1 indicate that Latina/o children of native-born parents are 1.62 times more likely ($p < .001$) to belong to a single-parent household than White children of native-born parents. Covariates in Model 2 reduced the magnitude of this odds ratio to nearly 1 compared to

White children of native-born parents, indicating a non-significant difference. In Model 1, Latina/o children of immigrant parents are 1.65 times more likely ($p < .001$) to belong to a single-parent household compared to White children of native-born parents. Yet, in Model 2, Latina/o children of immigrant parents are .52 times less likely ($p < .001$) to belong to a single-parent household compared to White children of native-born parents. In Model 1, White children of immigrant parents are .23 times less likely ($p < .001$) to belong to a single-parent household compared to White children of native-born parents. This holds with covariates in Model 2.

Model 3 results suggest that race/ethnicity and immigrant generation are factors associated with the likelihood of a child living with a single parent. I assess differences between groups with adjusted Wald tests. Latina/o children of immigrant parents differ in their likelihood of belonging to a single-parent household compared to Latina/o children of native-born parents ($p < .001$). Latina/o children of immigrant parents are .47 times less likely to live with a single parent ($p < .001$) than White children of native-born parents while White children of immigrant parents are .24 times less likely ($p < .001$). However, the difference in membership in a single-parent household is non-significant when comparing Latina/o children of immigrant parents to White children of immigrant parents. Latina/o children of native-born parents are .91 times less likely to belong to a single-parent household compared to White children of native-born parents, however the difference is non-significant.

In Model 3, socioeconomic status is associated with membership in a single-parent household, children are .38 times less likely to belong in a single-parent household ($p < .001$) for each unit increase in SES. I tested an interaction between SES and each group in Model 4. However, each interaction term was statistically non-significant and group differences between Model 3 and Model 4 were consistent.

Model 3 also adjusts for children's membership in any extended household. Children who reside in an extended household are 3.08 times more likely ($p < .001$) to belong to a single-parent household. For control variables, children older in age are 1.02 times more likely ($p < .05$) to belong to a single-parent household for each month increase in age. Children with siblings are .68 times less likely ($p < .001$) to belong to a single-parent household. Lastly, children who attend school in a rural setting are .70 times less likely ($p < .001$) to belong to a single-parent household compared to children attending school in cities.

Membership in Extended Households

Table 2.3 presents coefficients and odds ratios from weighted logistic regression results for extended household types. Differences between children's membership in extended households emerge when predicting membership in any, vertical, horizontal, or mixed extended households. White children of immigrant parents do not differ compared to White children of native-born parents. Therefore, I focus on comparisons between Latina/o children of immigrant parents, Latina children of native-born parents, and White children of native-born parents.

(Table 2.3 about here.)

Any Extended Household

Results from Model 1 indicate that Latina/o children of native-born parents are 2.64 times more likely ($p < .001$) to belong to any extended household than White children of native-born parents. However, with covariates in Model 2 the magnitude is reduced, Latina/o children of native-born parents are 1.84 times more likely ($p < .001$). Similarly, Model 1 indicates that Latina/o children of immigrant parents are 3.22 times more likely ($p < .001$) to belong to any extended household. In Model 2 the magnitude is diminished, Latina/o children of immigrant parents are 1.48 times more likely ($p < .01$) to belong to any extended household compared to

White children of native-born parents. There are no significant differences between White children of immigrant parents and White children of native-born parents.

Results from Model 4 indicate that socioeconomic status is associated with a child's membership in any extended household. I assess differences between groups with adjusted Wald tests. Children in households with higher SES are .46 times less likely ($p < .001$) to belong to any extended household. Latina/o children of native-born parents are 2.27 times more likely ($p < .001$) to belong to any extended household compared to White children of native-born parents and 1.75 times more likely ($p < .001$) with the SES interaction term. Similarly, Latina/o children of immigrant parents are 2.97 times more likely ($p < .001$) to belong to any extended household compared to White children of native-born parents and 2.05 times more likely ($p < .001$) with the SES interaction term. Taking into account SES interactions amplifies differences in Latina/o children of native-born parents and Latina/o children of immigrant parents likelihood of belonging to any extended household.

Model 3 indicates that children living with a single parent are 3.12 times more likely ($p < .001$) to belong to any extended household. Therefore, experiencing single parenthood may be a predictor for a child's likelihood of residing in an extended household, depending on the types of extended relatives in the home. For control variables, children with an older parent are .97 times less likely to belong to a single-parent household ($p < .001$) for each year increase in a parent's age. Children with siblings are .76 times less likely ($p < .001$) to belong to a single-parent household for each additional sibling. Lastly, children who attend school in a suburban setting are 1.24 times more likely ($p < .05$) to belong to a single-parent household than children who attend school in a city setting.

Vertically Extended Household

As shown in Table 2.4, Model 1 indicates that Latina/o children of native-born parents are 1.95 times more likely ($p < .001$) to belong to a vertically extended household than White children of native-born parents children. The magnitude of this odds ratio is reduced to 1.40 ($p < .05$) from Model 1 to Model 2 with added covariates. In Model 1, Latina/o children of immigrant parents are more likely to belong to a vertically extended household compared to White children of native-born parents, however this is statistically non-significant. Yet, this is reversed with covariates in Model 2 since Latina/o children of immigrant parents are .57 times less likely ($p < .01$) to belong to a vertically extended household compared to White children of native-born parents.

(Table 2.4 about here.)

Results from Model 3 and Model 4 indicate that socioeconomic status is associated with a child's membership in vertically extended households, Model 4 includes SES interaction terms. I assess differences between groups with adjusted Wald tests. Model 4 includes an interaction between SES and each child grouping, children with higher SES are .50 times less likely ($p < .001$) to belong to a vertically extended household. Latina/o children of native-born parents are 1.78 times more likely ($p < .001$) to belong to a vertically extended household than White children of native-born parents and 2.08 times more likely ($p < .001$) with the SES interaction term. Latina/o children of native-born parents were also more likely to live in a vertically extended household than Latina/o children of immigrant parents. Latina/o children of immigrant parents were .66 times less likely to belong to a vertically extended household compared to White children of native-born parents in Model 3. In Model 4, Latina/o children of immigrant parents are 1.78 times more likely ($p < .01$) to belong to a vertically extended household than

White children of native-born parents and 3.55 times more likely ($p < .001$) with the SES interaction term. In Model 4, Latina/o children of native-born parents do not differ in their likelihood of belonging to a vertically extended household compared to Latina/o children of immigrant parents.

Model 3 indicates that children who live with a single parent are 3.14 times more likely ($p < .001$) to also live with a grandparent. For control variables, for each year in a parent's age, children are .97 times less likely ($p < .001$) to belong in a vertically extended household. Children with siblings are .84 times less likely ($p < .01$) to belong to a vertically extended household. Lastly, children who attend school in a suburban setting are 1.40 times more likely ($p < .01$) to belong to a vertically extended household while children attending school in a town setting are .59 times less likely ($p < .05$) compared to children who attend school in cities.

Horizontally Extended Household

As shown in Table 2.5, Model 1 indicates that Latina/o children of native-born parents are 2.27 times more likely ($p < .001$) to belong to a horizontally extended household than White children of native-born parents. This holds with covariates in Model 2; however, the magnitude is reduced to 1.80 ($p < .01$). Similarly, Model 1 shows that Latina/o children of immigrant parents are 6.83 times more likely ($p < .001$) to belong to a horizontally extended household compared to White children of native-born parents. This holds in Model 2 with covariates, with a reduced magnitude of 3.64 ($p < .001$).

(Table 2.5 about here.)

Overall, Model 3 indicates race/ethnicity and immigrant generation differences in children's likelihood of belonging in a horizontally extended household. I assess differences between groups with adjusted Wald tests. Latina/o children of native-born parents differ in their

likelihood of belonging to a horizontally extended household compared to Latina/o children of immigrant parents ($p < .001$). Latina/o children of native-born parents are 1.81 times more likely ($p < .001$) to belong to a horizontally extended household than White children of native-born parents while Latina/o children of immigrant parents are 3.80 times more likely ($p < .001$). This suggests racial/ethnic disparities in membership between Latina/o children and White children and immigrant generation differences when comparing Latina/o children of immigrant parents to Latina/o children of native-born parents.

Model 4 includes SES interaction terms. Children in household with higher SES are .50 times less likely ($p < .001$) to belong to a horizontally extended household. However, SES interaction terms are not significant for any group in Model 4. This suggests unique SES interactions in the presence of grandparents.

Model 3 indicates that children who live with a single parent are 1.31 times more likely to belong to a horizontally extended household, however the difference is non-significant compared to children living with two parents. Single parenthood may be more closely associated with children living with grandparents than horizontal relatives like aunts or uncles. Children with siblings are .76 times less likely ($p < .001$) to belong to a horizontally extended household. Unlike for vertically extended households, parent's age and a child's school location are not associated with their likelihood of living with a horizontal relative.

Mixed Extended Households

As shown in Table 2.6, Model 1 indicates that Latina/o children of native-born parents are 3.9 times more likely ($p < .001$) to belong to a mixed extended household compared to White children of native-born parents. This holds in Model 2 with covariates, though the magnitude is reduced to 2.13 times more likely ($p < .001$) compared to White children of native-born parents.

Similarly, Model 1 indicates that Latina/o children of immigrant parents are 2.71 times more likely ($p < .001$) to belong to a mixed extended household compared to White children of native-born parents. However, this is no longer the case with covariates in Model 2 since Latina/o children of immigrant parents are 1.10 times more likely to belong to a mixed extended household compared to White children of native-born parents, but this difference is statistically non-significant.

(Table 2.6 about here.)

Results from Model 3 and Model 4 indicate that socioeconomic status is associated with a child's membership in mixed extended households. I assess differences between groups with adjusted Wald tests. In Model 4, children in households with higher SES are .50 times less likely ($p < .001$) to belong to a mixed extended household. Latina/o children of native-born parents are 2.88 times more likely ($p < .001$) to belong to a mixed extended household compared to White children of native-born parents and 1.54 times more likely ($p < .05$) with the SES interaction term. Similarly, Latina/o children of immigrant parents are 3.55 times more likely ($p < .001$) to belong to a mixed extended household and 2.78 times more likely ($p < .001$) with the SES interaction term. Latina/o children of native-born parents are the most likely to live with both vertical and horizontal relatives in Model 3, however in Model 4, Latina/o children of immigrant parents are the most likely. Model 4 reflects a shift in likelihood of who is most likely to live with both vertical and horizontal relatives when comparing race/ethnicity and immigrant generation.

Model 3 indicates that children who live with a single parent are 3.92 times more likely ($p < .001$) to belong to a mixed extended household. For control variables, for each year of a parent's age, children are .89 times less likely ($p < .001$) to belong to a vertically extended

household. Children with siblings are .78 times less likely ($p < .01$) to belong to a mixed extended household. Unlike for vertical-only households, a child's school location is not significantly associated with this household arrangement.

DISCUSSION

Children's membership in single-parent and extended family households is rising across the United States (Dunifon, Ziol-Guest and Kopko 2014, Sun and Li 2011) and family household composition are consequential for children's wellbeing and outcomes (McLanahan and Percheski 2008). However, theoretical explanations of Latino immigrant households have often drawn on familism as a narrow explanation (Fuller-Thomson and Minkler 2007, Haxton and Harknett 2009, Mendoza et al. 2017). I find that race/ethnicity, immigrant generation, and socioeconomic status shape the likelihood of Latina/o children of immigrant parents living with a single parent and extended relatives.

I expected Latina/o children of immigrant parents to be less likely to live with a single parent compared to Latina/o children of native-born parents and White children of native-born parents. Latina/o children of immigrant parents are also less likely to live with a single parent when accounting for socioeconomic status differences compared to White children of native-born parents. However, I found no significant differences between Latina/o children of native-born parents and White children of native-born parents. This was surprising given previous work on the disparities between Latina/o children and White children. A child's nativity may be protective among 1.5th and 2nd generation children of immigrant parents but no longer present among children of native-born parents. Notably, living with a single parent was associated with living in all types of extended households which may suggest that these arrangements are formed out of necessity or mutual support (Amorim, Dunifon and Pilkauskas 2017, Deleire and Kalil

2002). Given an increase in the number of children spending time in a single-parent household, this may be a trend that continues to grow as parents strategically co-reside with grandparents for support or out of economic necessity.

I expected that Latina/o children of immigrant parents would be less likely to live with grandparents in vertically extended households compared to Latina/o children of native-born parents and White children of native-born parents while Latina/o children of native-born parents would be the most likely. I found that Latina/o children of immigrant parents are less likely to live with a grandparent compared to Latina/o children of native-born parents or White children of native-born parents. Further, Latina/o children of native-born parents are indeed more likely to live with a grandparent than Latina/o children of immigrant parents and White children of native-born parents. However, when accounting for SES interactions, Latina/o children of immigrant parents are also more likely to live with a grandparent compared to White children of native-born parents.

I expected that Latina/o children of immigrant parents would be the most likely to live with horizontal relatives while Latina/o children of native-born parents would be more likely than White children of native-born parents. I found that Latina/o children of immigrant parents and Latina/o children of native-born parents have a higher likelihood of living with horizontal relatives compared to White children of native-born parents. However, Latina/o children of native-born parents are also more likely to live with horizontal relatives compared to White children of native-born parents. Unlike living with a grandparent, socioeconomic status interactions were not significant in shaping the likelihood of a child living with a horizontal relative. SES may not be as closely tied to the likelihood of a child living with a horizontal

relative if horizontal relatives can raise the overall household income through individual contributions.

In terms of mixed extended households, I expected that Latina/o children of immigrant parents would be more likely to live with vertical and horizontal relatives compared to White children of native-born parents while Latina/o children of native-born parents would be the most likely to live with both vertical and horizontal relatives. Latina/o children of immigrant parents and Latina/o children of native-born parents are more likely to live with both vertical and horizontal relatives compared to White children of native-born parents, with and without controlling for socioeconomic status interactions. Family household composition studies need to distinguish between different types of extended relatives in the home to capture why living with both vertical and horizontal relatives is more common among Latina/o children of immigrant parents and Latina/o children of native-born parents.

Theoretically conceptualizing how social locations shape children's family household composition provides a lens to explore the role of additional social locations. For instance, Kang and Cohen (2017) find in Los Angeles, the children of undocumented immigrants are more likely to live with a single parent and more likely to live with extended relatives compared to children of documented immigrants and children with native-born parents. Therefore, parental legal status may be a key social location shaping the likelihood of a child living with a single parent and living with extended relatives. Future work should consider how additional social locations shape children's family household composition given their consequential nature.

Table 2.1: Weighted Descriptive Statistics for all Children and by Group (Means and Proportions)

Variable	All Children (N=9733) Mean	SD	White children of native-born parents (n = 6091) Mean	SD	White children of immigrant parents (n = 519) Mean	SD		Latina/o children of native-born parents (n = 1518) Mean	SD		Latina/o children of immigrant parents (n = 1605) Mean	SD	
Single-Parent Household Membership													
Single Parent	16%		14%		4%		***	21%		***	22%		
Extended Household Membership													
Any Extended	14%		10%		8%			23%		***	27%		***
Vertical	6%		6%		6%			11%		***	6%		
Horizontal	5%		3%		1%			6%		***	16%		***
Mixed	3%		2%		1%			7%		***	5%		***
Parent and Child Characteristics													
Resident Parent's Age	34.2	7.29	34.7	6.844	36.6	7	***	32.4	7.834	***	32.9	8.081	***
Gender (Female)	48%		48%		47%			47%			50%		
Child's Age (Months)	73.5	5.37	73.9	5.314	73.0	5.16	***	72.9	5.324	***	72.4	5.389	***
Household Characteristics													
Number of Siblings	1.53	1.25	1.48	1.153	1.40	1.37		1.63	1.421	*	1.76	1.472	***
SES	0.04	1.17	0.28	1.043	0.48	1.13	***	-0.24	1.111	***	-1.03	0.861	***
School Location													
City	27%		19%		33%		***	39%		***	54%		***
Suburb	36%		36%		40%			38%			32%		
Town	12%		15%		11%			8%			5%		
Rural	25%		30%		16%			15%			9%		

*** p < 0.001, ** p < 0.01, * p < 0.05

White children of native-born parents are the reference group.

Table 2.2: Weighted Logistic Regression Model for Children's Membership in a Single-Parent Household in the Spring of Kindergarten (Coefficients and Odds Ratios)

Variable	Model 1	Model 1 - OR	Model 2	Model 2 - OR	Model 3	Model 3 - OR	Model 4	Model 4 - OR
White Native-Born (Reference)								
Latina/o native-born	0.481***	1.618***	0.00778	1.008	-0.0914	0.913		
	(0.0865)	(0.140)	(0.0993)	(0.100)	(0.102)	(0.0929)		
Latina/o children of immigrant(s)	0.499***	1.647***	-0.663***	0.516***	-0.760***	0.468***		
	(0.0889)	(0.146)	(0.116)	(0.0600)	(0.118)	(0.0553)		
White children of immigrant(s)	-1.460***	0.232***	-1.454***	0.234***	-1.420***	0.242***		
	(0.321)	(0.0745)	(0.329)	(0.0769)	(0.334)	(0.0808)		
Parent's Age			0.000342	1.000	0.00607	1.006	0.00659	1.007
			(0.00637)	(0.00637)	(0.00646)	(0.00650)	(0.00648)	(0.00652)
Gender			-0.00480	0.995	-0.0191	0.981	-0.0186	0.982
			(0.0713)	(0.0709)	(0.0729)	(0.0715)	(0.0729)	(0.0716)
Age at assessment			0.0182*	1.018*	0.0204*	1.021*	0.0203*	1.021*
			(0.00847)	(0.00863)	(0.00874)	(0.00892)	(0.00875)	(0.00893)
Number of siblings in the home			-0.448***	0.639***	-0.390***	0.677***	-0.389***	0.678***
			(0.0416)	(0.0266)	(0.0415)	(0.0281)	(0.0416)	(0.0282)
SES			-1.055***	0.348***	-0.964***	0.381***	-0.980***	0.375***
			(0.0572)	(0.0199)	(0.0579)	(0.0221)	(0.0692)	(0.0260)
City (Reference)								
Suburb			0.0950	1.100	0.0645	1.067	0.0653	1.067
			(0.0896)	(0.0986)	(0.0922)	(0.0984)	(0.0921)	(0.0983)
Town			-0.301*	0.740*	-0.237	0.789	-0.238	0.788
			(0.145)	(0.108)	(0.148)	(0.117)	(0.149)	(0.117)
Rural			-0.352***	0.703***	-0.359***	0.698***	-0.361***	0.697***
			(0.106)	(0.0747)	(0.109)	(0.0759)	(0.109)	(0.0762)
Extended Household Membership					1.126***	3.084***	1.122***	3.070***
					(0.0878)	(0.271)	(0.0879)	(0.270)
Latina/o native-born							-0.112	0.894
							(0.122)	(0.109)
Latina/o native-born # SES							-0.0248	0.975
							(0.141)	(0.138)
Latina/o children of immigrant(s)							-0.582**	0.559**
							(0.224)	(0.125)
Latina/o children of immigrant(s) # SES							0.164	1.179
							(0.185)	(0.218)
White children of immigrant(s)							-1.406***	0.245***
							(0.331)	(0.0811)
White children of immigrant(s) # SES							0.142	1.153
							(0.532)	(0.614)
Constant	-1.792***	0.167***	-2.415***	0.0893***	-3.013***	0.0491***	-3.027***	0.0485***
	(0.0433)	(0.00721)	(0.657)	(0.0587)	(0.679)	(0.0334)	(0.680)	(0.0329)
Observations	9733	9733	9733	9733	9733	9733	9733	9733

*** p < 0.001, ** p < 0.01, * p < 0.05
Standard errors in parentheses

Table 2.3: Weighted Logistic Regression Predicting Membership in any Extended Household (Coefficients and Odds Ratios)

Variables	Model 1	Model 1 - OR	Model 2	Model 2 - OR	Model 3	Model 3 - OR	Model 4	Model 4 - OR
White Native-Born (Reference)								
Latina/o native-born	0.970***	2.638***	0.610***	1.841***	0.647***	1.910***		
	(0.0902)	(0.238)	(0.102)	(0.189)	(0.104)	(0.199)		
Latina/o children of immigrant(s)	1.169***	3.220***	0.392**	1.479**	0.572***	1.771***		
	(0.0885)	(0.285)	(0.119)	(0.177)	(0.121)	(0.214)		
White children of immigrant(s)	-0.254	0.776	-0.117	0.889	0.0991	1.104		
	(0.188)	(0.146)	(0.200)	(0.178)	(0.200)	(0.221)		
Parent's Age			-0.0321***	0.968***	-0.0324***	0.968***	-0.0302***	0.970***
			(0.00682)	(0.00660)	(0.00686)	(0.00664)	(0.00678)	(0.00658)
Gender			0.0408	1.042	0.0441	1.045	0.0463	1.047
			(0.0746)	(0.0777)	(0.0762)	(0.0796)	(0.0759)	(0.0795)
Age at assessment			-0.0108	0.989	-0.0144	0.986	-0.0150	0.985
			(0.00892)	(0.00882)	(0.00910)	(0.00897)	(0.00899)	(0.00885)
Number of siblings in the home			-0.346***	0.708***	-0.271***	0.763***	-0.253***	0.777***
			(0.0417)	(0.0295)	(0.0419)	(0.0320)	(0.0417)	(0.0324)
SES			-0.700***	0.497***	-0.514***	0.598***	-0.783***	0.457***
			(0.0548)	(0.0272)	(0.0553)	(0.0331)	(0.0768)	(0.0351)
City (Reference)								
Suburb			0.230*	1.259*	0.217*	1.243*	0.216*	1.241*
			(0.0923)	(0.116)	(0.0951)	(0.118)	(0.0941)	(0.117)
Town			-0.409*	0.664*	-0.348	0.706	-0.398*	0.672*
			(0.173)	(0.115)	(0.178)	(0.126)	(0.178)	(0.120)
Rural			0.00900	1.009	0.0852	1.089	0.0439	1.045
			(0.114)	(0.115)	(0.116)	(0.126)	(0.116)	(0.122)
Living with a single parent					1.137***	3.116***	1.114***	3.048***
					(0.0885)	(0.276)	(0.0884)	(0.269)
Latina/o native-born							0.818***	2.265***
							(0.103)	(0.233)
Latina/o native-born # SES							0.558***	1.746***
							(0.114)	(0.198)
Latina/o children of immigrant(s)							1.088***	2.969***
							(0.148)	(0.441)
Latina/o children of immigrant(s) # SES							0.716***	2.045***
							(0.127)	(0.259)
White children of immigrant(s)							0.0852	1.089
							(0.203)	(0.221)
White children of immigrant(s) # SES							0.508**	1.662**
							(0.178)	(0.296)
Constant	-2.188***	0.112***	0.144	1.154	0.0115	1.012	-0.0581	0.944
	(0.0512)	(0.00574)	(0.679)	(0.784)	(0.689)	(0.697)	(0.682)	(0.643)
Observations	9733	9733	9733	9733	9733	9733	9733	9733

*** p<0.001, ** p<0.01, * p<0.05
Standard errors in parentheses

Table 2.4: Weighted Logistic Regression Predicting Membership in a Vertically Extended Household (Coefficients and Odds Ratios)

Variables	Model 1	Model 1 - OR	Model 2	Model 2 - OR	Model 3	Model 3 - OR	Model 4	Model 4 - OR
White Native-Born (Reference)								
Latina/o native-born	0.667***	1.949***	0.333*	1.395*	0.347*	1.414*		
	(0.122)	(0.238)	(0.140)	(0.196)	(0.142)	(0.200)		
Latina/o children of immigrant(s)	0.107	1.113	-0.563**	0.569**	-0.423*	0.655*		
	(0.143)	(0.159)	(0.192)	(0.109)	(0.192)	(0.126)		
White children of immigrant(s)	0.0420	1.043	0.167	1.182	0.385	1.470		
	(0.222)	(0.231)	(0.228)	(0.269)	(0.229)	(0.336)		
Parent's Age			-0.0284**	0.972**	-0.0280**	0.972**	-0.0256**	0.975**
			(0.00918)	(0.00892)	(0.00906)	(0.00881)	(0.00901)	(0.00878)
Gender			-0.0690	0.933	-0.0686	0.934	-0.0597	0.942
			(0.102)	(0.0951)	(0.103)	(0.0963)	(0.103)	(0.0974)
Age at assessment			-0.0140	0.986	-0.0176	0.983	-0.0187	0.981
			(0.0120)	(0.0118)	(0.0120)	(0.0118)	(0.0119)	(0.0117)
Number of siblings in the home			-0.262***	0.770***	-0.177**	0.838**	-0.154**	0.857**
			(0.0556)	(0.0428)	(0.0551)	(0.0462)	(0.0557)	(0.0477)
SES			-0.557***	0.573***	-0.355***	0.701***	-0.690***	0.502***
			(0.0719)	(0.0412)	(0.0700)	(0.0491)	(0.0907)	(0.0455)
City (Reference)								
Suburb			0.355**	1.426**	0.337*	1.401*	0.339*	1.403*
			(0.131)	(0.188)	(0.134)	(0.187)	(0.133)	(0.187)
Town			-0.577*	0.561*	-0.521*	0.594*	-0.593*	0.553*
			(0.254)	(0.143)	(0.256)	(0.152)	(0.259)	(0.143)
Rural			0.140	1.151	0.215	1.239	0.155	1.167
			(0.160)	(0.184)	(0.162)	(0.201)	(0.164)	(0.191)
Living with a single parent					1.143***	3.135***	1.111***	3.037***
					(0.117)	(0.367)	(0.118)	(0.360)
Latina/o native-born							0.575***	1.777***
							(0.135)	(0.239)
Latina/o native-born # SES							0.731***	2.077***
							(0.141)	(0.292)
Latina/o children of immigrant(s)							0.579**	1.784**
							(0.207)	(0.369)
Latina/o children of immigrant(s) # SES							1.266***	3.545***
							(0.169)	(0.599)
White children of immigrant(s)							0.385	1.469
							(0.235)	(0.345)
White children of immigrant(s) # SES							0.476*	1.610*
							(0.185)	(0.297)
Constant	-2.809***	0.0603***	-0.497	0.608	-0.679	0.507	-0.731	0.481
	(0.0665)	(0.00401)	(0.908)	(0.553)	(0.900)	(0.457)	(0.894)	(0.430)
Observations	9733	9733	9733	9733	9733	9733	9733	9733

*** p<0.001, ** p<0.01, * p<0.05
Standard errors in parentheses

Table 2.5: Weighted Logistic Regression Predicting Membership in a Horizontally Extended Household (Coefficients and Odds Ratios)

Variables	Model 1	Model 1 - OR	Model 2	Model 2 - OR	Model 3	Model 3 - OR	Model 4	Model 4 - OR
White Native-Born (Reference)								
Latina/o native-born	0.819***	2.268***	0.589**	1.803**	0.595***	1.813***		
	(0.167)	(0.378)	(0.180)	(0.325)	(0.180)	(0.327)		
Latina/o children of immigrant(s)	1.921***	6.825***	1.292***	3.638***	1.334***	3.795***		
	(0.131)	(0.894)	(0.176)	(0.639)	(0.178)	(0.677)		
White children of immigrant(s)	-0.587	0.556	-0.514	0.598	-0.472	0.624		
	(0.400)	(0.222)	(0.405)	(0.242)	(0.406)	(0.253)		
Parent's Age			0.0141	1.014	0.0143	1.014	0.0143	1.014
			(0.00983)	(0.00997)	(0.00980)	(0.00994)	(0.00985)	(0.00999)
Gender			0.166	1.180	0.166	1.181	0.164	1.179
			(0.118)	(0.139)	(0.118)	(0.139)	(0.118)	(0.139)
Age at assessment			-0.00495	0.995	-0.00556	0.994	-0.00566	0.994
			(0.0144)	(0.0143)	(0.0143)	(0.0143)	(0.0143)	(0.0142)
Number of siblings in the home			-0.299***	0.742***	-0.280***	0.756***	-0.275***	0.760***
			(0.0660)	(0.0490)	(0.0677)	(0.0512)	(0.0678)	(0.0515)
SES			-0.638***	0.529***	-0.590***	0.554***	-0.691***	0.501***
			(0.0861)	(0.0455)	(0.0917)	(0.0508)	(0.131)	(0.0657)
City (Reference)								
Suburb			0.126	1.134	0.124	1.132	0.124	1.132
			(0.139)	(0.157)	(0.139)	(0.157)	(0.139)	(0.157)
Town			-0.0813	0.922	-0.0614	0.940	-0.0786	0.924
			(0.284)	(0.262)	(0.284)	(0.267)	(0.284)	(0.262)
Rural			0.0879	1.092	0.111	1.117	0.0957	1.100
			(0.182)	(0.199)	(0.184)	(0.205)	(0.184)	(0.202)
Living with a single parent					0.273	1.314	0.268	1.307
					(0.149)	(0.195)	(0.149)	(0.195)
Latina/o native-born							0.721***	2.057***
							(0.185)	(0.382)
Latina/o native-born # SES							0.316	1.371
							(0.185)	(0.254)
Latina/o children of immigrant(s)							1.316***	3.729***
							(0.220)	(0.822)
Latina/o children of immigrant(s) # SES							0.0773	1.080
							(0.182)	(0.197)
White children of immigrant(s)							-0.509	0.601
							(0.422)	(0.253)
White children of immigrant(s) # SES							0.392	1.480
							(0.461)	(0.682)
Constant	-3.608***	0.0271***	-3.432**	0.0323**	-3.480**	0.0308**	-3.487**	0.0306**
	(0.0968)	(0.00262)	(1.091)	(0.0353)	(1.087)	(0.0335)	(1.085)	(0.0332)
Observations	9733	9733	9733	9733	9733	9733	9733	9733

*** p<0.001, ** p<0.01, * p<0.05
Standard errors in parentheses

Table 2.6: Weighted Logistic Regression Predicting Membership in a Mixed Extended Household (Coefficients and Odds Ratios)

Variables	Model 1	Model 1 - OR	Model 2	Model 2 - OR	Model 3	Model 3 - OR	Model 4	Model 4 - OR
White Native-Born (Reference)								
Latina/o native-born	1.361***	3.899***	0.756***	2.129***	0.826***	2.284***		
	(0.170)	(0.663)	(0.189)	(0.403)	(0.190)	(0.434)		
Latina/o children of immigrant(s)	0.997***	2.709***	0.0917	1.096	0.313	1.367		
	(0.193)	(0.522)	(0.239)	(0.262)	(0.238)	(0.326)		
White children of immigrant(s)	-1.080	0.340	-0.802	0.449	-0.405	0.667		
	(0.595)	(0.202)	(0.596)	(0.267)	(0.599)	(0.399)		
Parent's Age			-0.117***	0.890***	-0.116***	0.891***	-0.111***	0.895***
			(0.0180)	(0.0161)	(0.0178)	(0.0159)	(0.0176)	(0.0157)
Gender			0.0466	1.048	0.0238	1.024	0.0305	1.031
			(0.152)	(0.159)	(0.155)	(0.158)	(0.154)	(0.159)
Age at assessment			-0.00357	0.996	-0.00537	0.995	-0.00624	0.994
			(0.0190)	(0.0189)	(0.0190)	(0.0189)	(0.0190)	(0.0189)
Number of siblings in the home			-0.358***	0.699***	-0.250**	0.779**	-0.236**	0.790**
			(0.0855)	(0.0598)	(0.0813)	(0.0633)	(0.0821)	(0.0649)
SES			-0.673***	0.510***	-0.388***	0.679***	-0.693***	0.500***
			(0.113)	(0.0576)	(0.110)	(0.0746)	(0.155)	(0.0775)
City (Reference)								
Suburb			0.00970	1.010	-0.0338	0.967	-0.0242	0.976
			(0.177)	(0.179)	(0.183)	(0.177)	(0.181)	(0.177)
Town			-0.304	0.738	-0.211	0.810	-0.241	0.785
			(0.316)	(0.233)	(0.321)	(0.260)	(0.319)	(0.250)
Rural			-0.366	0.694	-0.284	0.752	-0.322	0.725
			(0.229)	(0.159)	(0.232)	(0.175)	(0.234)	(0.170)
Living with a single parent					1.366***	3.920***	1.347***	3.845***
					(0.173)	(0.679)	(0.173)	(0.664)
Latina/o native-born							1.056***	2.875***
							(0.215)	(0.618)
Latina/o native-born # SES							0.430*	1.537*
							(0.210)	(0.322)
Latina/o children of immigrant(s)							1.266***	3.545***
							(0.294)	(1.042)
Latina/o children of immigrant(s) # SES							1.019***	2.772***
							(0.251)	(0.696)
White children of immigrant(s)							-0.373	0.689
							(0.596)	(0.410)
White children of immigrant(s) # SES							-0.159	0.853
							(0.488)	(0.417)
Constant	-4.022***	0.0179***	0.516	1.676	0.0695	1.072	-0.151	0.860
	(0.118)	(0.00211)	(1.440)	(2.413)	(1.445)	(1.549)	(1.439)	(1.237)
Observations	9733	9733	9733	9733	9733	9733	9733	9733

*** p<0.001, ** p<0.01, * p<0.05
Standard errors in parentheses

Chapter 3

Family Household Composition and the Academic Performance of Latina/o Children of Immigrant Parents in Kindergarten

Latina/o children of immigrant parents are increasingly represented in K-12th grade in the United States (Lopez, Krogstad and Flores 2018). Their academic performance in early childhood can shape educational trajectories (Crosnoe and Turley 2011) and mobility into adulthood (Alexander, Entwisle and Olson 2014). Yet, we understand little about how family household composition, which captures the number of parents and the types of extended relatives in the home, shapes the academic performance of Latina/o children of immigrant parents in kindergarten. Importantly, family household composition may contribute to educational disparities between Latina/o children of immigrant parents and White children of native-born parents during early childhood (Crosnoe and Turley 2011, Dunifon, Ziol-Guest and Kopko 2014, Foster and Kalil 2007). Given how consequential family household composition are for children's academic performance and the importance of early childhood, this is a key gap.

Educational performance is associated with whether children live with one or two parents (McLanahan and Percheski 2008) and whether children live with extended relatives, including grandparents, aunts, or uncles (Dunifon, Ziol-Guest and Kopko 2014, Kang and Cohen 2017, Mollborn, Fomby and Dennis 2012). Children who live with one parent are typically at an academic disadvantage compared to peers in two-parent households (Amato 2010, McLanahan and Percheski 2008). Children living with grandparents in vertically extended households may receive benefits that translate to positive educational outcomes since grandparents can be a source of care and emotional support (Goodman and Silverstein 2006). However, Kang and Cohen (2017) found that children in two-parent extended households exhibited behavioral issues more frequently compared to children in non-extended households. Though associations between

living with extended relatives vary, they can be consequential for children's academic outcomes and are worth exploring.

An immigrant paradox (Suárez-Orozco, Rhodes and Milburn 2009) or a double disadvantage framework (Crosnoe and Turley 2011) can explain the relationship between race/ethnicity and immigrant generation on children's academic performance compared to children of native-born parents. For instance, the presence of extended relatives in immigrant households is often framed as beneficial for children's wellbeing and academic performance (Fuller-Thomson and Minkler 2007, Mendoza et al. 2017). However, extended relatives can strain household incomes or increase tension among members (Menjívar 2000, Reyes 2018), which may academically disadvantage Latina/o children of immigrant parents. Similarly, though Latina/o children of immigrant parents are less likely to live with a single parent (Landale, Thomas and Van Hook 2011), those who do tend to have fewer resources compared to White children of native-born parents (Crosnoe and Turley 2011, Kochhar and Cilluffo 2017) which may contribute to differences in academic performance. Therefore, living with a single parent or with extended relatives may further produce educational disparities.

I fill a gap in understanding how family household composition shapes the early academic performance of children by analyzing nationally representative data from the Early Childhood Longitudinal Study, 2011 cohort (Tourangeau et al. 2015). I also account for how the relationship between family household composition and academic performance may shift when considering a child's race/ethnicity and immigrant generation. I ask the following research questions:

1. How does a child's family household composition – living with one or two parents or living with different types of extended relatives – shape their academic performance in kindergarten?
2. How does the association between family household composition and academic performance in kindergarten vary by race/ethnicity and immigrant generation?

I consider how family household composition is associated with children's academic performance and analyze implications depending on a child's race/ethnicity and immigrant generation. Further, I contribute to understanding how family household composition, including the presence of vertical or horizontal relatives or children who live with both a single parent and extended relatives, are associated with the academic performance of children in early childhood. Lastly, I illuminate how the association between household composition and academic performance shifts when we consider a child's race/ethnicity and immigrant generation by comparing Latina/o children and White children.

Trends in Family Household Composition

Children are now more likely to reside with a single parent (Amato 2010, Sun and Li 2011) and more likely to live with extended relatives (Bengtson 2001, Deleire and Kalil 2002) than in previous decades. Increases in cohabitation and structural factors like low socioeconomic status have placed children at a higher risk of experiencing parental separation or birth into a single-parent household (Amato and Patterson 2017). Researchers point to economic shifts, the high cost of housing in some regions, and the importance of reciprocal ties with extended relatives as explanations behind a rise in extended households (Bengtson 2001, Cross 2018, Reyes 2018). Children who live with a single parent are also more likely to live with a grandparent who can mediate housing costs, provide care, and provide a transition home

following a separation, divorce, or support for children born into a single-parent household (Goodman and Silverstein 2006, Mutchler and Baker 2009). Therefore, considering all members in the home can better represent contemporary family household composition patterns and provide leverage to analyze how family household composition is consequential for children's educational outcomes.

Family Household Composition and Children's Academic Performance

Children Living with a Single Parent

Children who live in a single-parent household are generally academically disadvantaged compared to children in two-parent households (Amato 2010, Brown, Stykes and Manning 2016, Wagmiller et al. 2010). Children have less access to resources, often face strained parent relationships, and can experience heightened stress following separation or divorce – all factors which can negatively shape how children fare academically (Lee and McLanahan 2015, McLanahan and Percheski 2008, McLanahan, Tach and Schneider 2013, Osborne and Mclanahan 2007).

Confounding factors linked with living with a single parent that may also translate to disparities in academic performance. For instance, socioeconomic status is a strong predictor for academic success. Children who belong to households with higher socioeconomic status tend to outperform peers from lower socioeconomic status households (Ackerman et al. 1999, Linver, Brooks-Gunn and Kohen 2002). Yet, children who live with households with a lower socioeconomic status are at a greater risk of living with only one parent (Amato 2010). Similarly, parents with lower educational attainment have a greater propensity to experience separation from their partner (Amato and Patterson 2017), which in turn may place children at risk of living with a single parent and potentially exhibit poorer educational performance.

Children Living with Extended Relatives

The presence of extended relatives in the home can have unique and independent effects on a child's academic performance, separate from whether they live with one or two parents (Pilkauskas 2014). Most studies have focused on children who live with a grandparent in a vertically extended household since this is the most prevalent extended household. However, there is no clear link between living with a grandparent and children's academic outcomes since it can depend on a child's race/ethnicity, socioeconomic status, and selection factors (Augustine and Raley 2013, Dunifon and Kowaleski-Jones 2007). For instance, Kang and Cohen (2017) found that children living with a grandparent exhibited more behavioral problems compared to children who did not. In contrast, Pilkauskas (2014) found that living with grandparents had no impact on children's' academic performance, but was not the case when co-variates were introduced in analyses since children from lower socioeconomic households were hindered academically when living with a grandparent. While mixed associations between a child living with a grandparent and academic performance exist, children in disadvantaged positions may be the least likely to receive benefits from living with a grandparent.

Fewer studies have explored the association between children living with horizontal relatives and academic outcomes. Living with horizontal relatives, such as an aunt or an uncle, may have different implications for a child's academic performance compared to living with grandparents. For instance, grandparents can amend parental roles and provide childcare, discipline, or help with homework (Dunifon and Kowaleski-Jones 2007) – all which may be positively associated with a child's academic performance. However, horizontal relatives may not provide direct support, may have children of their own to care for, or be in other situations that do not provide children with positive benefits (Cross 2018, Reyes 2018). Further, horizontal

relatives may place a strain on the household, create tensions with parents, and detrimentally shape children's academic performance (Kang and Cohen 2017). Though living with horizontal relatives is less common, there is less evidence to support a link between living with horizontal relatives and children's academic performance.

Children Living with a Single Parent and Extended Relatives

A smaller set of studies has explored the overlap between children living with a single parent and an extended relative (Deleire and Kalil 2002, Dunifon and Kowaleski-Jones 2007, Mutchler and Baker 2009). For instance, Dunifon and Kowaleski-Jones (2007) found that White children who lived with a single parent and grandmother were better off in reading scores compared to children who lived with only a parent, partially attributing this association to the cognitive stimulation grandparents can provide. In contrast to living with a grandparent as protective, Kang and Cohen (2017) found that there was no negative association between living with extended relatives and behavioral problems among children living with a single parent. They suggest that the relationships between single parents and extended kin in these households may be reciprocal compared to households with two parents where parents might be providing support, rather than receiving it, which might strain parent-child relationships and in turn negatively shape children's outcomes. Yet, we know less about children who live with a single parent and only horizontal relatives or both vertical and horizontal relatives. These household arrangements are less common but may have different implications on their association with children's academic performance.

Latina/o Children of Immigrant Parents Family Household Composition and Academic Performance

Researchers have relied on immigrant paradox or double disadvantage frameworks to explain how the educational performance of children of immigrant parents vary compared to

children of native-born parents. These frameworks provide competing explanations behind why a child with immigrant parents might be advantaged or disadvantaged academically and provide a backdrop to explore how household composition might vary by a child's race/ethnicity and immigrant generation. The immigrant paradox outlines that although children of immigrant tend to occupy disadvantaged social locations, they can perform as well or better academically compared to peers with native-born parents because dual frames of reference, less exposure to the negative aspects of incorporation, and immigrant parents' higher educational expectations can benefit them academically (Crosnoe and Turley 2011, Suárez-Orozco, Rhodes and Milburn 2009). In contrast, a double disadvantage framework outlines how Latina/o children of immigrant parents disadvantaged social locations may further disadvantaged them academically compared to the children of native-born parents (Crosnoe 2007, Winsler et al. 2014, Zarate and Pineda 2014). Disadvantage includes lower access to preschool and center-based childcare, immigrant parent's unfamiliarity with U.S. educational systems, lower household socioeconomic status, fewer access to social support services, and delayed English acquisition, all linked with academic performance (Brandon 2004, Crosnoe and Kalil 2010, Crosnoe and Turley 2011, Turney and Kao 2009).

Yet, an immigrant identity may offer advantages to children of immigrant parents who live with a single parent or with extended relatives compared to peers with native-born parents. For instance, though children in a single-parent household are generally at an academic disadvantage compared to children in a two-parent household; Latina/o children of immigrant parents have an immigrant parent which may alter this association. Immigrant parents introduce positive attributes, such as higher educational expectations, strong values on the role of education, and dual frames of references which all serve as encouragement for children and can

be positively tied to academic performance (Crosnoe and Turley 2011, Suárez-Orozco, Rhodes and Milburn 2009).

However, Latina/o children of immigrant parents, who tend to occupy disadvantage positions may be less likely to receive educational benefits from the presence of extended relatives (Kang and Cohen 2017, Pilkauskas 2014). Extended relatives in Latina/o immigrant households may provide different monetary contributions compared to the households of White children of native-born parents which may shape household socioeconomic status and place Latina/o children at a disadvantage compared to extended relatives in White households (Reyes 2018). For instance, Mutchler and Baker (2009) found that children living with a single mother and a grandparent were less likely to be living below or near the poverty level; grandparents can mitigate financial insecurity by providing financial contributions to the household. Since children of immigrant parents are less likely to have a grandparent in the United States compared to children of native-born parents, experiencing single parenthood may be more detrimental. Further, Hummer and Hamilton (2010) found that White single mothers have more socioeconomic resources than Mexican native-born or Mexican immigrant mothers – which might result in Latina/o children of immigrant parents to be worse off than children of native-born parents in single-parent households if economic disparities are greater.

HYPOTHESES

Prior work on family household composition suggests that children who live with a single parent are at an academic disadvantage compared to children who live with two parents. I expect that during kindergarten, children who belong to a single-parent household perform lower in mathematics and reading compared to their peers in two-parent households. In terms of extended household membership, the relationship between living with an extended relative and children's

academic performance is less clear. Most work has focused on children who live with a grandparent. Yet, we understand relatively little about children who live with horizontal relatives or with both vertical and horizontal relatives. Therefore, an analysis of family household composition that includes the number of parents and the types of extended can fill a gap in understanding how living with one or two parents and living with different extended relatives shape children's academic performance.

A gap in the literature is understanding the association between household composition and children's academic performance by a child's race/ethnicity and immigrant generation. Children who occupy disadvantaged social locations may be less likely to receive benefits from living with extended relatives. However, few studies explicitly analyze this relationship among Latina/o children of immigrant parents in early childhood. I hypothesize the following associations between children's household composition and academic performance:

H1a: Children who live with one parent in the home will perform lower in math and reading compared to children who live with two parents.

H1b: Children who live with a vertical relative will perform lower compared to children who live in a non-extended household.

H1c: Children who live with a horizontal relative will perform lower compared to children who live in a non-extended household.

H1d: Children who live with a vertical and horizontal relative will perform lower compared to children who live in a non-extended household.

H2a: Latina/o children of immigrant parents and Latina/o children of native-born parents living with a single parent will perform lower compared to White children of native-born

parents. However, Latina/o children of immigrant parents will be at a greater disadvantage compared to White children of native-born parents.

H2b: Latina/o children of immigrant parents and Latina/o children of native-born parents living with all types of extended relatives will perform lower compared to White children of native-born parents living in a non-extended household. Latina/o children of immigrant parents will be at the greatest disadvantage compared to White children of native-born parents.

H3a: Children who live with two-parents in a vertical, horizontal, or with both vertical and horizontal relatives will perform lower compared to children who live with two-parents in a non-extended household.

H3b: Children who live with a single parent in a vertical, horizontal, or with both vertical and horizontal relatives will perform lower compared to children who live with two-parents in a non-extended household.

METHODOLOGY

The ECLS-K:2011 is a National Center for Education Statistics (NCES) nationally representative random sample of children enrolled in more than one thousand schools across the United States beginning in kindergarten over the 2010-2011 academic year and ending in 5th grade (Tourangeau et al. 2015). The ECSL-K:2011 is ideal since it includes a substantive number of Latina/o children of immigrant parents and information on all household members. The full sample includes 18,170 children. After restricting analyses to Latina/o or White children, the sample size became 13,080, excluding 50 children whose race/ethnicity was undetermined. I dropped 3,051 cases where information on parents in the household was missing, 50 cases where the types of parents in the household was not ascertained, and 291 cases where one or both

parents were identified as “other guardians,” including grandparents. I utilized a final sample size of n = 5015.

Children Living with a Single Parent

I derived single parenthood measures from household rosters including all members living in the home and NCES identified parent figures (Tourangeau et al. 2015). This included designations between children with biological parents, stepparents, and other resident parent figures, including an interviewed parent’s romantic partner. Although previous research has considered cohabiting or stepparent families (Brown, Van Hook and Glick 2008), there were too few Latina/o immigrant cohabiting or stepparent families in the ECLS-K:2011 data to include in analyses. Therefore, I consider all cohabiting or step-parent families as two-parent families. Two-parent families are the reference group.

Children Living with Extended Relatives

I captured membership in extended households using four types: non-extended, vertical (one or more grandparent), horizontal (aunt(s), uncle(s), or other extended relatives), and both vertical and horizontal. In the ECLS-K:2011, each person in the household is assigned a unique roster number. The adult survey respondent identified the relationship of the focal child with all enumerated people in the household. If at least one person is classified as a vertical member, the household is a vertically extended household. Similarly, with at least one horizontal member, the household is considered horizontally extended. Households with both a horizontal and vertical relative have at least one of each type of member. Given my scope, I considered children who lived with other adult non-relatives to live in non-extended households. Children not living in a non-extended household are the reference group.

Race/Ethnicity and Immigrant Generation

I identified Latina/o children and White children in immigrant families with the nativity of parent(s) in the home using fall and spring of kindergarten measures. I used a parent nativity variable that captured whether a parent was born in the United States or outside the United States and a child's race/ethnicity to create groupings: Latina/o children of immigrant parents, Latina/o children of native-born parents, White children of immigrant parents and White children of native-born parents. These groupings do not include children who are multiracial. I combined 1.5th generation and 2nd generation children of immigrant parents since both are socialized in similar contexts at this age (Portes and Rumbaut 2014). Thus, cases for Latina/o children of native-born parents is n = 658, n = 629 for Latina/o children of immigrant parents, n = 257 for White children of immigrant parents, and n = 3471 for White children of native-born parents.

Academic Performance Measures

Measures of academic performance are continuous reading and mathematics Item Response Theory (IRT) scores collected through child assessments in kindergarten (Tourangeau et al. 2015). IRT scores are useful in measuring the academic performance of students since they account for a child's academic ability with a series of questions differing in difficulty. Notably, the NCES made an effort to ensure that children who were not proficient in English at the time of assessment could complete a reading test in Spanish, which helped decrease the number of missing scores (Tourangeau et al. 2015). This is important for Latina/o children of immigrant parents who speak Spanish at home at higher rates compared to Latina/o children of native-born parents and White children of native-born parents. IRT scores provide a standard comparison of academic performance between children of immigrant parents and children of native-born parents.

Control Variables

I control for socioeconomic status by including household income in kindergarten and the interviewed parent's level of education in the spring of kindergarten. I also control for parent's educational expectation for their children, which captures the highest level of education a parent expects their child to obtain, ranging from less than high school to beyond a master's degree. To assess the role of additional people in the home, I include variables capturing the presence of non-extended relatives and the number of siblings in a child's home. These are adult relatives living in the child's household with no kin relationship to the child and no romantic relationship to a child's parent. I omit minors related or unrelated to the focal child since these household members do not account for a substantive number of cases and are beyond my focus. Lastly, I control for a child's gender and their primary language at home during the spring of kindergarten since it may be associated with reading scores.

Analytic Strategy

I first relied on t-tests to assess differences in math and reading scores between children living in one or two-parent households and children living with different types of extended relatives. These comparisons provide an account of the academic performance for all children and revealed significant differences by a child's race/ethnicity and immigrant generation.

To assess the role of family household composition on children's mathematics and reading scores, I relied on five regression models. Model 1 includes math and reading outcomes and their association with family household composition, including living with one or two parents and living with different extended relatives – children living in a two-parent non-extended household are the reference group. I added controls in Model 2, including a child's race/ethnicity and immigrant generation. In Model 3, I analyze the role of race/ethnicity and

immigrant integration by including interactions between household composition, race/ethnicity, and immigrant generation for Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents. The inclusions of interactions ensured I assessed the relationship between family household composition and children's academic outcomes by testing hypotheses 2 on whether the relationship between family household composition and outcomes varied based on a child's race/ethnicity and immigrant generation. I included only cases where children had complete data, primarily with both reading and math scores, but also parent interview data since it included information to create race/ethnicity and immigrant generation groupings alongside key parent and household information. I used sampling weights in all models to maintain representativeness for children enrolled in kindergarten during the 2010-2011 academic year.

RESULTS

Descriptive Statistics

In terms of control variables in Table 3.1, Latina/o children of immigrant parents belong to households with the lowest average income and have parents with the lowest overall educational attainment compared to Latina/o children of native-born parents or White children of native-born parents. Further, Latina/o children of immigrant parents on average lived with more siblings compared to Latina/o children of native-born parents or White children of native-born parents, which may be associated with the level of resources available for each child. There are no significant differences between the percentage of children who live with a non-extended relative, although the number is highest for Latina/o children of immigrant parents.

(Table 3.1 about here.)

Means of Math and Reading Test Scores, by Family Household Composition

Table 3.2 shows that children who live with a single parent perform significantly lower, scoring 48 points versus 51.7 points ($p < .001$) on math and scoring 65.3 points versus 69.4 points ($p < .001$) on reading compared to children who live in a two-parent household. This aligns with previous work on the relationship between children living with a single parent and their academic performance since these children are typically at an academic disadvantage.

(Table 3.2 about here.)

Table 3 shows that children who live with an extended relative on average perform significantly lower on math and reading scores compared to children living without extended relatives. However, the magnitude of differences depended on the type of extended relative in the household. Children living in a vertical household perform significantly lower compared to children in non-extended household scoring 47.9 points versus 51.9 points ($p < .001$) in math and 67 points versus 69.5 points ($p < .05$) in reading, with more pronounced differences in math over reading scores. Similarly, children who live with only horizontal relatives perform lower compared to children in non-extended households, scoring 45.4 points ($p < .001$) in math and 63 points ($p < .001$) in reading. Lastly, children who live with both vertical and horizontal relatives perform significantly lower and the lowest among children living in an extended household compared to children living without extended relatives, scoring 42.6 points ($p < .001$) in math and 61.9 points ($p < .001$) in reading.

(Table 3.3 about here.)

Multivariate Analyses Estimating Math and Reading Test Scores as a Function of Family Household Composition

Family Household Composition (Model 1)

Math Scores

In Table 3.4, Model 1 indicates that children living with a single parent score significantly 2.5 points lower ($p < .001$) in math compared to children living with two parents. In terms of extended household membership, all children in an extended household score lower compared to children in a non-extended household. However, the magnitude of difference in scores varies by the type of extended household. Children living in vertically extended households score significantly 3.4 points lower ($p < .01$) compared to children in non-extended households. Similarly, children in horizontally extended households score significantly 6.2 points lower ($p < .001$). Lastly, children living with vertical and horizontal relatives perform significantly 8.5 points lower ($p < .001$) compared to children in non-extended households.

(Table 3.4 about here.)

Reading Scores

In Table 3.5, Model 1 indicates that children living with a single parent score significantly 3.2 points lower ($p < .001$) in reading compared to children living with two parents. Unlike math scores, not all children in an extended household score significantly lower compared to children in a non-extended household. For instance, children living with one or more grandparents in a vertically extended household score lower compared to children in a non-extended household, however the difference is non-significant. In contrast, children living in horizontally extended households score significantly 6.0 points lower ($p < .001$) compared to children in a non-extended household. Lastly, children living with vertical and horizontal

relatives score significantly 6.5 points lower ($p < .001$) compared to children in a non-extended household.

(Table 3.5 about here.)

Family Household Composition, Race/Ethnicity, and Immigrant Generation

Math Scores

Model 2 includes dummy variables capturing race and immigrant generation, with White children and children with native-born parents as the reference groups. Unlike for Model 1, living with a single parent is negatively associated with math scores but non-significant compared to living with two parents. Further, children living with vertical and horizontal relatives are the only children to score significantly 4.0 points lower ($p < .01$) compared to children in a non-extended household. Compared to White children, Latina/o children score significantly 3.1 points lower ($p < .001$). Children of immigrant parents score .9 points lower, however the difference is non-significant.

In terms of control variables, living with non-relatives is negative but non-significant. Language at the home is significantly associated ($p < .001$) with math scores. Further, higher income is positively and significantly associated ($p < .001$) with higher math scores. Lastly, the higher a degree a parent expects their child to obtain and the higher a parent's educational level in the spring of kindergarten, the better a child performs. Both measures are positive and significantly associated ($p < .001$) with math scores. Gender and the number of siblings in the home are not significantly associated with math scores.

Reading Scores

Consistent with Model 1, Model 2 indicates that children living with a single parent negatively and significantly score 1.2 points lower ($p < .05$) in reading compared to children

living with two parents. Across the board, children living with extended relatives score lower compared to children in a non-extended household. However, differences are non-significant for children living in vertical or horizontal households, unlike Model 1. Children living with vertical and horizontal relatives significantly score 2.8 points lower ($p < .05$) compared to children in non-extended households. Compared to White children, Latina/o children score significantly 1.8 points lower ($p < .01$) while children of immigrant parents perform .5 points lower compared to children of native-born parents, however the difference is non-significant.

In terms of control variables, children who live with a non-relative score significantly 3.3 points lower ($p < .01$). Higher household income is positively and significantly associated ($p < .001$) with better reading scores. Female children perform significantly 1.3 points higher ($p < .01$) compared to male children. Further, the higher the number of siblings the lower a child's reading scores since it is negative and significantly associated ($p < .001$). Children who speak English at home are at a significant advantage and score 2.8 points higher ($p < .05$). Lastly, the higher degree a parent expects their child to obtain and the higher a parent's educational level in the spring of kindergarten, the better a child performs. Both measures are positive and significantly associated ($p < .001$) with reading scores.

Family Household Composition, Race/Ethnicity, Immigrant Generation

Model 3 in Tables 3.4 and 3.5 demonstrate the role of family household composition alongside race/ethnicity and immigrant generation. White children of native-born parents are the reference group. These groupings allow comparisons by race/ethnicity and immigrant generation while Model 2 included separate correlates of race/ethnicity and immigrant generation.

Math Scores

Children living with a single parent score .1 points lower compared to children who live with two parents; however, the difference is non-significant. Compared to children living in a non-extended household, children living with vertical relatives score 1.6 points lower and children living with horizontal relatives perform 1.0 point lower, however the differences are non-significant. Children who live with vertical and horizontal relatives score significantly 4.0 points lower ($p < .01$) compared to children in non-extended households.

Interactions between race/ethnicity and immigrant generation reveal key differences absent from Model 2. Latina/o children score lower in math while children of immigrant parents did not differ significantly in compared to children of native-born parents. In Model 3, White children of immigrant parents score 1.1 points lower compared to White children of native-born parents, but the difference is non-significant. In contrast, Latina/o children of native-born parents score significantly 3.3 points lower ($p < .001$) while Latina/o children of immigrant parents score 3.9 points lower ($p < .001$) compared to White children of native-born parents. Notably, associations between control variables do not change from Model 2 to Model 3. Immigrant generation was not a factor among White children across immigrant generations. Yet, Latina/o children of immigrant parents and Latina/o children of native-born parents performed lower compared to White children of native-born parents.

Reading Scores

Children living with a single parent score significantly 1.2 points lower ($p < .05$) compared to children living with two parents, consistent with Model 2. Compared to children living in a non-extended household, children living with vertical relatives score .3 points lower while children living with horizontal relatives perform 1.2 points lower, however differences are

non-significant. In contrast, children who live with vertical and horizontal relatives score significantly 2.8 points lower ($p < .05$) compared to children in non-extended households.

White children of immigrant parents score .3 points lower compared to White children of native-born parents, but the difference is non-significant. Unlike with math scores, Latina/o children of native-born parents score significantly 1.3 points lower ($p < .05$). Similarly, Latina/o children of immigrant parents score significantly 2.7 points lower ($p < .01$) compared to White children of native-born parents. Again, accounting for race/ethnicity and immigrant generation revealed salient differences in academic performance with Latina/o children of immigrant parents and Latina/o children of native-born parents at a disadvantage compared to White children of a native-born parents.

Children living with a Single Parent and Extended Relatives

Model 4 demonstrates how living with a single parent is also linked with living with extended relatives and addresses prior literature on the overlap between living with a single parent and an extended relative on children's academic performance.

Math Scores

Consistent with Model 3, Model 4 indicates that Latina/o children of native-born parents score significantly 3.3 points lower ($p < .001$) compared to White children with native-born parents. Similarly, Latina/o children of immigrant parents score significantly 3.9 points lower ($p < .001$). In contrast, White children of immigrant parents perform lower compared to White children of native-born parents, but the difference is non-significant.

Interactions between living with one or two parents and living with extended relatives revealed slight changes compared to Model 3. For instance, there are no significant differences between children living with two parents in a vertical or horizontal household compared to

children in a two-parent non-extended household. However, children living in a two-parent vertical and horizontal household significantly score 4.1 points lower ($p < .01$) compared to children in a two-parent non-extended household. However, there are no significant differences between children living in a non-extended single-parent household, a single-parent household with vertical relatives, horizontal relatives, or both vertical and horizontal relatives. Only children living with two parents and both vertical and horizontal relatives were at an academic disadvantage compared to children living in a two-parent non-extended household.

Reading Scores

Model 4 indicates that Latina/o children of native-born parents score significantly 1.3 points lower ($p < .05$) compared to White children of native-born parents. Similarly, Latina/o children of immigrant parents score significantly 2.7 points lower ($p < .01$) compared to White children of native-born parents. In contrast, White children of immigrant parents score .3 points higher, but the difference is non-significant.

There are notable changes between Model 3 and Model 4 when accounting for the interaction between living with a single parent and extended relatives. However, there are no significant differences between children in two-parent vertical or horizontal household compared to children in two-parent non-extended households. Further, children who live in a two-parent household with both vertical and horizontal relatives score significantly 4.2 points lower ($p < .01$) compared to children in a two-parent non-extended household. Children living with a single parent in a non-extended household score .7 points lower, however the difference is non-significant. Further, children living in a single-parent vertically extended household score 1.9 points lower compared to children in a two-parent non-extended household, however the difference is non-significant. Yet, children living in a single-parent horizontally extended

household score significantly 6.3 points lower ($p < .001$) compared to children in a two-parent non-extended household. Lastly, children living with a single parent and vertical and horizontal relatives score 2.2 points lower compared to children living with two parents in a non-extended household, however the difference is non-significant.

Family Household Composition, by Race/ethnicity and Immigrant Generation Groupings

Model 5 builds on Model 4 to assess the interaction between race/ethnicity, immigrant generation, and family household composition.

Math Scores

Latina/o children of native-born parents living in a two-parent non-extended household score significantly 3.7 points lower ($p < .001$) while Latina/o children of immigrant parents score 3.9 points lower ($p < .001$) compared to White children of native-born parents living in a two-parent non-extended household. White children of immigrant parents also score lower, but the difference is non-significant.

In terms of living with two parents and extended relatives and compared to White children of native-born parents in two-parent non-extended households, Latina/o children of native-born parents living in a two-parent vertically extended household score significantly lower, scoring 4.8 points lower ($p < .01$) while Latina/o children of immigrant parents score 4.7 points lower ($p < .01$). However, only Latina/o children of immigrant parents living in a two-parent horizontally extended household score significantly lower, scoring 5.2 points lower ($p < .001$). Further, White children of native-born parents in a two-parent household with vertical and horizontal relatives score 8.1 points lower ($p < .001$), White children of immigrant parents 14.0 points lower ($p < .001$), and Latina/o children of immigrant parents 6.5 points lower ($p < .01$).

Lastly, Latina/o children of native-born parents also score lower, but the difference is non-significant.

For children living with one parent and compared to White children of native-born parents in a two-parent non-extended household, Latina/o children of native-born parents in a non-extended household score significantly 2.7 points lower ($p < .05$) and Latina/o children of immigrant parents 4.3 points lower ($p < .05$). However, there are no significant differences between children in a single-parent vertical household compared to children in a two-parent non-extended household. Latina/o children of native-born parents living in a single-parent horizontally extended household score significantly lower, scoring 8.3 points lower ($p < .01$) while Latina/o children of immigrant parents score 6.2 points lower ($p < .05$). Further, only White children of immigrant parents living in a single-parent household with vertical and horizontal relatives score significantly 7.4 points lower ($p < .001$) compared to children in a two-parent non-extended household.

Reading Scores

Latina/o children of immigrant parents living in a two-parent non-extended household score significantly lower, scoring 3.2 points lower ($p < .001$) compared to White children of native-born parents in a two-parent non-extended household. However, there are no significant differences between Latina/o children of native-born parents or White children of immigrant parents compared to White children of native-born parents in two-parent non-extended households.

In terms of living with two parents and different types of extended relatives, there are no significant differences between any child living in a two-parent vertically extended household and White children of native-born parents in a two-parent non-extended household. Latina/o

children of native-born parents living in a two-parent horizontally extended household score 3.9 points lower ($p < .05$) while Latina/o children of immigrant parents score 2.9 points lower ($p < .001$). Further, White children of native-born parents in a two-parent household with vertical and horizontal relatives score 8.1 points lower ($p < .001$), White children of immigrant parents score 10.4 points lower ($p < .05$). Latina/o children of native-born parents and Latina/o children of immigrant parents living with vertical and horizontal relatives also score lower, however the difference is non-significant.

For children living with one parent and compared to White children of native-born parents in a two-parent non-extended household, only Latina/o children of immigrant parents living in a non-extended household perform significantly lower, scoring 3.3 points lower ($p < .01$). Similarly, only Latina/o children of immigrant parents living in a single-parent vertically extended household score lower, scoring 5.2 points lower ($p < .05$). Latina/o children of native-born parents also perform lower, but the difference is non-significant. Further, White children of native-born parents in a single-parent horizontally extended household score significantly 6.1 points lower ($p < .01$), Latina/o children of native-born parents 7.7 points lower ($p < .001$), and Latina/o children of immigrant parents 9.3 points lower ($p < .001$). Lastly, White children of immigrant parents in a single-parent household with both vertical and horizontal relatives score lower, scoring 8.3 points lower ($p < .001$). Latina/o children of native-born parents and Latina/o children of immigrant parents also score lower; however, the difference is non-significant.

DISCUSSION

Family household composition can be consequential for children's wellbeing and academic performance. Yet, we know relatively little about the role of family household composition on Latina/o children of immigrant parents academic performance. I fill this gap

using data from the ECLS-K:2011 and test the association between children living with one or two parents and/or with different types of extended relatives on academic performance. I also assess how the relationship between household composition and academic outcomes is altered when accounting for a child's race/ethnicity and immigrant generation. Researchers suggest variation exists by race/ethnicity and immigrant generation (Kang and Cohen 2017, Pilkauskas 2014) which may shape whether family household composition has negative or positive implications for academic performance. However, few studies have assessed how family household composition shapes children's academic outcomes during early childhood among Latina/o children of immigrant parents using nationally representative data.

Consistent with previous studies, children living with a single parent perform lower on math and reading compared to children living with two parents. Additionally, children in all types of extended households (vertical, horizontal, or a combination of vertical and horizontal) perform lower than children who live in a non-extended household. However, these associations did not stand when I accounted for a child's race/ethnicity and immigrant generation. Yet, I found no clear association between family household composition and academic performance, however children in some arrangements were at a significant disadvantage. Family household composition can therefore be consequential for children's outcomes, but variation in the association between living with one or two parents or extended relatives exists.

In Model 1, I found support for Hypothesis 1a. There is a negative association between living with a single parent compared to two parents and children's academic performance. This demonstrates the salient role living with one parent has on a child's academic performance but excludes additional factors associated with academic performance. I also found support for Hypothesis 1b, c, and d, since children living with extended relatives are academically

disadvantaged compared to children in non-extended households. Younger children may not receive the types of benefits that living with an extended relative offer during other time periods, like adolescence (Amorim, Dunifon and Pilkauskas 2017, Dunifon and Bajracharya 2012). However, disparities in academic performance depended on the type of extended relative at home. Children living with a grandparent in vertical households performed lower compared to children living in non-extended households. However, children living in horizontal households performed even lower. Yet, children living with both vertical and horizontal relatives perform the lowest. This was a pattern consistent across all models, indicating that living with an extended relative during kindergarten is not positively associated with academic performance.

Model 2 demonstrated how the association between family household composition and academic performance is altered with controls, including variables for a child's race/ethnicity and immigrant generation. For instance, living with a single parent was no longer associated with lower math scores in Model 2. However, living with a single parent is negatively associated with reading scores in Model 1 and Model 2. Yet, there are no significant differences between children with immigrant parents and children with native-born parents. This was surprising since I expected children of immigrant parents to lag behind their peers with native-born parents. Most research on early childhood has found limited support for an academic advantage among children of immigrant parents (Crosnoe and Turley 2011). However, this incongruency motivated analyzing the interaction between race/ethnicity and immigrant generation.

Model 3 included interactions to assess how the association between family household composition and academic performance varied by a child's race/ethnicity and immigrant generation. Grouping children by race/ethnicity and immigrant generation revealed key differences. For instance, Latina/o children of native-born or immigrant parents underperformed

compared to White children of native-born parents; however, Latina/o children of immigrant parents perform the lowest. This suggests that immigrant generation may offer a disadvantage when analyzed alongside race/ethnicity. Yet, I found that White children of immigrant parents were not disadvantaged compared to White children of native-born parents, which may be associated with their advantaged position relative to Latina/o children of immigrant parents. Therefore, family household composition may have distinct implications for children's academic performance when accounting for the combined role of a child's race/ethnicity and immigrant generation.

Given the link between single parenthood and co-residence with extended relatives, particularly grandparents, Model 4 included interactions between living with one or two parents and extended relatives. For math and reading scores, there were no differences between children living with two parents in vertical or horizontal compared to children living with two parents in non-extended households. Yet, children living with both vertical and horizontal relatives performed lower in math and reading. For reading scores, children living with a single parent and either vertical or horizontal relatives performed lower. These findings indicate no clear-cut association between the number of parents and the types of extended relatives in the home. However, children who live with both types of extended relatives tend to be at the greatest academic disadvantage.

Model 5 assessed how race/ethnicity and immigrant generation altered the association between family household composition and children's academic performance. This approach accounted for children living with one or two parents in non-extended households or with different types of extended relatives. Overall, I did not find support for Hypothesis 3 since there was no clear association between living with a single parent or two parents and extended

relatives. Rather, some family household arrangements were more detrimental for children's academic performance than others, particularly when a child lived with a single parent and extended relatives. However, this varied depending on which group was compared to White children of native-born parents.

Latina/o children of immigrant parents living with two parents in non-extended households performed lower on both math and reading scores compared to White children of native-born parents while Latina/o children of native-born parents performed lower only in math scores. Yet, there were no differences in math or reading scores between White children of immigrant parents and White children of native-born parents. If White children of immigrant parents occupy advantaged positions, including belonging to household with higher socioeconomic status, this may offset the possible disadvantage associated with living with an extended relative. However, not all extended household types offer a disadvantage for Latina/o children of immigrant parents or Latina/o children of native-born parents but there are key differences with children performing lower than White children of native-born parents. Children's relative socioeconomic position might make a difference whether living with an extended relative is inconsequential or associated with negative academic performance.

For children who lived with two parents and an extended relative, I found that Latina/o children of native-born parents and Latina/o children of immigrant parents were at a disadvantage when living in a vertical household in math but not reading scores. Further, Latina/o children of native-born parents and Latina/o children of immigrant parents were at a disadvantage when living in a horizontal household for math and reading scores. For children living with vertical and horizontal relatives, White children of native-born parents were at a disadvantage for math and reading scores, White children of immigrant parents for math and

reading scores, Latina/o children of immigrant parents for math and reading scores, and Latina/o children of native-born parents scored lower, but differences were non-significant.

These patterns were surprising, I expected children living with extended relatives to perform lower. However, my findings did not align with previous work on the consequences of children living with extended relatives. For instance, White children of native-born parents did not perform significantly better when they lived with a grandparent in the household and Latina/o children of native-born parents performed worse in this arrangement. Similarly, prior work suggests that living with horizontal relative may be beneficial for Latina/o children of immigrant parents (Mendoza et al. 2017), but I found that this placed them at an academic disadvantage compared to White children of native-born parents. However, these findings are consistent with some studies that found that living with extended relatives was inconsequential for children's academic performance, even when controlling for race/ethnicity (Pilkauskas 2014).

More research is needed to understand under which conditions the presence of extended relatives is beneficial or detrimental for children's academic performance. For instance, children of immigrant parents who live with horizontal relatives may not be receiving benefits that translate to positive educational outcomes, consistent with studies suggesting that horizontal households may reduce the availability of resources in a child's household (Reyes 2018) which may negatively shape their academic performance. Similarly, Latina/o children of native-born parents who live with a grandparent may be doing so out of necessity rather than reciprocal relationships (Angel and Tienda 1982, Reyes 2018); which may place strain among household members and negatively shape children's academic outcomes. Further, living with vertical and horizontal relatives generally places children at a risk of performing lower compared to White children of native-born parents in two-parent non-extended households. This is the least common

arrangement but may have the greatest negative implications for children. These households may disproportionality exhibit high levels of stress, economic strain, be larger households, and consistent of overall less access to resources for children or could shape parent-child relationships even when there are two parents in the household (Dunifon, Ziol-Guest and Kopko 2014, Pilkauskas 2014, Pilkauskas and Dunifon 2016).

Children living in a single-parent household with vertical and horizontal relatives tended to score the lower, but differences depended on the outcome of interest and comparison groups. For instance, Latina/o children of immigrant parents scored lower compared to White children of native-born parents belonging to two-parent non-extended households in math and reading. Although the reading test was also administered in Spanish for children who did not have sufficient English comprehension, Latina/o children of immigrant parents still scored lower. Latina/o children of immigrant parents also scored lower in reading when living with a single parent in a vertically extended household. Educational disparities may have been lower if children did not have sufficient English proficiency and were not able to take the reading test in Spanish. However, Latina/o children of immigrant parents English proficiency tends to increase steadily from grade to grade (Collins et al. 2014) and these results still underscore that Latina/o children of immigrant parents are in academically disadvantaged positions compared to White children of native-born parents.

Latina/o children of native-born parents and Latina/o children of immigrant parents living in a single-parent horizontally extended household scored lower in math compared to White children of native-born parents living in two-parent non-extended households. Surprisingly, there were no differences between Latina/o children of immigrant parents or Latina/o children of native-born parents living in a single-parent household with both vertical and horizontal relatives

compared to White children of native-born parents. I expected this to be the most detrimental arrangement. However, these households may be strained socioeconomically and relatives in these homes may not necessarily offer support that translates to positive educational performance for children. Children in privileged positions may benefit from having extended relatives in the home (Pilkauskas and Cross 2018) while children in less privileged positions may be living out of necessity or in situations where stress and tensions are higher than in households with strategic arrangements.

I contribute to understanding the consequences of family household composition on children's academic performance, particularly when accounting for a child's race/ethnicity and immigrant generation. Further, I take a holistic approach, considering different types of extended relatives in the home and the connection between children living with one or two parents and different types of extended relatives. I showed that family household composition can have unique effects since living with a single parent is generally associated with lower academic performance while living with extended relatives is also associated with lower performance; however, the magnitude depends on the type of extended relative and the overlap between living with one or two parents and extended relatives. Yet, when considering a child's race/ethnicity and immigrant generation, associations between family household composition and academic performance vary.

Family household composition is a partial explanation behind educational performance disparities between Latina/o children and White children. White children of native-born parents outperformed Latina/o children of native-born parents and Latina/o children of immigrant parents in all models, including when accounting for the interaction between race/ethnicity, immigrant generation, and living with a single parent and extended relatives. Unlike previous

studies that suggest that living with an extended relative is associated with positive children's outcomes, I find that this is not the case. I expected some arrangements to offer benefits, even among White children in two-parent households with grandparents in the home. Yet, accounting for both race/ethnicity and immigrant generation offered insights. For instance, White children of immigrant parents perform on par with White children of native-born parents which might be an explanation behind why immigrant generation is not significantly associated with children's academic performance until accounting for the intersection between race/ethnicity and immigrant generation. These findings suggest that family household composition can be among one of many factors associated with educational disparities but does not always present a disadvantage. Instead, it depends on the outcome of interest and which groups are compared to one another.

There are limitations in this study. First, I only assess differences between Latina/o children and White children of native-born parents and do not explore differences among Latina/o ethnic groups. Though Mexicans represent the largest group in the ECLS-K, there are not enough cases to parse Latina/o ethnic groups. For instance, some Latina/o groups, like Mexicans with a long history of migration and settlement in the United States (Hibel and Hall 2013, Jiménez 2008), may have different family formation patterns compared to other groups, with recent migration patterns. Further, family networks might differ depending on a child's ethnic group with implications on the availability of extended kin to co-reside (Glick 1999). These differences may in turn translate to disparities in academic performance among Latina/o ethnic groups and compared to White children of native-born parents.

The ECLS-K:2011 does not capture measures of parent's or child's legal status, which may also have implications for the association between household composition and academic performance. Kang and Cohen (2017) found that children with undocumented parents were at the

greatest disadvantage in behavioral outcomes compared to Latina/o children of native-born parents or White children of native-born parents. In particular, researchers have focused on how Latina/o children of immigrant parents from mixed status families may be at heightened risk of experiencing separation from a parent through legal processes like delayed family reunification, detention, or deportation (Abrego 2014, Dreby 2012, Enchautegui and Menjívar 2015). Therefore, legal status might alter the relationship between who children live with and their academic performance. Therefore, we need to explore additional factors that may shape the association between household composition and children's academic outcomes among Latina/o children of immigrant parents. Future work can continue exploring how family household composition is consequential for children's outcomes and reveal nuances when accounting for a child's race/ethnicity and immigrant generation.

Table 3.1 - Weighted Descriptive Statistics in Kindergarten (Means and Proportions)

Variable	All children (N = 5015) M	SD	White native-born (n = 3471) M	SD	White children of immigrants (n = 257) M	SD	Latina/o native-born (n = 658) M		SD	Latina/o children of immigrant(s) (n = 629) M		SD
Academic Performance												
Math	51.24	12.67	53.41	12.06	52.81	12.74	47.97	***	12.25	42.00	***, +++	11.46
Reading	68.94	13.72	70.78	13.25	71.48	14.09	67.03	***	13.77	59.68	***, +++	11.90
Household Composition												
Single-parent household	12.08%		10.97%		4%		15.82%	***		17.62%	*	
Non-extended household	88.39%		92.47%		92%		80.23%	***		72.96%	***, +	
Vertical household	5.29%		4.37%		6%		8.75%	***		6.63%	**	
Horizontal household	4.45%		2.24%		2%		5.76%	**		16.52%	***, +++	
Vertical and horizontal household	1.87%		0.93%		5%		5.26%	***		3.90%	***	
Living with a non-relative	2.23%		1.92%		2%		2.65%			3.72%		
Number of siblings in the home	1.55	1.06	1.50	0.99	1.46	1.22	1.65	**	1.16	1.80	***	1.20
Controls												
Household income category	11.80	5.31	13.08	4.67	13.59	4.45	10.17	***	5.43	5.69	***, +++	3.84
Gender (female)	48.57%		48.78%		47%		46.89%			49.72%		
Language at home												
Non-English Language	13.38%		0.03%		18%		12.33%	***		86.56%	***, +++	
English Language	85.60%		99.97%		80%		83.80%	***		10.25%	***, +++	
Can't choose primary, or two used equally	1.02%		0.00%		2%		3.87%	***		3.19%	***	
Expected Degree												
Complete 4 or 5-year university	51%		56%		48%		46%	*		36%	***,++	
Parent Educational Attainment												
Bachelor's Degree	26%		31%		35%		18%	***		4%	***, +++	

*** p<0.001, ** p<0.01, * p<0.05 (White native-born children as the reference group)
+++ p<0.001, ++ p<0.01, + p<0.05 (Latina/o native-born children compared to Latina/o children of immigrant(s))

Table 3.2 – Weighted Math and Reading Scores by the Number of Parents in the Home

Variable	Two-parent household M	SD	Single-parent household M	SD	
Academic Performance					
Math - K	51.7	12.6	48.0	12.6	***
Reading - K	69.4	13.8	65.3	12.3	***

*** p<0.001, ** p<0.01, * p<0.05

Table 3.3 – Weighted Math and Reading Scores by the Type of Extended Household Member(s) in the Home

	Non-extended household		Vertical household		Horizontal household		Vertical and horizontal household	
Variable	M	SD	M	SD	M	SD	M	SD
Academic Performance								
Math - K	51.9	12.5	47.9	12.5 ***	45.4	12.4 ***	42.6	12.8 ***
Reading - K	69.5	13.7	67.0	12.9 *	63.0	12.7 ***	61.9	11.8 ***

*** p<0.001, ** p<0.01, * p<0.05

Table 3.4 Weighted Regression Results for Math Scores in Spring K

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Living with a single parent	-2.503***	0.0938	0.107		
	-0.587	-0.62	-0.618		
1. Living in a non-extended household (Reference)					
2. Living with vertical relative(s)	-3.370***	-1.61	-1.604		
	-0.93	-0.916	-0.915		
3. Living with horizontal relative(s)	-6.164***	-0.982	-0.995		
	-1.127	-0.936	-0.944		
4. Living with both vertical and horizontal relative(s)	-8.463***	-4.049**	-4.042**		
	-1.263	-1.216	-1.22		
Latina/o		-3.146***			
		-0.628			
Child of immigrant parent(s)		-0.864			
		-0.687			
Living with non-relative(s)		-1.624	-1.616	-1.659	-1.442
		-1.158	-1.156	-1.153	-1.14
Household income category		0.295***	0.297***	0.301***	0.300***
		-0.0507	-0.0504	-0.0509	-0.0509
Gender		-0.428	-0.428	-0.423	-0.443
		-0.337	-0.337	-0.338	-0.334
Number of siblings in the home		-0.0149	-0.0154	-0.00685	-0.0135
		-0.161	-0.161	-0.16	-0.16
Language at home		1.713**	1.793**	1.813**	1.768**
		-0.642	-0.652	-0.648	-0.6
Degree expected		0.883***	0.878***	0.880***	0.883***
		-0.194	-0.195	-0.194	-0.194
Parent 1's education level in fall/spring K		1.337***	1.343***	1.346***	1.338***
		-0.141	-0.146	-0.146	-0.145
White native-born (Reference)					
White child of immigrant(s)			-1.086	-1.08	
			-0.891	-0.887	
Latina/o native-born			-3.284***	-3.270***	
			-0.706	-0.708	
Latina/o child of immigrant(s)			-3.878***	-3.835***	
			-0.856	-0.849	

Table 3.4 Continued

Two-parent household # Living in a non-extended household (Reference)				
Two-parent household # Living with vertical relative(s)	-1.442			
	-1.108			
Two-parent household # Living with horizontal relative(s)	0.176			
	-0.929			
Two-parent household # Living with both vertical and horizontal relative(s)	-4.120**			
	-1.489			
Single-parent household # Living in a non-extended household	0.659			
	-0.723			
Single-parent household # Living with vertical relative(s)	-1.619			
	-1.213			
Single-parent household # Living with horizontal relative(s)	-4.233			
	-2.138			
Single-parent household # Living with both vertical and horizontal relative(s)	-3.685			
	-2.166			
Two-parent household # Living in a non-extended household # White native-born				
Two-parent household # Living in a non-extended household # White child of immigrant(s)		-1.237		
		-0.929		
Two-parent household # Living in a non-extended household # Latina/o native-born		-3.717***		
		-0.864		
Two-parent household # Living in a non-extended household # Latina/o child of immigrant(s)		-3.861***		
		-0.909		
Two-parent household # Living with vertical relative(s) # White native-born		-1.606		
		-1.587		
Two-parent household # Living with vertical relative(s) # White child of immigrant(s)		-3.85		
		-2.937		
Two-parent household # Living with vertical relative(s) # Latina/o native-born		-4.819**		
		-1.715		
Two-parent household # Living with vertical relative(s) # Latina/o child of immigrant(s)		-4.664**		
		-1.685		
Two-parent household # Living with horizontal relative(s) # White native-born		1.294		
		-1.64		

Table 3.4 Continued

Two-parent household # Living with horizontal relative(s) # White child of immigrant(s)	-0.79 -1.834
Two-parent household # Living with horizontal relative(s) # Latina/o native-born	0.132 -1.758
Two-parent household # Living with horizontal relative(s) # Latina/o child of immigrant(s)	-5.231*** -1.22
Two-parent household # Living with both vertical and horizontal relative(s) # White native-born	-8.103*** -1.61
Two-parent household # Living with both vertical and horizontal relative(s) # White child of immigrant(s)	-13.96*** -3.903
Two-parent household # Living with both vertical and horizontal relative(s) # Latina/o native-born	-2.243 -3.017
Two-parent household # Living with both vertical and horizontal relative(s) # Latina/o child of immigrant(s)	-6.518** -2.257
Single-parent household # Living in a non-extended household # White native-born	0.594 -0.855
Single-parent household # Living in a non-extended household # White child of immigrant(s)	5.866* -2.332
Single-parent household # Living in a non-extended household # Latina/o native-born	-2.730* -1.22
Single-parent household # Living in a non-extended household # Latina/o child of immigrant(s)	-4.336* -1.672
Single-parent household # Living with vertical relative(s) # White native-born	-2.114 -1.23
Single-parent household # Living with vertical relative(s) # White child of immigrant(s)	0 (.)
Single-parent household # Living with vertical relative(s) # Latina/o native-born	-6.025 -4.388
Single-parent household # Living with vertical relative(s) # Latina/o child of immigrant(s)	-2.598 -2.474
Single-parent household # Living with horizontal relative(s) # White native-born	-7.328 -4.134

Table 3.4 Continued

Single-parent household # Living with horizontal relative(s) # White child of immigrant(s)					0
					(.)
Single-parent household # Living with horizontal relative(s) # Latina/o native-born					-8.338**
					-2.529
Single-parent household # Living with horizontal relative(s) # Latina/o child of immigrant(s)					-6.224*
					-2.47
Single-parent household # Living with both vertical and horizontal relative(s) # White native-born					-5.274
					-3.4
Single-parent household # Living with both vertical and horizontal relative(s) # White child of immigrant(s)					-7.355***
					-0.971
Single-parent household # Living with both vertical and horizontal relative(s) # Latina/o native-born					-4.303
					-2.308
Single-parent household # Living with both vertical and horizontal relative(s) # Latina/o child of immigrant(s)					-8.498
					-4.73
Constant	52.15***	34.74***	34.57***	34.39***	34.57***
	-0.447	-1.794	-1.84	-1.826	-1.812
Observations	5015	5015	5015	5015	5015

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses

Table 3.5 Weighted Regression Results for Reading Scores in Spring K

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Living with a single parent	-3.226***	-1.191*	-1.237*		
	-0.578	-0.579	-0.579		
Living in a non-extended household (Reference)					
Living with vertical relative(s)	-1.672	-0.279	-0.303		
	-0.888	-0.871	-0.869		
Living with horizontal relative(s)	-6.005***	-1.214	-1.167		
	-0.954	-0.805	-0.814		
Living with both vertical and horizontal relative(s)	-6.455***	-2.753*	-2.778*		
	-1.233	-1.145	-1.14		
Latina/o		-1.787**			
		-0.594			
Child of immigrant parent(s)		-0.476			
		-0.85			
Living with non-relative(s)		-3.284**	-3.312**	-3.333**	-3.235**
		-1.07	-1.067	-1.054	-1.06
Household income category		0.223***	0.219***	0.221***	0.215***
		-0.0525	-0.0526	-0.0531	-0.0542
Gender		1.281**	1.278**	1.275**	1.273**
		-0.402	-0.403	-0.405	-0.402
Number of siblings in the home		-0.718***	-0.717***	-0.706***	-0.717***
		-0.191	-0.19	-0.191	-0.186
Language at home		3.497***	3.217***	3.250***	3.187***
		-0.832	-0.794	-0.792	-0.704
Degree expected		0.999***	1.017***	1.020***	1.017***
		-0.167	-0.168	-0.167	-0.166
Parent 1's education level in fall/spring K		1.394***	1.374***	1.380***	1.374***
		-0.148	-0.147	-0.147	-0.147
White native-born (Reference)					
White child of immigrant(s)			0.304	0.311	
			-1.066	-1.067	
Latina/o native-born			-1.305*	-1.301*	
			-0.611	-0.613	
Latina/o child of immigrant(s)			-2.724**	-2.680**	
			-0.873	-0.853	

Table 3.5 Continued

Two-parent household # Living in a non-extended household (Reference)	0		
	(.)		
Two-parent household # Living with vertical relative(s)	-0.0173		
	-1.055		
Two-parent household # Living with horizontal relative(s)	0.158		
	-1.05		
Two-parent household # Living with both vertical and horizontal relative(s)	-4.195**		
	-1.286		
Single-parent household # Living in a non-extended household	-0.746		
	-0.654		
Single-parent household # Living with vertical relative(s)	-1.929		
	-1.15		
Single-parent household # Living with horizontal relative(s)	-6.267***		
	-1.23		
Single-parent household # Living with both vertical and horizontal relative(s)	-2.171		
	-1.78		
Two-parent household # Living in a non-extended household # White native-born		0	
		(.)	
Two-parent household # Living in a non-extended household # White child of immigrant(s)		0.323	
		-1.191	
Two-parent household # Living in a non-extended household # Latina/o native-born		-1.324	
		-0.693	
Two-parent household # Living in a non-extended household # Latina/o child of immigrant(s)		-3.172***	
		-0.913	
Two-parent household # Living with vertical relative(s) # White native-born		-0.986	
		-1.47	
Two-parent household # Living with vertical relative(s) # White child of immigrant(s)		-1.831	
		-2.576	
Two-parent household # Living with vertical relative(s) # Latina/o native-born		-1.851	
		-2.241	
Two-parent household # Living with vertical relative(s) # Latina/o child of immigrant(s)		-0.0867	
		-2.219	

Table 3.5 Continued

Two-parent household # Living with horizontal relative(s) # White native-born	1.452 -1.836
Two-parent household # Living with horizontal relative(s) # White child of immigrant(s)	-5.855 -3.453
Two-parent household # Living with horizontal relative(s) # Latina/o native-born	-3.947* -1.762
Two-parent household # Living with horizontal relative(s) # Latina/o child of immigrant(s)	-2.913* -1.435
Two-parent household # Living with both vertical and horizontal relative(s) # White native-born	-8.138*** -1.606
Two-parent household # Living with both vertical and horizontal relative(s) # White child of immigrant(s)	-10.41* -4.015
Two-parent household # Living with both vertical and horizontal relative(s) # Latina/o native-born	-4.397 -3.134
Two-parent household # Living with both vertical and horizontal relative(s) # Latina/o child of immigrant(s)	-3.817 -1.933
Single-parent household # Living in a non-extended household # White native-born	-1.105 -0.761
Single-parent household # Living in a non-extended household # White child of immigrant(s)	4.632 -4.728
Single-parent household # Living in a non-extended household # Latina/o native-born	-2.125 -1.822
Single-parent household # Living in a non-extended household # Latina/o child of immigrant(s)	-3.270** -1.196
Single-parent household # Living with vertical relative(s) # White native-born	-2.239 -1.4

Table 3.5 Continued

Single-parent household # Living with vertical relative(s) # White child of immigrant(s)					0 (.)
Single-parent household # Living with vertical relative(s) # Latina/o native-born					-1.724 -2.272
Single-parent household # Living with vertical relative(s) # Latina/o child of immigrant(s)					-5.235* -2.439
Single-parent household # Living with horizontal relative(s) # White native-born					-6.089** -2.272
Single-parent household # Living with horizontal relative(s) # White child of immigrant(s)					0 (.)
Single-parent household # Living with horizontal relative(s) # Latina/o native-born					-7.727*** -1.897
Single-parent household # Living with horizontal relative(s) # Latina/o child of immigrant(s)					-9.269*** -1.944
Single-parent household # Living with both vertical and horizontal relative(s) # White native-born					-4.426 -2.665
Single-parent household # Living with both vertical and horizontal relative(s) # White child of immigrant(s)					-8.275*** -1.044
Single-parent household # Living with both vertical and horizontal relative(s) # Latina/o native-born					-2.898 -2.837
Single-parent household # Living with both vertical and horizontal relative(s) # Latina/o child of immigrant(s)					-3.276 -3.699
Constant	69.80***	48.99***	49.58***	49.38***	49.70***
	-0.474	-1.826	-1.716	-1.707	-1.601
Observations	5015	5015	5015	5015	5015

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Standard errors in parentheses

Chapter 4

Household Disruptions and the Academic Performance of Latina/o Children of Immigrant Parents

Children in the United States are increasingly living with only one parent in the home and with extended relatives like grandparents, aunts and uncles, motivating a focus on their implications for children's academic performance (Augustine and Raley 2013, Foster and Kalil 2007, Sun and Li 2011). Children living with one parent typically perform lower than children living with two parents while the association between living with an extended relative can depend on the outcome, type of relative, and age groups (Kang and Cohen 2017, Mollborn, Fomby and Dennis 2012). However, families are not static. Children can experience household disruptions when a parent or extended relative exits or enters the household (Ackerman et al. 1999, Osborne and Mclanahan 2007, Smith, Crosnoe and Cavanagh 2017, Ziol-Guest and McKenna 2014). Disruptions are associated with children's short and long-term academic outcomes, mainly placing children at an academic disadvantage (Amato 2010, McCoy and Cybele Raver 2014). Yet, relative stability, even if a child lives with a single parent or with extended relatives, may benefit a child's academic performance compared to children who experience one or more household disruptions (Mollborn, Fomby and Dennis 2012, Sun and Li 2013). However, we understand relatively little about how disruptions shape the academic performance of children by race/ethnicity and immigrant generation (Karberg et al. 2017).

Latina/o children of immigrant parents are often framed as protected from experiencing single parenthood or disruptions involving extended relatives (Fuller-Thomson and Minkler 2007, Goodman and Silverstein 2006). Yet, families are complex and dynamic, members in households can enter or exit for a range of reasons, including separation, divorce, or residential

mobility (Adam 2004, Lee and McLanahan 2015, Mollborn, Fomby and Dennis 2012). Claims about static Latina/o immigrant households are often unsubstantiated since they rely on untested cultural explanations (Mendoza et al. 2017) or lack analyses of the association between stable or disrupted households and children's academic performance. For instance, Latina/o children of immigrant parents who belong to a two-parent household and experience a disruption may have a more difficult time adjusting because of a lack of support networks and fewer access to materials resources compared to children of native-born parents (Riina, Lippert and Brooks-Gunn 2016, Santhiveeran 2010, Turney and Kao 2009). However, it is unclear if Latina/o children of immigrant parents who experience disruptions from an extended household are worse off than their peers with native-born parents.

Resource deprivation theories outline why children living with a single parent or with extended relatives tend to perform lower compared to peers living in two-parent non-extended households (Amato 2010, McLanahan, Tach and Schneider 2013, Wagmiller et al. 2010); while instability-stress theories outline how household disruptions shape the academic performance of children over time (Brown, Stykes and Manning 2016, Fomby and Cherlin 2016, Sun and Li 2011). For instance, children in single-parent households tend to have lower access to material resources and perform lower than peers in two-parent households (Amato 2010, McLanahan, Tach and Schneider 2013). Children who experience disruptions can perform lower compared to children who remain in a two-parent household (Sun and Li 2011). However, children who remain in a single-parent household may be better off academically compared to children who experience multiple transitions in and out of a two-parent household (Fomby and Cherlin 2016). Similarly, children in extended households might be in constrained socioeconomic positions, either because their parent helps extended relatives economically or because their parent cannot

afford housing without co-residing with relatives (Reyes 2018). Yet, less is known about the long-term association of household disruptions involving the exits or entries of extended relatives on children's academic performance, though some studies point to a negative association between the exit of an extended relative and children's academic performance (Mollborn, Fomby and Dennis 2012).

To fill a gap in understanding the long-term role of household disruptions among Latina/o children of immigrant parents, I draw on data from the Early Childhood Longitudinal Study, 2011 cohort - a nationally representative sample of children from kindergarten through fifth grade with information on their household composition and changes to household composition in each grade (Tourangeau et al. 2015). I ask the following research questions:

1) How are household disruptions between kindergarten and fourth grade involving a parent or an extended relative associated with children's academic performance in the fourth grade?
2) How does the association between household disruptions occurring from kindergarten and fourth grade and academic performance in fourth grade change when comparing Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents?

I fill a gap in understanding the association between disruptions when children begin kindergarten in a single-parent or an extended household and children's academic performance in fourth grade. Further, I also distinguish between parent and extended relative disruptions and assess their relative impact on children's academic performance. Lastly, I contribute to exploring how these associations may be altered when accounting for a child's race/ethnicity and immigrant generation. Analyzing household disruptions among Latina/o children of immigrant

parents provides a foundation to continue exploring how household disruptions are consequential for children's short and long-term academic performance.

Household Disruptions and Children's Academic Performance

Instability-stress theories outline how household transitions can introduce socioemotional stress in children's lives and negatively shape their academic performance (Brown, Stykes and Manning 2016, Osborne and Mclanahan 2007). A disruption can have material consequences, with a child having reduced access to resources (Fomby and Cherlin 2016), experiencing one or more residential moves to secure housing (Fowler, Henry and Marcal 2015), or co-residence with extended relatives (Elliott et al. 2017, Goodman and Silverstein 2006). However, household disruptions can introduce stress and present socioemotional harm which can also negative shape a child's academic outcomes (Martin-West 2019). Yet, this transition can be detrimental since it involves an adjustment period and a child may have a strained relationships with the new parent (Osborne and Mclanahan 2007). Further, disruptions resulting in a single-parent household can be harmful if they strain parent-child relationships, even if a non-resident parent has a significant presence in a child's life (Kane, Nelson and Edin 2015).

Instability can also have a positive impact on a child's wellbeing or academic performance if it results in a more nurturing environment. For instance, Sun and Li (2013) found that instability may have positive associations with children's cognitive functions if a child gained an attachment person who helped improve their cognitive development through direct interactions. Though their focus is on pre-kindergarten children, they demonstrate that instability may not necessarily be associated with negative consequences for children's wellbeing or outcomes during early childhood. Further, a problematic or abusive parent might exit the household and result in positive outcomes if a child shifts from living in a stressful environment

to a positive environment (Osborne and Mclanahan 2007). Since household disruptions also involve the entry of a second parent, children who live with a single parent can experience a transition to a two-parent household which can improve their academic performance. For example, Wagmiller et al. (2010) find that when mothers remarry, their children can experience educational gains because a second parent in the household can provide direct emotional and material support. However, Lee and McLanahan (2015) find that transitions out of a two-parent family are more detrimental than transitions into a two-parent family. Similarly, if parents separate but a non-resident parent maintains involvement, they can provide care and financial support which may also be associated with positive educational performance for children (Kane, Nelson and Edin 2015).

Since we know little about the long-term consequences of children living with extended relatives, we do not well understand the consequences of disruptions involving the exits or entries of extended relatives. However, researchers suggest that the entries or exits of extended relatives can also be consequential for children's academic outcomes (Mollborn, Fomby and Dennis 2012). For instance, if a grandparent provides daily care but leaves the household, then a child might not do as well academically (Monserud and Elder 2011, Mutchler and Baker 2009, Pilkauskas 2014). Similarly, disruptions could be negative if a horizontal relative exits or enters the household, resulting in stress with negative implications for children's academic performance (Mollborn, Fomby and Dennis 2012). Disruptions involving a parent may be more consequential for children's academic performance; however, disruptions involving extended relatives may nevertheless have implications.

Latina/o Children of Immigrant Parents and Household Disruptions

The long-term consequences of experiencing household disruptions might vary depending on a child's race/ethnicity and immigrant generation (Mollborn, Fomby and Dennis 2012). For instance, Osborne and Mclanahan (2007) found that compared to White children, children of color born to unmarried parents experienced more parent disruptions than children born to married parents, linking these changes to increased behavioral problems. Further, Latina/o children of immigrant parents and Latina/o children of native-born parents tend to have fewer access to social support and support services in the aftermath of a parent's separation (Hummer and Hamilton 2010, Lee and McLanahan 2015, Raley, Sweeney and Wondra 2015). Therefore, disruptions may be more harmful for Latina/o children of immigrant parents compared to White children of native-born parents if they do not have access to support systems to successfully adjust following a separation (Hummer and Hamilton 2010). Notably, Latina/o children of immigrant parents belong to households with married parents at higher rates (Amato 2010, Brown, Van Hook and Glick 2008, Magnuson and Berger 2009). Therefore, disruption events involving the exit of a parent may be more detrimental since they occur in a household with a lower likelihood of experiencing a parental disruption compared to Latina/o children of native-born parents or White children of native-born parents (Osborne and Mclanahan 2007).

Extended households among Latina/o children of immigrant parents are often depicted as stable and with strong reciprocal relationships between household members (Foster and Kalil 2007, Fuller-Thomson and Minkler 2007, Mendoza et al. 2017). However, this may not be the case if immigrant extended household have members who are co-residing before living independently or out of necessity (Angel and Tienda 1982, Kang and Cohen 2017). These households may be extended temporarily, resulting in a child experiencing a disruption once an

extended relative exits the household. However, disruptions could also result out of conflict or because members are no longer able to financially support to one another, pushing relatives out of the household (Reyes 2018). Since Latina/o children of immigrant parents belong to extended households at higher rates (Landale, Thomas and Van Hook 2011), they may be at a greater risk of experiencing disruptions with a negative impact on their academic performance compared to children of native-born parents.

The impact of disruptions on Latina/o children of immigrant parents academic performance may depend on which type of relative enters or exits the household. For instance, the exit of a grandparent may be detrimental for a child's academic performance if the grandparent provided care after school or engaged in activities like helping with homework (Dunifon and Bajracharya 2012). Yet, if a horizontal relative exits the household, this could signal economic mobility and may have positive implications for children's academic performance (Cross 2018, Reyes 2018). In contrast, relative stability could also be harmful for children's academic performance if they remain in an extended household that is not conducive for their academic performance.

HYPOTHESES

Instability-stress theories outline that children who experience one or more household disruptions may perform worse academically compared to children who experience relative household stability. Resource deprivation theories suggest that children who remain in a single-parent household or in an extended household may have less access to material resources, which in turn have long-term implications for their academic performance. However, the association between living with a single-parent or with different extended relatives and the role of disruptions from these households may vary depending on a child's race/ethnicity and immigrant

generations. Disruptions may be more detrimental among Latina/o children of immigrant parents if their socioeconomic status reflects less access to safety nets or social support following disruptions. Therefore, I hypothesize:

H1: Children who experience household disruptions between kindergarten and fourth grade will perform lower in fourth grade math and reading scores compared to children who remain in non-disrupted two-parent households or in non-disrupted non-extended households.

H2: Latina/o children of immigrant parents who experience household disruptions between kindergarten and fourth grade will perform the lowest in fourth grade math and reading compared to Latina/o children of native-born parents or White children of native-born parents.

METHODS

The ECLS-K:2011 dataset is a National Center for Education Statistics (NCES) nationally representative sample of children enrolled in more than one thousand schools across the United States, beginning in kindergarten over the 2010-2011 academic year and ending in 5th grade (Tourangeau et al. 2015). The ECSL-K:2011 is ideal for analyses on household disruptions since it includes a substantive number of Latina/o children of immigrant parents and information on all household members. Each wave includes a household roster and captures changes in household composition, including parents and extended relatives who enter or exit the household.

Family Household Composition

I derived single parenthood measures from household rosters including all members in the home and NCES designated parent roles (Tourangeau et al. 2015). Although previous research has considered cohabiting or stepparent families (Brown, Van Hook and Glick 2008), there were too few Latina/o immigrant cohabiting or stepparent families in the data to include in analyses. Therefore, I consider all cohabiting or step-parent families as two-parent families. Two-parent families are the reference group.

I captured membership in extended households using four types: non-extended, vertical (one or more grandparent), horizontal (aunt(s), uncle(s), or other extended relatives), and both vertical and horizontal. In the ECLS-K:2011, each person in a household is assigned a unique roster number. Adult survey respondents identified the relationship to the focal child for all enumerated people. If at least one person is classified as a vertical member, the household is a vertically extended household. Similarly, with at least one horizontal member, the household is considered horizontally extended. Household with both a horizontal and vertical relative have at least one of each type of member. Given my scope, I considered children who lived with other adult non-relatives to live in non-extended households but controlled for non-relatives in analyses.

Parent Disruptions

I captured parent disruptions with three variables and assessed the number of parents a child lives with from kindergarten through fourth grade. I considered the number of parents a child lives with at the start of kindergarten and then assessed whether this changed from kindergarten through the fourth grade. Children who consistently lived with a single parent or with two parents belonged to non-disrupted single-parent or two-parent households. Though one

disruption is most common, I also distinguished between children who experience more than one disruption. For instance, a child who lives with two parents in the spring of kindergarten, a single parent in the spring of second grade, and again two parents in the spring of third grade, experienced two disruptions. Therefore, I rely on three variables, one capturing non-disrupted households, another for households that experience one disruption, and a third capturing households that experience more than one disruption.

Extended Relative Disruptions

I capture stability and disruptions from extended households by analyzing the type of household a child belongs to in the spring of kindergarten and changes from kindergarten through fourth grade. Overall, children transitioning from one type of extended household to another (for example, from a vertical household to a horizontal household) were relatively uncommon, therefore I focused on overall stability and assessed start and end points. I only capture one or more transitions because transitions were overall less frequent compared to parent transitions.

Race/Ethnicity and Immigrant Generation

I identified Latina/o children and White children in immigrant families with the nativity of parent(s) in the home using fall and spring of kindergarten measures. I used a parent nativity variable and a child's race/ethnicity to create groupings: Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents. These groupings do not include children who are multiracial. I combined 1.5th generation and 2nd generation children of immigrant parents since both are socialized in similar contexts at this age (Portes and Rumbaut 2014). Thus, cases for Latina/o children of native-born parents is n = 821, n

= 918 for Latina/o children of immigrant parents, and n = 3942 for White children of native-born parents.

Control Variables

I control for socioeconomic status by including household income captured in the spring of third grade and the interviewed parent's level of education in the spring of kindergarten. Though the ECLS-K:2011 includes SES composites, data to create a composite was not captured in every grade (Tourangeau et al. 2015). Therefore, I rely on these two measures since parent levels of education do not change substantively from one wave to the next. I also control for parent's educational expectations for their children, measured in kindergarten, which captured the highest level of education the parent expects their child to obtain, ranging from less than high school to beyond a master's degree. To account for other people in the household, I also control for the presence of non-extended relatives and the number of siblings. These are adults living in the child's household with no kin relationship to the child and no romantic relationship to a parent. I omit accounting for other minors related or unrelated to the focal child since these household members do not account for a substantive number of cases and are beyond my focus. Finally, I control for a child's gender and their primary language at home during the spring of kindergarten since it may be associated with fourth grade reading scores.

Analytic Strategy

I rely on t-tests to analyze significant differences between how frequently children experience disruptions from kindergarten through the fourth grade. I also use t-tests to assess differences in test scores in the fourth grade between children who lived in non-disrupted households and disrupted households between kindergarten and fourth grade.

To assess the role of stability and disruptions on children's academic performance from kindergarten through fourth grade, I rely on three models. Model 1 assessed the association between children remaining in two-parent and non-extended households alongside living in disrupted households with either one or two parents and with or without extended relatives. In Model 2, I added controls, including race/ethnicity and immigrant generation, to assess how these associations are altered. Lastly, in Model 3 I included interaction terms between race/ethnicity, immigrant generation, and stable or disrupted households to highlight comparisons between Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents.

I used least squares regression models to assess the relationship between changes in household composition and children's academic performance in the spring of fourth grade. Though some Latina/o children of immigrant parents were administered a reading test in Spanish early on in kindergarten or first grade, by fourth grade all children were administered a test in English. Therefore, fourth grade scores provide a comparison of academic performance between children of immigrant parents and children of native-born parents. I include weights in all models to maintain representativeness of children enrolled in kindergarten in the 2010-2011 academic year.

RESULTS

Descriptive Statistics

Table 4.1 includes descriptive statistics by variable. Table 4.2 indicates that White children of native-born parents belong to non-disrupted two-parent households at higher rates compared to Latina/o children of native-born parents but at similar rates compared to Latina/o children of immigrant parents. Further, 14.3 % of Latina/o children of native-born parents

experienced one disruption from living with two parents at higher rates compared to 8.3 % of Latina/o children of immigrant parents and 9% of White children of native-born parents. 9.6% of Latina/o children of native-born parents experienced multiple disruptions from living with two parents at higher rates compared to Latina/o children of immigrant parents and White children of native-born parents, with less than 6% experiencing multiple disruptions. Latina/o children of native-born parents and Latina/o children of immigrant parents start kindergarten in a single-parent household and remain in a single-parent household at higher rates compared to White children of native-born parents, around 11% compared to only 7.5% of White children of native-born parents. Further, 14.3% of Latina/o children of native-born parents who being kindergarten in a single-parent household experience one disruption at a higher rate than Latina/o children of immigrant parents or White children of native-born parents. Lastly, 6% of Latina/o children of native-born parents who begin kindergarten in a single-parent household experience more than one disruption at a higher rate compared to Latina/o children of immigrant parents or White children of native-born parents. This nearly double compared to White children of native-born parents. In all, these differences suggest that Latina/o children of immigrant parents experience both stability and disruption, with stark differences based on a child's race/ethnicity and immigrant generation.

(Table 4.1 about here.)

(Table 4.2 about here.)

Table 4.2 also demonstrates that 5.3% of Latina/o children of native-born parents live in a non-disrupted vertical household compared to 4.5% of Latina/o children of immigrant parents and 2.3% of White children of native-born parents. 4.7 % of Latina/o children of immigrant parents live in a non-disrupted horizontal household compared to only 1.8% of Latina/o children

of native-born parents and .6% of White children of native-born parents. Latina/o children of immigrant parents live in a non-disrupted vertical and horizontal household at higher rates compared to Latina/o children of native-born parents or White children of native-born parents. However, this is a relatively uncommon household type with only 2.3% of Latina/o children of immigrant parents remaining in this type. Yet, over ten percent of Latina/o children of immigrant parents who live in a non-extended household belong to an extended household between kindergarten and fourth grade. Latina/o children of native-born parents who belong to a vertical household will experience one or more disruptions at rates comparable to Latina/o children of immigrant parents and White children of native-born parents. However, nearly 10% of Latina/o children of immigrant parents who begin kindergarten in a horizontally extended household experience one or more disruptions compared to Latina/o children of native-born parents or White children of native-born parents. Lastly, Latina/o children of native-born parents who begin kindergarten in a vertically and horizontally extended household experience one or more disruptions at higher rates compared to 2.1% of Latina/o children of immigrant parents and only .5% of White children of native-born parents.

Table 4.3 demonstrates the association of experiencing disruptions between kindergarten and fourth grade and math and reading scores in the fourth grade. Across the board, Latina/o children of immigrant parents tend to perform the lowest when comparing within the same type of household, either non-disrupted or disrupted. However, significant differences emerge in math and reading scores primarily when comparing Latina/o children of immigrant parents who experience one or more disruptions from a single or two-parent household to White children of native-born parents. This suggests that Latina/o children of immigrant parents who do experience disruptions also score lower in math and reading compared to their peers with native-born

parents who also experience disruptions. In terms of disruptions from extended households, there were fewer differences. However, Latina/o children of immigrant parents scored significantly lower in both math and reading, with more significant differences in math scores over reading scores compared to White children of native-born parents. In all, parsing out Latina/o children by immigrant generation revealed some differences. Disruptions do not present identical associations with children's academic performance.

(Table 4.3 about here.)

Disrupted Households (Model 1)

Math Scores

Model 1 in Table 4.4 demonstrates the association between non-disrupted and disrupted households for math scores in fourth grade. Children in a non-disrupted single-parent household score lower in math by 3.94 points ($p < .001$) compared to children who remain in a two-parent non-disrupted household. Children who begin kindergarten in a two-parent household and experience one disruption score significantly 2.2 points lower compared to children in a non-disrupted two-parent household, however the difference is non-significant. Further, children who begin in a two-parent household and experience more than one disruption perform higher but with a non-significant difference compared to children who remain in a non-disrupted two-parent household. Lastly, children who begin in a single-parent household and experience one disruption score significantly 4.5 points ($p < .05$) lower compared to children who remain in a non-disrupted two-parent household. However, children who experience more than one disruption perform higher, but this is non-significant.

(Table 4.4 about here.)

Model 1 indicates that children in a non-disrupted vertical household score 1.6 points lower compared to children who remain in a non-disrupted non-extended household, however the difference in scores is non-significant. Children in a non-disrupted horizontal household score significantly 7.8 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Further, children who remain in a household with both vertical and horizontal relatives score the lowest by 8.7 points ($p < .01$) compared to children who remain in a non-disrupted non-extended household. Disruptions from an extended household in kindergarten through fourth grade are all associated with lower math scores. Children who begin in a non-extended household and experience a disruption score significantly 3.8 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Children who begin in a vertical household and experience one or more disruptions score significantly 2.7 points ($p < .05$) lower compared to children who remain in a non-disrupted non-extended household. Similarly, children who begin in a horizontal household and experience one or more disruptions score significantly 6.3 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Lastly, children who begin in a vertical and horizontal household and experience one or more disruptions score significantly 5.8 points ($p < .05$) lower compared to children who remain in a non-disrupted non-extended household.

Reading Scores

Model 1 in Table 4.5 demonstrates the association between non-disrupted and disrupted households for math scores in fourth grade. Children in a non-disrupted single-parent household score lower in reading by 2.4 points ($p < .01$) compared to children who remain in a two-parent non-disrupted household. Children who begin kindergarten in a two-parent household and

experience one disruption score .8 points lower compared to children in a non-disrupted two-parent household, however the difference is non-significant. Children who begin in a two-parent household and experience more than one disruption score 1.7 points higher compared to children who remain in a two-parent household, also with a non-significant difference. Lastly, children who begin in a single-parent household and experience one disruption, score significantly 3.9 points ($p < .01$) lower compared to children who remain in a non-disrupted two-parent household. However, this is non-significant for children who begin in a single-parent household and experience more than one disruption but perform higher in math.

(Table 4.5 about here.)

Model 1 indicates that children in a non-disrupted vertical household score 2.3 points lower compared to children who remain in a non-disrupted non-extended household; however, the difference is non-significant. Further, children who remain in a non-disrupted horizontal household score 7.7 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Children in a non-disrupted vertical and horizontal household score significantly 9.6 points ($p < .01$) lower compared to children who remain in a non-disrupted non-extended household. Children who begin in a non-extended household and experience a disruption score significantly 3.5 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Children who begin in a vertical household and experience one or more disruption score 2.4 points lower compared to children in a non-disrupted non-extended household, however the difference is non-significant. Further, children who begin in a horizontal household and experience one or more disruptions score significantly 5.7 points ($p < .001$) lower compared to children who remain in a non-disrupted non-extended household. Lastly, children who begin in a vertical and horizontal household and experience one

or more disruptions score significantly 5.4 points ($p < .01$) lower compared to children who remain in a non-disrupted non-extended household.

Disrupted Households and Controls (Model 2)

Math Scores

Model 2 in Table 4.4 indicates the association between math scores and children living in non-disrupted or disrupted household with the inclusion of control variables. Children who remain in a non-disrupted single-parent household score .9 points lower compared to children who remain in a non-disrupted two-parent household; however, the difference is non-significant. The same is true for children who experience one or more than one disruption and begin kindergarten in a single-parent household. There are no significant differences, regardless if a child remains in a single or two-parent household or experiences disruptions from either type of household.

Model 2 in Table 4.4 indicates the association between living in non-disrupted and disrupted extended households with the addition of controls, children in a non-disrupted non-extended household are the reference group. Unlike in Model 1, the negative association between living in a non-disrupted extended household and experiencing a disruption from a non-extended household disappears. Regardless of whether children remain in a non-extended household, all types of extended households, or experience disruptions from a non-extended or extended household, they do not perform significantly differently compared to children who remain in a non-extended household from kindergarten through fourth grade.

Reading Scores

Model 2 in Table 4.5 indicates the association with reading scores between children who remain in non-disrupted household and experience disruptions. Coefficients capturing stability and disruptions are non-significant compared to Model 1. Therefore, regardless of whether children remain in a single-parent or two-parent household or experience disruptions, they do not perform significantly worse or better than children who remain in a two-parent non-extended household.

Model 2 in Table 4.5 indicates the association with reading scores between children who remain in non-disrupted household and experience disruptions. Across the board, children who either remain in a non-disrupted extended household or experience disruptions from an extended household do not perform significantly differently compared to children who remain in a non-disrupted non-extended household. The only exception is children who remain in a vertical and horizontal household, since these children score significantly 9.6 points ($p < .05$) lower compared to children who remain in a non-disrupted non-extended household.

Disrupted Households and Interactions (Model 3)

Math Scores

Model 3 in Table 4.4 indicates the association between non-disrupted and disrupted households and math scores with interactions between a child's race/ethnicity and immigrant generation. Latina/o children of native-born parents who remain in a non-disrupted two-parent household score lower in mathematics, however the difference is non-significant compared to White children of native-born parents who remain in a non-disrupted two-parent household. In contrast, Latina/o children of immigrant parents who remain in a non-disrupted two-parent household score significantly lower by 4.5 points ($p < .05$) compared to White children of native-

born parents who remain in a two-parent household. There is also a non-significant difference for Latina/o children of native-born parents and White children of native-born parents who remain in a non-disrupted single-parent household. However, Latina/o children of immigrant parents who remain in a non-disrupted single-parent household score significantly lower by 8.8 points ($p <$ .01) compared to White children of native-born parents who remain in a non-disrupted two-parent household. Latina/o children of native-born parents and White children of native-born parents who experience one disruption from a two-parent household score no differently compared to White children of native-born parents who remain in a two-parent household. Yet, Latina/o children of immigrant parents who experience one disruption from a two-parent household score significantly lower by 13.4 points ($p < .05$). There are non-significant differences for Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents who experience more than one disruption from a single-parent household compared to White children of native-born parents who remain in a non-disrupted two-parent household.

Model 3 in Table 4.4 indicates the association between living in non-disrupted or disrupted extended household and children's math scores. There are no significant differences between Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents who remain in non-disrupted extended households compared to White children of native-born parents who remain in non-disrupted non-extended households. The only exception is Latina/o children of immigrant parents who remain in a non-disrupted vertical household since they score significantly 9.9 points ($p < .001$) higher. In terms of disruptions, there are no significant differences for children who begin kindergarten in all types of extended households and experience one or more disruptions.

Reading Scores

Model 3 in Table 4.5 indicates the association between non-disrupted and disrupted households and reading scores with interactions between a child's race/ethnicity and immigrant generation. Unlike for math scores, there are no significant differences between children who remain in a single-parent household, a two-parent household, or experience disruptions from a single-parent or two-parent household compared to White children of native-born parents who remain in a two-parent household or a non-disrupted non-extended household. This is consistent with Model 2 and indicates that race/ethnicity and immigrant generation do not place children at a significant disadvantage when they remain in a single-parent or two-parent household or experience one or more disruptions. However, since there were differences in math scores, the association between stability and disruptions may depend on the outcome of interest.

Similar, to math scores there are few significant differences between children who remain in different types of extended households or experience disruptions. However, White children of native-born parents who remain in a non-disrupted vertical and horizontal household significantly score 12.6 points ($p < .05$) lower compared to White children of native-born parents who remain in a non-disrupted non-extended household.

DISCUSSION

Instability-stress theories provide a backdrop to understand how disruptions involving the exits or entries of parents or extended relatives shape the academic performance of children (Lee and McLanahan 2015, Sun and Li 2011). Children who belong to single-parent or extended households may have fewer access to resources which in turn negatively shape their long-term academic performance (McLanahan and Percheski 2008, Osborne and Mclanahan 2007). However, children who belong to a single-parent household or an extended household may also

be more likely to experience household disruptions, also associated with long-term academic performance (Mollborn, Fomby and Dennis 2012, Sun and Li 2013). I focus on Latina/o children of immigrant parents since race/ethnicity and immigrant generation might alter the relationship between household disruptions and academic performance. Overall, I found limited support for an instability-stress framework since the relationship between experiencing household disruptions and academic performance depended on the outcome of interest, a child's race/ethnicity, and immigrant generation. However, taking race/ethnicity and immigrant generation into account was nevertheless important – the association between experiencing disruptions was different for Latina/o children of immigrant parents compared to Latina/o children of native-born parents or White children of native-born parents.

I found partial support for Hypotheses 1 and 2 in Model 1, since only children who experienced a disruption from a single-parent household performed significantly lower in math and reading scores compared to children who remained in a non-disrupted two-parent household. However, this was not the case for children who began kindergarten in a two-parent household and experienced one disruption. These children performed no worse than children who remained in a two-parent household. Notably, experiencing more than one disruption was not significantly associated with academic disadvantage. This is surprising since I expected multiple disruptions to be associated with negative academic performance, in line with previous studies on the detrimental role of disruptions (Fomby, Mollborn and Sennott 2010, Mollborn, Fomby and Dennis 2012). However, children who experience one disruption may face harsher consequences than children who experience multiple disruptions with a parent rejoining the household or a stepparent joining the household at a later point. For instance, children who begin in a single-

parent household and have a stepparent join may perform worse than children who remain in a single-parent household.

In terms of living with an extended relative, I found partial support for Hypothesis 1. Children who live with vertical, horizontal, or a combination of vertical and horizontal relatives and experience one or more disruptions perform significantly lower compared to children who remain in a non-extended household. Notably, children who remained in all types of extended households also performed lower than children who remained in a non-extended household. These associations were clear compared to parent disruptions. However, they only offered partial explanations since they lacked additional factors that may be associated with academic performance.

The addition of controls in Model 2 revealed how the association between household disruptions and children's academic performance changed. I found no significant differences in math or reading scores when accounting for whether children experienced disruptions or remained in a one or two-parent household. These association were consistent even when I excluded Latina/o children of immigrant parents, Latina/o children of native-born parents, and White children of native-born parents from Model 2. Associations were also consistent without measures of household income or parent's level of education. Since I found some differences in Model 3, decoupling race/ethnicity and immigrant generation in Model 1 and 2 omitted nuances between the role of disruptions and children's academic performance.

I expected children in all types of extended households who experienced one or more disruptions to perform lower compared to children who remained in non-extended households. Yet, the only exception was children who remained in a vertical and horizontal household, since they performed lower compared to children who remained in a non-disrupted non-extended

household. This may signify that children living with both vertical and horizontal relatives are at the greatest disadvantage when they remain in this type of extended household. We know relatively little about these households, but they may have the fewest resources available for children (Cross 2018). They may also present children with an environment that is not as conducive for their academic performance compared to children who live with either vertical or horizontal relatives or children who do not live with extended relatives.

Results from Model 3 provided some support for Hypothesis 2 since Latina/o children of immigrant parents differed from Latina/o children of native-born parents. However, disruptions were only detrimental for Latina/o children of immigrant parents and their math scores but not reading scores and only when they began kindergarten in a two-parent household. This may be since Latina/o children of immigrant parents are overall less likely to reside in a single-parent household compared to Latina/o children of native-born parents (Brown, Van Hook and Glick 2008, Landale, Thomas and Van Hook 2011). However, when disruptions from a two-parent household occur, they may be less able to adjust following the exit of a parent and suffer academically.

In terms of disruptions from an extended household, I found no support for Hypotheses 2 – regardless of whether Latina/o children remained in an extended household or experienced disruptions from an extended household when compared to White children of native-born parents who remained in a non-disrupted non-extended household. I expected disruptions, whether they involved a parent or an extended relative, to be negatively associated with children's academic performance leading up to fourth grade, consistent with literature on the potentially detrimental role of disruptions. However, the exits or entries of extended relatives may not be as consequential as the exits or entries of parents, at least for math and reading scores. Yet, I found

no support to suggest that living with extended relatives provides a long-term benefit for Latina/o children of immigrant parents, which contrasts previous studies that imply this is the case (Mendoza et al. 2017). Latina/o children of immigrant parents who remained in extended households performed no better than children who remained in non-extended households.

The ECLS-K may be limited in the amount of information available to assess the role of household disruptions on children's academic performance. Overall, most children remain in the same type of household they belong to during kindergarten. However, previous studies have used wider time frames to assess the role of disruptions. By only focusing on kindergarten through fourth grade, I may miss some variation. Relatedly, lacking information on the unique financial contributions of each adult in the household alongside designations of the head of household made it difficult to highlight why some extended household transitions are inconsequential for children's academic performance. For instance, a child who lives the home of a grandparent may have distinct experiences from a child whose grandparent exits the home. I capture either scenario as a transition and cannot differentiate their impact. More detailed information for household exits and entries would provide a fuller account of why children can sometimes be academically disadvantaged following a household disruption.

Separation among Latina/o immigrant households has been a focus of immigration research; however, little work has explored long-term consequences in comparison to children with native-born parents. Though I focused on math and reading performance, living with a single parent or with extended relatives and experiencing disruptions may have implications for other outcomes, including children's cognitive or behavioral outcomes (Kang and Cohen 2017, Mollborn, Fomby and Dennis 2012). Further, children from mixed-status immigrant families may be disproportionally impact by household disruptions, with negative implications for their

health, wellbeing, and academic performance (Hagan, Eschbach and Rodriguez 2008, Hall, Musick and Yi 2019, Yoshikawa and Kalil 2011). We need to continue drawing on longitudinal and representative data to assess the role of household disruptions on children's short and long-term academic performance. Doing so provides a lens to understand the long-term implications of children experiencing household disruptions.

Table 4.1 - Weighted Descriptive Statistics (Means and Proportions)

Variable	All children (N = 5681) M	SD	White native-born (N = 3942) M	SD	Latina/o native-born (N = 821) M	SD	Latina/o children of immigrant(s) (N = 918) M	SD
Academic Performance								
Math - 4th grade	111.32	14.47	114.16	13.45	107.40 ***	14.67	103.80 ***, +++	14.37
Reading - 4th grade	123.47	12.76	125.70	11.50	121.60 ***	12.85	116.46 ***, +++	14.11
Household Composition								
Single-parent household - K	14.60%		12.84%		19.50% ***		17.00% *	
Single-parent household - 1st grade	15.35%		13.48%		21.91% ***		16.73% +	
Single-parent household - 2nd grade	16.14%		14.43%		21.11% **		18.30% *	
Single-parent household - 3rd grade	16.69%		15.09%		22.40% **		17.79%	
Single-parent household - 4th grade	16.94%		14.94%		24.71% ***		17.73% ++	
Non-extended household - K	86.93%		91.97%		79.45% ***		74.08% ***, +	
Non-extended household - 1st grade	88.48%		92.85%		82.95% ***		76.51% ***, +	
Non-extended household - 2nd grade	88.48%		92.32%		82.94% ***		78.55% ***	
Non-extended household - 3rd grade	88.44%		91.95%		83.97% ***		78.84% ***, +	
Non-extended household - 4th grade	88.75%		92.43%		83.65% ***		79.01% ***	
Vertical household - K	5.83%		4.69%		8.98% ***		7.44% **	
Vertical household - 1st grade	5.45%		4.12%		9.07% **		7.34% ***	
Vertical household - 2nd grade	5.37%		4.15%		8.93% ***		6.90% **	
Vertical household - 3rd grade	5.95%		4.80%		9.28% ***		7.40% *	
Vertical household - 4th grade	5.61%		4.53%		8.77% **		6.98% *	
Horizontal household - K	5.05%		2.55%		5.86% **		14.03% ***, +++	
Horizontal household - 1st grade	4.03%		1.92%		4.57% **		11.76% ***, +++	
Horizontal household - 2nd grade	4.31%		2.61%		5.01% *		10.27% ***, ++	
Horizontal household - 3rd grade	3.87%		2.41%		3.16%		10.14% ***, +++	
Horizontal household - 4th grade	3.95%		2.23%		4.40% *		10.20% ***, +++	
Vertical and horizontal household - K	2.19%		0.79%		5.71% ***		4.44% ***	
Vertical and horizontal household - 1st grade	2.04%		1.11%		3.41% **		4.40% ***	
Vertical and horizontal household - 2nd grade	1.84%		0.91%		3.11% **		4.27% ***	
Vertical and horizontal household - 3rd grade	1.74%		0.83%		3.59% **		3.61% ***	
Vertical and horizontal household - 4th grade	1.69%		0.80%		3.18% **		3.81% ***	
Living with a non-relative - K	2.29%		2.05%		2.19%		3.29%	
Living with a non-relative - 1st grade	1.82%		1.49%		1.48%		3.41%	
Living with a non-relative - 2nd grade	1.98%		1.94%		1.76%		2.33%	
Living with a non-relative - 3rd grade	2.07%		2.12%		1.62%		2.29%	
Living with a non-relative - 4th grade	1.99%		2.16%		1.34%		1.96%	
Number of siblings in the home - K	1.55	1.08	1.48	1.03	1.64 **	1.12	1.76 ***	1.15
Number of siblings in the home - 1st grade	1.58	1.09	1.50	1.05	1.68 **	1.16	1.80 ***	1.15
Number of siblings in the home - 2nd grade	1.61	1.09	1.52	1.05	1.73 ***	1.14	1.85 ***	1.15
Number of siblings in the home - 3rd grade	1.62	1.09	1.52	1.05	1.75 ***	1.12	1.88 ***	1.14
Number of siblings in the home - 4th grade	1.62	1.09	1.53	1.05	1.74 ***	1.14	1.90 ***, +	1.14
Controls								
Household income category - 3rd grade	11.46	5.29	13.13	4.73	10.18 ***	5.03	6.14 ***, +++	3.46
Gender (female)	48.37%		48.09%		49.29%		48.65%	
Language at home - K								
Non-English Language	17.03%		0.03%		13.09% ***		86.86% ***, +++	
English Language	81.86%		99.97%		82.61% ***		10.61% ***, +++	
Can't choose primary, or two used equally	1.11%		0.00%		4.30% ***		2.53% ***	
Expected Degree - K								
Complete 4 or 5-year university	51%		55%		45% *		34% ***,++	
Parent Educational Attainment - K								
Bachelor's Degree	22%		28%		14% ***		5% ***, +++	

*** p<0.001, ** p<0.01, * p<0.05 (White native-born children as the reference group)
+++ p<0.001, ++ p<0.01, + p<0.05 (Latina/o native-born children compared to Latina/o children of immigrant(s))

Table 4.2 - Household Disruptions from K to 4th Grade by Race/Ethnicity and Immigrant Generation

	All Children	White native-born (reference)	Latina/o native-born	Latina/o children of immigrant(s)
Non-disrupted two-parent	75.7%	78.1%	66.2% ***	74.7%
Non-disrupted single-parent	8.8%	7.5%	11.3% *	11.2% **
Disrupted two-parent once	9.7%	9.0%	14.3% *	8.3%
Disrupted two-parent multiple	6.3%	5.9%	9.6% *	4.8%
Disrupted single-parent once	5.8%	5.3%	8.2%	5.8%
Disrupted single-parent multiple	4.2%	3.7%	6.4% *	4.1%
Non-disrupted vertical	3.2%	2.3%	5.3% **	4.5% **
Non-disrupted horizontal	1.5%	0.6%	1.8%	4.7% ***
Non-disrupted vertical and horizontal	0.8%	0.3%	1.6% *	2.3% ***
Disrupted non-extended	7.2%	6.3%	7.7%	10.2% **
Disrupted vertical	2.7%	2.4%	3.7%	3.0%
Disrupted horizontal	3.5%	1.9%	4.0% *	9.3% ***
Disrupted vertical and horizontal	1.3%	0.5%	4.1% ***	2.1% **

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 4.3 - Disruptions from K-4th Grade and Children's Math and Reading Scores in 4th Grade

Variables	Math Scores All Children	White native-born (reference)	Latina/o native-born	Latina/o children of immigrant(s)	Reading Scores All Children	White native-born (reference)	Latina/o native-born	Latina/o children of immigrant(s)
Non-disrupted two-parent	112.1	114.7	108.1 ***	104.8 ***	124.0	126.1	121.7 ***	117.1 ***
Non-disrupted single-parent	107.1	111.2	102.7 ***	100.3 ***	120.5	122.9	119.7	114.8 ***
Disrupted two-parent once	111.0	113.7	109.2 **	102.5 ***	123.8	125.8	123.6	115.6 ***
Disrupted two-parent multiple	111.8	114.0	109.7 *	105.5 ***	124.3	126.3	123.8	116.0 ***
Disrupted single-parent once	108.4	112.0	105.1 **	100.0 ***	120.9	123.4	120.0	113.2 ***
Disrupted single-parent multiple	109.1	112.5	106.1 *	101.3 ***	121.6	123.9	119.8	115.9 **
Non-disrupted vertical	109.8	111.3	107.5	109.3	121.5	123.4	120.6	118.7
Non-disrupted horizontal	104.0	109.0	106.9	100.3	116.4	120.6	119.0	113.2 *
Non-disrupted vertical and horizontal	101.7	103.2	103.6	99.7	113.6	112.8	118.3	111.1
Disrupted non-extended	108.4	111.2	107.2	102.6 ***	120.8	123.3	120.7	114.9 **
Disrupted vertical	108.6	110.7	109.5	100.9 **	121.4	122.3	124.1	115.2
Disrupted horizontal	105.7	110.2	105.8	102.2 *	118.5	120.8	121.4	115.7
Disrupted vertical and horizontal	105.3	103.1	107.6	103.4	118.3	116.8	120.3	116.2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.4 - OLS Regression for Math Scores in the Spring of Fourth Grade

Variables	Model 1	Model 2	Model 3
Non-disrupted single-parent	-3.938***	-0.922	
	-0.909	-0.996	
Disrupted two-parent once	-2.189	-0.472	
	-1.783	-1.681	
Disrupted two-parent multiple	2.568	2.686	
	-1.936	-1.996	
Disrupted single-parent once	-4.541*	0.039	
	-2.237	-2.307	
Disrupted single-parent multiple	2.614	-1.232	
	-2.556	-2.55	
Non-disrupted vertical	-1.585	1.349	
	-1.422	-1.332	
Non-disrupted horizontal	-7.775***	-0.787	
	-1.545	-1.876	
Non-disrupted mixed	-8.710**	-6.381	
	-3.039	-3.567	
Disrupted non-extended	-3.763***	-0.682	
	-1.019	-0.908	
Disrupted vertical	-2.722*	-0.553	
	-1.304	-1.048	
Disrupted horizontal	-6.272***	-2.009	
	-1.792	-2.038	
Disrupted mixed	-5.818*	0.111	
	-2.21	-2.274	
Living with non-relative(s) (Spring of 4th Grade)		2.149	1.886
		-1.837	-1.884
0. White native-born		0	
		(.)	
1. Latina/o native-born		-4.695***	
		-0.908	
2. Latina/o children of immigrant(s)		-3.629**	
		-1.325	
Household Income (Spring of 3rd Grade)		0.448***	0.460***
		-0.0858	-0.0882
Gender		-2.754***	-2.793***
		-0.449	-0.448
Number of siblings in the home (Spring 4th Grade)		-0.00322	0.0177
		-0.248	-0.246
Language at home (Spring of K)		0.503	0.618
		-1.036	-1.078
Degree expected (Spring of K)		0.672*	0.634*
		-0.297	-0.286
Parent 1's education level in fall/spring K		1.529***	1.532***
		-0.15	-0.15

Table 4.4 Continued

Non-disrupted two-parent # Latina/o native-born	-2.766
	-2.291
Non-disrupted two-parent # Latina/o children of immigrant(s)	-4.450*
	-2.152
Non-disrupted single-parent # White native-born	0.0881
	-1.058
Non-disrupted single-parent # Latina/o native-born	-4.164
	-3.857
Non-disrupted single-parent # Latina/o children of immigrant(s)	-8.836**
	-3.092
Disrupted two-parent once # White native-born	0.692
	-1.636
Disrupted two-parent once # Latina/o native-born	-0.198
	-2.916
Disrupted two-parent once # Latina/o children of immigrant(s)	-13.43*
	-5.686
Disrupted two-parent multiple # White native-born	0.886
	-2.339
Disrupted two-parent multiple # Latina/o native-born	2.27
	-2.815
Disrupted two-parent multiple # Latina/o children of immigrant(s)	9.311
	-5.302
Disrupted single-parent once # White native-born	1.156
	-2.424
Disrupted single-parent once # Latina/o native-born	-4.301
	-3.948
Disrupted single-parent once # Latina/o children of immigrant(s)	-7.964
	-7.639
Disrupted single-parent multiple # White native-born	-2.051
	-2.712
Disrupted single-parent multiple # Latina/o native-born	1.1
	-4.299
Disrupted single-parent multiple # Latina/o children of immigrant(s)	-0.977
	-8.564

Table 4.4 Continued

Non-disrupted non-extended # Latina/o native-born			-2.765
			-2.215
Non-disrupted non-extended # Latina/o children of immigrant(s)			1.832
			-2.236
Non-disrupted vertical # White native-born			0.584
			-1.8
Non-disrupted vertical # Latina/o native-born			-3.288
			-2.78
Non-disrupted vertical # Latina/o children of immigrant(s)			9.858***
			-2.412
Non-disrupted horizontal # White native-born			-2.617
			-4.871
Non-disrupted horizontal # Latina/o native-born			-1.677
			-5.665
Non-disrupted horizontal # Latina/o children of immigrant(s)			1.927
			-2.874
Non-disrupted mixed # White native-born			-10.61
			-5.595
Non-disrupted mixed # Latina/o native-born			-6.196
			-12.06
Non-disrupted mixed # Latina/o children of immigrant(s)			-0.149
			-3.418
Disrupted vertical # White native-born			-0.301
			-1.389
Disrupted vertical # Latina/o native-born			-1.048
			-2.84
Disrupted vertical # Latina/o children of immigrant(s)			-2.569
			-2.861
Disrupted horizontal # White native-born			-2.866
			-2.776
Disrupted horizontal # Latina/o native-born			-3.003
			-3.729
Disrupted horizontal # Latina/o children of immigrant(s)			0.104
			-3.015
Disrupted mixed # White native-born			-7.342
			-4.135
Disrupted mixed # Latina/o native-born			1.157
			-3.063
Disrupted mixed # Latina/o children of immigrant(s)			4.311
			-3.318
Constant	112.8***	97.50***	97.23***
	-0.364	-2.872	-3.064
Observations	5651	4880	4880

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.5 - OLS Regression for Reading Scores in the Spring of Fourth Grade

Variables	Model 1	Model 2	Model 3
Non-disrupted single-parent	-2.389**	0.162	
	-0.83	-0.971	
Disrupted two-parent once	-0.759	0.987	
	-1.164	-1.118	
Disrupted two-parent multiple	1.722	1.242	
	-1.522	-1.607	
Disrupted single-parent once	-3.894**	-0.103	
	-1.38	-1.308	
Disrupted single-parent multiple	2.539	-0.731	
	-1.72	-1.556	
Non-disrupted vertical	-2.313	0.529	
	-1.428	-1.202	
Non-disrupted horizontal	-7.725***	-1.461	
	-1.235	-1.584	
Non-disrupted mixed	-9.608**	-9.617*	
	-3.155	-3.896	
Disrupted non-extended	-3.526***	-0.706	
	-0.988	-0.882	
Disrupted vertical	-2.375	-1.279	
	-1.626	-1.642	
Disrupted horizontal	-5.711***	-2.218	
	-1.641	-1.706	
Disrupted mixed	-5.351**	-1.413	
	-2.003	-2.087	
Living with non-relative(s) (Spring of 4th Grade)		0.71	0.57
		-1.621	-1.596
0. White native-born		0	
		(.)	
1. Latina/o native-born		-1.769*	
		-0.731	
2. Latina/o children of immigrant(s)		-1.558	
		-1.142	
Household Income (Spring of 3rd Grade)		0.386***	0.395***
		-0.0781	-0.0784
Gender		1.680***	1.641***
		-0.368	-0.361
Number of siblings in the home (Spring 4th Grade)		-0.670**	-0.680**
		-0.201	-0.203
Language at home (Spring of K)		1.903*	2.059*
		-0.943	-0.962
Degree expected (Spring of K)		0.687**	0.681**
		-0.214	-0.216
Parent 1's education level in fall/spring K		1.400***	1.405***
		-0.125	-0.122

Table 4.5 Continued

Non-disrupted two-parent # Latina/o native-born	-2.686
	-1.945
Non-disrupted two-parent # Latina/o children of immigrant(s)	-1.372
	-2.428
Non-disrupted single-parent # White native-born	-0.0715
	-1.179
Non-disrupted single-parent # Latina/o native-born	0.128
	-2.952
Non-disrupted single-parent # Latina/o children of immigrant(s)	-3.467
	-3.866
Disrupted two-parent once # White native-born	1.008
	-1.143
Disrupted two-parent once # Latina/o native-born	1.007
	-2.748
Disrupted two-parent once # Latina/o children of immigrant(s)	-2.813
	-3.985
Disrupted two-parent multiple # White native-born	1.337
	-1.576
Disrupted two-parent multiple # Latina/o native-born	0.403
	-3.465
Disrupted two-parent multiple # Latina/o children of immigrant(s)	-0.735
	-3.626
Disrupted single-parent once # White native-born	0.319
	-1.442
Disrupted single-parent once # Latina/o native-born	-1.333
	-1.884
Disrupted single-parent once # Latina/o children of immigrant(s)	-4.988
	-6.631
Disrupted single-parent multiple # White native-born	-1.134
	-1.618
Disrupted single-parent multiple # Latina/o native-born	-1.223
	-1.691
Disrupted single-parent multiple # Latina/o children of immigrant(s)	1.229
	-7.153

Table 4.5 Continued

Non-disrupted non-extended # Latina/o native-born			0.189
			-1.657
Non-disrupted non-extended # Latina/o children of immigrant(s)			0.494
			-2.63
Non-disrupted vertical # White native-born			0.817
			-1.513
Non-disrupted vertical # Latina/o native-born			-1.822
			-2.242
Non-disrupted vertical # Latina/o children of immigrant(s)			5.424
			-3.659
Non-disrupted horizontal # White native-born			-0.757
			-2.745
Non-disrupted horizontal # Latina/o native-born			-3.295
			-4.32
Non-disrupted horizontal # Latina/o children of immigrant(s)			-0.601
			-3.548
Non-disrupted mixed # White native-born			-12.62*
			-5.486
Non-disrupted mixed # Latina/o native-born			-4.827
			-5.042
Non-disrupted mixed # Latina/o children of immigrant(s)			-8.724
			-7.615
Disrupted vertical # White native-born			-0.871
			-1.993
Disrupted vertical # Latina/o native-born			0.538
			-2.392
Disrupted vertical # Latina/o children of immigrant(s)			-4.118
			-4.609
Disrupted horizontal # White native-born			-3.377
			-2.329
Disrupted horizontal # Latina/o native-born			-0.328
			-2.604
Disrupted horizontal # Latina/o children of immigrant(s)			-1.267
			-2.608
Disrupted mixed # White native-born			-6.128
			-4.625
Disrupted mixed # Latina/o native-born			0.585
			-2.48
Disrupted mixed # Latina/o children of immigrant(s)			0.991
			-4.241
Constant	124.6***	106.4***	106.0***
	-0.332	-2.296	-2.556
Observations	5649	4878	4878

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Chapter 5

Conclusion

Family household composition in the United States has shifted from a large prevalence of extended households, a diminished number, and a recent increase in children living in extended households (Bengtson 2001, Cohn and Passel 2016, Pilkauskas and Cross 2018, Ruggles 2007). Simultaneously, children are spending more time in a single-parent household at one or multiple points in their childhood (Martin-West 2019, McLanahan and Percheski 2008, Sun and Li 2011). Importantly, family household composition is consequential for children's academic performance. For instance, children who live with a single parent are typically at an academic disadvantage compared to children who live with two parents (Brown 2004, Garg, Melanson and Levin 2006). Similarly, living with extended relatives like grandparents, aunts, or uncles can also shape children's academic performance (Amorim, Dunifon and Pilkauskas 2017, Monserud and Elder 2011). As a result, children are beginning schooling in a range of family contexts with implications for their short and long-term academic performance.

Yet, families are not static. Adults can exit or enter the household, resulting in household disruptions altering the number of parents or types of extended relatives in the household (Brown, Stykes and Manning 2016, Elliott et al. 2017, Fomby, Mollborn and Sennott 2010, Mollborn, Fomby and Dennis 2012). However, disruptions can also impact children's academic performance since they are often associated with heightened stress and can precede difficult adjustment periods (Adam 2004, Smith, Crosnoe and Cavanagh 2017, Ziol-Guest and McKenna 2014). For instance, when a child experiences a parent transition, there may be strained parent-child relationships and this shift in relationship quality may be associated with negative academic performance (Lee and McLanahan 2015, McLanahan, Tach and Schneider 2013).

However, there can also be material consequences following a parent's exit. For instance, a child may have fewer access to resources that translate to academic gains (Amato 2010, Foster and Kalil 2007). The exit or entry of an extended relative can also be detrimental (Mollborn, Fomby and Dennis 2012), particularly if it shifts relationships in the home or results in a redirection of resources available for a child (Kang and Cohen 2017, Pilkauskas 2014).

Previous work has explored the family household composition of Latina/o children of immigrant parents (Foster and Kalil 2007, Landale and Oropesa 2007, Landale, Thomas and Van Hook 2011); however, a gap remains in addressing family household composition and its association with academic performance. I drew on family and immigration literature to understand how the family household composition of Latina/o children of immigrant parents differs from White children of native-born parents. I first characterized factors associated with children's family household composition in chapter 2. I then analyzed the association between family household composition and children's academic performance in chapter 3. Lastly, I analyzed how changes in family household composition are associated with academic performance in chapter 4. I ensured each chapter covered the family household composition of Latina/o children of immigrant parents by focusing on the role of race/ethnicity and immigrant generation. Comparisons between Latina/o children and White children highlighted the role of race while distinguishing between children of immigrant parents and children of native-born parents highlighted the role of immigrant generation.

I present three contributions to the literature on family household composition and its consequences:

1. I assessed differences between children living in vertical, horizontal, and households with a combination of vertical and horizontal relatives.

2. I accounted for the role of race/ethnicity and immigrant generation when assessing factors shaping family household composition and the association between family household composition and academic performance.
3. I analyzed the consequences of family household composition when children begin schooling and the role of stability and household disruptions between kindergarten and fourth grade on children's fourth grade academic performance.

These chapters underscore the importance of understanding why children live with a single parent or with different types of extended relatives. Family household composition is associated with the reproduction of inequality (Amato and Patterson 2017, McLanahan and Percheski 2008, Smith, Crosnoe and Cavanagh 2017), is shaped by race/ethnicity and immigrant generation and has differing implications for academic performance based on a child's race/ethnicity and immigrant generation (Foster and Kalil 2007, Pilkauskas 2014). My work demonstrates that family household composition is not uniform and can vary depending on a child's race/ethnicity, immigrant generation, and factors like socioeconomic status. Further, family household composition can have negative implications for children's academic performance, particularly when children belong to a single-parent household or reside with both vertical and horizontal relatives. I found key differences between Latina/o children of immigrant parents, Latina/o children of native-born parents, White children of immigrant parents, and White children of native-born parents, motivating future studies on the complexity between family household composition and children's academic performance.

Family Household Composition

In chapter 2, I found that family household composition differed by race/ethnicity and immigrant generation. Latina/o children of immigrant parents are the least likely to live with a

single parent. Yet, this was not the case for Latina/o children of native-born parents. Since single-parenthood is increasingly common, it is important to recognize which factors may be contributing to cyclical inequality. Children who grow up in a single-parent household are also more likely to become single parents later in the life course (Amato and Patterson 2017). Therefore, the role of immigrant generation may only be protective temporarily and not persist from one generation to the next. Immigration scholars point to the negative consequences of incorporation from one generation to the next, including increased exposure to risk factors concerning family separation, health, and educational outcomes (Crosnoe and Turley 2011, Suárez-Orozco, Rhodes and Milburn 2009). Family household composition may be an example of a dynamic that shifts from one immigrant generation to the next with potentially negative implications.

A significant proportion of Latina/o children of immigrant parents reside with a single parent. Nearly one in five children beginning schooling in a single-parent household with rates persisting throughout elementary school. Latina/o children of immigrant parents may be disproportionally impacted by factors associated with separation, including immigration laws and policies and residing in households with fewer economic resources that place them at risk of experiencing parental separation (Golash-Boza and Hondagneu-Sotelo 2013, Gulbas et al. 2016, Hagan, Eschbach and Rodriguez 2008). For instance, Dreby (2015) argues that an increase in exclusionary immigration laws and policies can result in single mothers who care after children following a father's detention or deportation. Separation can be harmful for children in mixed-status immigrant families, particularly when a parent is detained or deported (Brabeck and Qingwen 2010, Gulbas et al. 2016, Hagan, Eschbach and Rodriguez 2008). However, immigration policies are often uninformed by the collateral consequences on the lives of adults

and their children and do not consider the emotional, psychological, and academic impacts policies have on children (Enchautegui and Menjívar 2015, Hagan, Eschbach and Rodriguez 2008, Hagan, Rodriguez and Castro 2011). Therefore, understanding factors linked with single-parenthood and its consequences can better inform immigration policies and responses to immigration-related separation.

I found that Latina/o children of native-born parents and Latina/o children of immigrant parents are more likely to live with vertical, horizontal, and a combination of vertical and horizontal extended relatives compared to White children of native-born parents. Accounting for the interaction between a child's race/ethnicity, immigrant generation, and household socioeconomic status altered the association between a child's likelihood of living with different types of extended relatives. Children who belonged to higher SES households had a significantly lower likelihood of residing with all types of extended relatives. SES captured household income, parents' level of education, and parents' occupational prestige, which suggests that children in disadvantaged households have a higher likelihood of living with extended relatives. If economic need drives the formation of extended households, it may also indicate that parents with more education and in higher paying occupations may have more options before residing with extended relatives (Angel and Tienda 1982, Kamo 2000). Conversely, extended relatives may also occupy privileged positions which do not necessitate the formation of extended households.

Notably, I found support for the link between a child living with a single parent and extended relatives (Deleire and Kalil 2002, Dunifon and Kowaleski-Jones 2007, Haxton and Harknett 2009), though this was strongest for children living with grandparents. Grandparents can supplement the absence of a second parent and provide direct assistance, care, and support to

both a parent and their child (Augustine and Raley 2013, Foster and Kalil 2007). However, single parents may also co-reside with horizontal relatives or a combination of vertical and horizontal relatives strategically or out of necessity (Angel and Tienda 1982, Reyes 2018). Parents and extended relatives in these arrangements may choose to live with one another to mediate the high costs of housing, provide temporary shelter, or engage in long-lasting reciprocal relationships. Chapter 2 fills a gap in understanding the factors behind family household composition among Latina/o children of immigrant parents and the importance of a comparative approach to refine how we explain differences in family household composition.

Family Household Composition and Academic Performance in Kindergarten

When considering all children, regardless of their race/ethnicity or immigrant generation in chapter 3, I found no definitive association between family household composition and academic performance. However, there were no positive associations with math or reading scores when a child lives with a single parent or extended relatives. When a particular arrangement is significantly and negatively associated with academic performance, the magnitude of association depended on the types of relatives in the home and the outcome. For instance, living with an extended relative was sometimes associated with math scores but not reading scores. However, children living with extended relatives generally performed lower, even children who lived with a grandparent, which is sometimes positively associated with academic performance (Pilkauskas 2014).

The role of race/ethnicity and immigrant generation revealed differences in the academic performance of Latina/o children compared to White children. For instance, Latina/o children of immigrant parents are at the greatest academic disadvantage when they live with a single parent compared to White children of native-born parents. Educational performance disparities among

children who live with a single parent are supported by resource deprivation theories. Children in these households have fewer access to materials resources that translate to gains in educational performance. However, they also belong to households which may have greater conflict between a parent and child without a second parent to mediate or provide support. However, immigrant generation is also a factor, particularly since Latina/o immigrant households have less access to social support, safety nets, and overall exhibit lower socioeconomic status (Crosnoe and Turley 2011).

Distinguishing between the types of extended relatives in the household revealed which arrangements tended to be associated with the greatest academic disadvantage. I found support for how relative socioeconomic advantage may shape whether children receive educational benefits from living with different types of extended relatives. For instance, children who live with horizontal relatives or a combination of vertical and horizontal relatives tended to be the most academically disadvantaged. Latina/o children of immigrant parents and Latina/o children of native-born parents are the most likely to reside in these households but may have the fewest access to resources that may translate to gains in educational performance. In contrast, White children of native-born parents tended to be less penalized for living with extended relatives, often with little or no impact on their academic performance.

Despite not offering children educational performance benefits, living with grandparents offered less of a negative impact on children's educational outcomes compared to living with only horizontal relatives or a combination of vertical and horizontal relatives. Horizontal relatives may not have close relationships with children or may not engage in activities that help children academically. Yet, children who live with a combination of vertical and horizontal members are in the worst position academically, which may suggest that the ties between a

horizontal relative and a child may be less consequential for a positive association with a child's academic performance. Vertical and horizontal households may have a larger number of relatives, introduce additional stress for children and between children and parents, or may result in overall less access to material resources for children if parents are financially assisting extended relatives (Glick 1999, Kang and Cohen 2017, Reyes 2018).

Notably, these findings suggest that even at the start of schooling, family household composition can have negative impacts on children's educational performance. This aligns with studies that have found negative associations between a child living with a single parent or extended relatives prior to kindergarten, including cognitive and emotional outcomes (Sun and Li 2013). Family household composition can have implications at multiple points in a child's development and warranted exploring the role of stable family household composition and household disruptions on children's educational performance.

Household Disruptions and Academic Performance in Fourth Grade

In chapter 4, I analyzed the role of household disruptions between kindergarten and fourth grade on children's fourth grade math and reading scores. Families are dynamic and changes in family household composition can correspond to a higher prevalence of children experiencing a disruption involving the exit or entrance of a parent or an extended relative (Fomby, Mollborn and Sennott 2010, Mollborn, Fomby and Dennis 2012). In turn, disruptions can be associated with the academic performance for children. Though a variety of factors are associated with household disruptions, I focused on the consequences of one or more disruptions between kindergarten and the fourth grade. Despite a focus on disruptions, few studies have explored the consequences of disruptions on the educational performance of Latina/o children of immigrant parents.

Analyzing household disruptions among Latina/o children of immigrant parents is important since stability and disruptions are often depicted at extremes. For instance, Latina/o children of immigrant parents may be at a high risk of experiencing disruptions associated with immigration laws, policies, and practices (Dreby 2012, Enchautegui and Menjívar 2015, Hagan, Eschbach and Rodriguez 2008, Hagan, Rodriguez and Castro 2011). Yet, familism perspectives depict Latina/o children of immigrant parents as belonging to tight-knit and stable households, protected from separation (Fuller-Thomson and Minkler 2007, Mendoza et al. 2017). Neither characterization is fully accurate. Children can experience disruptions for reasons aside immigration processes, including parent's divorce or separation. Similarly, stability is not solely associated with high familism and could be related to other factors, including parent characteristics, such as high educational attainment and earnings, both associated with a lower likelihood of a child experiencing instability (Amato 2010, Amato and Patterson 2017, Osborne and Mclanahan 2007).

I found that household stability and disruptions were not always associated with children's academic performance, in either a positive or negative direction. However, I found no benefits for stability or disruptions between kindergarten and fourth grade when children belonged to a single-parent or an extended household. Notably, children who remained in vertical and horizontal households performed lower than children who began kindergarten in a vertical and horizontal household but experienced one or more disruptions or children who remained in a non-extended household. This was similar to the negative association between academic performance and living in a vertical and horizontal household in kindergarten. Remaining in a vertical and horizontal household implies that these children fared the worst. These households may have fewer economic resources, higher tensions between relatives, or

impact relationships between parents and their children (Dunifon and Bajracharya 2012, Pilkauskas 2014). Vertical and horizontal households may not be as conducive for children's educational performance compared to other types of households, including vertical-only households which can sometimes be nurturing (Dunifon 2013, Sun and Li 2013). Nevertheless, it is important to recognize the educational disparities for children that remain in this household arrangement compared to children who remain in a non-extended household.

There was no clear direction for the association between disruptions or stability on children's academic performance when accounting for a child's race/ethnicity and immigrant generation. Yet, I found that Latina/o children of immigrant parents and Latina/o children of native-born parents remained in academically disadvantaged positions compared to White children of native-born parents. Remaining in single-parent or extended households and experiencing household transitions may have the harshest consequences for children already in vulnerable positions; including children who belong to households with low incomes and with parents who have less educational attainment and fewer access to well-paying jobs. In all, I found no instance where children's academic performance improved, regardless of their race/ethnicity or immigrant generation, following one or more household disruptions. Though there is no clear direction, household disruptions can be detrimental and underscore how family household composition and household disruptions can be integral for the reproduction of inequality.

Similar to chapter 3, I found that children who tend to be in disadvantaged socioeconomic positions are less likely to benefit from living with an extended relative for prolonged periods. However, I also found that White children of native-born parents did not benefit from living with an extended relative, even when that relative was a grandparent.

However, White children of native-born parents who remained in a vertical and horizontal household performed lower compared to children who remained in a non-extended household. This suggests that living with both types of extended relatives may be detrimental for Latina/o children and White children but presents the harshest consequences for Latina/o children. These children performed lower compared to White children of native-born parents. In contrast, White children of immigrant parents and White children of native-born parents were often on par academically.

Since few studies include concrete measures of academic performance, I shed light on the potentially devastating impacts of experiencing household transitions. Though there is no clear direction in the association between stability and disruptions, White children of native-born parents outperform Latina/o children of immigrant parents and Latina/o children of native-born parents across the board. Family household composition offers a partial explanation behind educational disparities but there may be other factors that contribute to a gap in children's academic performance. Extended household may offer an advantage but not to the point where they result in positive educational performance among children. Socioeconomic status, including household income and parent's level of education, are salient factors behind children's educational performance. Yet, given the connection between SES and family household composition, SES may place children in disadvantaged positions while also shaping children's academic performance.

Implications

I contribute to refining resource deprivation and instability-stress theories by analyzing the family household composition of Latina/o children of immigrant parents. Comparing Latina/o children of immigrant parents to White children of native-born parents provide a basis

to explore how family household composition differed along race/ethnicity and immigrant generation while exploring its implications for children's short and long-term academic performance. For instance, I found key differences between the likelihood of Latina/o children of immigrant parents residing in single-parent households or extended households compared to White native-born children. Latina/o children of immigrant parents lower socioeconomic status is a key factor behind a higher likelihood of living with all types of extended relatives. Yet, children who live in socioeconomically disadvantaged households may be less likely to receive benefits associated with living with extended relatives, including no or negative associations in their academic performance. Therefore, structural factors may contribute to differences in children's family household composition and their implications for academic performance.

Children who live with both vertical and horizontal relatives tend to be the most academically disadvantaged compared to children who live with two parents and no extended relatives. Lower socioeconomic status as a correlate behind children's extended household membership may partially explain why children who live with extended relatives also perform lower compared to children in non-extended households. This was true when analyzing academic performance in kindergarten and the role of stability and disruptions between kindergarten and fourth grade on children's fourth grade academic performance. Though this was the least common family household composition arrangement, Latina/o children of immigrant parents and Latina/o children of native-born parents lived in vertical and horizontal households at higher rates compared to White children of native-born parents. These households may result in children having fewer access to material resources if their parent or parents are in financially strained situations, provide assistance to extended relatives, or if all adults co-reside out of necessity. However, more work is needed to understand how these households form and

function, particularly since they may consist of a larger number of members compared to non-extended households or vertical-only or horizontal-only households.

There may be other benefits associated with living with an extended relative, such as children's behavioral outcomes but few or no benefits with regards to children's academic performance in early childhood. Theories that assess the link between family household composition and academic performance need to account for children's positionally, consider different types of extended households, and assess association between family household composition using representative data with concrete measures of academic performance.

I found no clear association between the role of stability or disruptions when children lived in a single-parent household or with extended relatives. Yet, children who remained in a vertical and horizontal household tended to perform lower compared to children who remained in a non-extended household. Though there was no clear association, this offered insights behind how children who remain in households that are not conducive to their academic performance may suffer academically compared to children in non-extended households. The exits or entries of an extended relative tend to be less consequential compared to the exits or entries of a parent. More work needs to theorize under which conditions household disruptions have positive or detrimental implications for children's academic performance. This will shed light on factors that may be protective for children in the event of a disruption and factors that provide a cumulative disadvantage.

Though I did not distinguish between Latina/o ethnic groups, I expect differences in family household composition. Migration histories, contexts of reception, legal status, family networks, and relative socioeconomic positions may all have implications for children's family household composition. A focus on ethnic Latina/o groups could further advance theories on

how we analyze the relationship between family household composition and children's educational performance.

Future work can continue exploring the factors associated with children of immigrant parents living with a single parent and with different types of extended relatives. For instance, we understand relatively little about family household composition among mixed-status immigrant families. Parental separation in these families may be more likely due to the risk of detention and deportation of parents (Dreby 2012, Hagan, Eschbach and Rodriguez 2008) while living with extended relatives may also be more common, especially since mixed-status families generally have lower socioeconomic status (Castañeda 2019). Hall, Musick and Yi (2019) found that undocumented immigrants lived in extended household at higher rates compared to immigrants with a form of status or native-born children of immigrant parents. Relatedly, Kang and Cohen (2017) found that children of immigrants who belonged to mixed-status families were more likely to reside in extended households compared to children of immigrants with native-born parents.

More studies should explore why living with extended relatives is consequential for children's academic performance. This could involve parsing out the financial contributions extended relatives make to the household or a designation between who the "head of the household" is if single parents are co-residing with extended relatives. Insights on the direction of financial support could inform whether this can also shape if children benefit from living with extended relatives. Relatedly, relatively few studies have focused on relationship quality among members in extended households (Dunifon and Bajracharya 2012), which may directly and indirectly shape children's educational performance. Though my focus was on children, salient differences between family household composition raise questions about the experiences of

immigrant parents and immigrant grandparents in single-parent and/or extended households. This is an important direction for future research since we understand relatively little, even among native-born parents and grandparents (Baker and Mutchler 2010, Mendoza et al. 2017).

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