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# Post-Birth Marriage, White-Hispanic Families, and Child Academic Achievement

Sadie Andrews Slighting

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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#### Abstract

# Post-Birth Marriage, White-Hispanic Families, and Child Academic Achievement

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Master of Science

Over the past decade, policymakers have promoted marriage as a pathway to improve child outcomes in single-parent households. However, previous research on single mothers who later married in the United States has failed to examine how the structural advantages and disadvantages of race influence post-birth marriages and the advantage they may confer. I investigate how white advantage—the human- and social-capital benefits that come from being a white individual—acts as a resource distributed differently across three couple configurations. I predict that having access to white advantage via a white parent will improve child academic achievement. Using the US Early Childhood Longitudinal Study 1998 (ECLS-K 1998) and the US Early Childhood Longitudinal Study 2011 (ECLS-K 2011), I compare children from white monoracial marriages, white-Hispanic interracial marriages, and Hispanic monoracial marriages. My results suggest that white advantage in the home increases access to critical resources that improve child academic achievement. Additionally, I find further evidence of Hispanic disadvantage as children from Hispanic monoracial marriages score lower on math and reading tests than children from white monoracial marriages, even after accounting for resource and demographic factors.

Keywords: marriage, single mothers, academic achievement, white-Hispanic couples, interracial marriage, white advantage



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#### INTRODUCTION

According to the 2016 U.S. Census, 23 percent of children are being raised by single mothers (U.S. Census Bureau 2016). Many researchers have thoroughly addressed the various economic and social inequalities that single mothers and their children encounter (McLanahan and Sandefur 1996; Page and Stevens 2004; Amato and Maynard 2007). Single mothers and their children report lower income, lower academic achievement, poorer health, and higher rates of deviance compared to children in two-parent married households (McLanahan and Sandefur 1996; Sharkey and Elwert 2011).

In response to substantial differences between children in single households and twoparent married households, many policymakers and scholars posit marriage as a pathway to
improve child outcomes as it is associated with increased stability, parental involvement, and
greater socioeconomic resources due to the entrance of an additional parent in the home (Jeynes
1998; Amato and Rogers 1997; Hoffman 1977). Yet, Wagmiller et al. (2010) found that children
that lived with single mothers that married did not substantially benefit from their mother's
marriage. Children from financially-stable single mothers benefited the most from parent entry,
contradicting the idea that marriage functions as a universally beneficial policy prescription to
lift disadvantaged families out of deleterious circumstances (Wagmiller et al. 2010).

However, it is unclear whether there are differences in child educational outcomes conditional on the racial configurations of post-birth marriages. Indeed, race, as a symbolic category, has historically functioned as a marker that frequently delineates access to vital human-and social-capital resources that can improve child outcomes (Cheng and Powell 2007). At the top of the racial hierarchy, whites have consistently received the greatest benefits such as access to better employment opportunities, superior educational settings, and safer neighborhoods



relative to racial and ethnic minorities—especially blacks and Hispanics (Fox and Stallworth 2005; Quillian 2017; Duncan and Murnane 2011). These, and other, advantages for whites can act as an additional benefit, oftentimes improving family and child circumstances (Mundra, Moellmer, and Lopez-Aqueres 2003). In post-birth marriages, white advantage itself may act as a mechanism providing expanded access to resources. However, for families without a white parent, access to these race-specific resources through marriage may be frustrated.

This pattern of racial advantage for whites and disadvantage for racial and ethnic minorities as it relates to child outcomes has become increasingly salient given recent demographic changes in the U.S. Marriage looks differently today than in years past. Since the 1980s the rate of interracial marriages has steadily increased, tripling from 1980 to 2015 (Livingston and Brown 2017). As of 2016, more than 10 percent of all marriages were interracial, with white-Hispanic couples the fastest-growing group (Rico, Kreider, and Anderson 2018). In 2016, 2 percent of new marriages were between a non-Hispanic white (hereafter white) individual and a Hispanic individual; and, in 2017, 42 percent of newly married interracial couples were white-Hispanic (Rico et al. 2018; U.S. Census Bureau 2019). Notwithstanding this growth in the number of white-Hispanic households and the children associated with these unions, the children from interracial families remain an under-researched group. Failing to investigate the child outcomes of these diverse families will limit our understanding of a group that is having a growing impact on American social life. Additionally, researchers have failed to explore how advantage in these different family configurations influences more intimate parts of family life. More specifically, I explore whether these processes work the same way in a context where white advantage is a resource distributed differently across couple configurations. By

observing these unique households where post-birth marriage occurs, I investigate how the advantage ascribed to whites influences post-birth marriage and child outcomes.

Thus, in this study, I aim to address whether the racial context of post-birth marriages is associated with child academic outcomes. In particular, among families where parents and/or stepparents marry after a child is born, do children of white monoracial families—who tend to experience the greatest racial advantage—perform the highest on academic tests? Also, among families where parents and/or stepparents marry after a child is born, do children from white-Hispanic families—who have access to some white advantage—score higher than children from post-birth Hispanic monoracial families but lower than post-birth white monoracial families? To compare three different racial family configurations, I use data from the US Early Childhood Longitudinal Study 1998 (ECLS-K 1998) and the US Early Childhood Longitudinal Study 2011 (ECLS-K 2011) to isolate single mothers at the time of their child's birth who later married. I note the race of the mother and father, either biological father or stepfather, and compare children from three different family types: white monoracial, Hispanic monoracial, and white-Hispanic interracial. I use data from kindergarten through the fifth grade using children's math and reading Item Response Category (IRT) scores to compare child academic achievement from these three groups.

#### **BACKGROUND**

Why marriage?

Family research suggests that family transitions negatively influence child outcomes (Brown 2006; Brown 2004; Osborne and McLanahan 2007). Family transitions, such as a partner moving in or out, occur more frequently in cohabiting and single-parent households (Brown 2006). These transitions negatively influence children as they experience higher levels of stress



and lower well-being than children in stable two-parent married households (Hetherington 1989; Amato 2005). However, some family research gives reason to believe that the transition from a single household to a married household may benefit children (Brown 2010). One key difference researchers emphasize between two-parent married households and single-family households that indicates a transition to marriage may improve child outcomes is access to financial and social resources (Siassi 2019).

Children being raised by single mothers make up the majority of children living in poverty in the U.S. (Mather 2010). Single-mother households experience higher economic insecurity than two-parent married households (McLanahan and Booth 1989). Single mothers tend to have less education and work experience, resulting in lower wages and longer work hours (Mather 2010; Weinraub and Wolf 1983). Compared to married mothers, single mothers also receive less emotional and parental support, increasing the mother's and child's exposure to stressful life events (Weinraub and Wolf 1983). Other scholars indicate that children in single-parent families have limited access to parental involvement, critical social networks, and other social resources (McLanahan and Sandefur 1996). Single mothers' limited resources and restricted social support systems negatively influence their ability to meet the needs of their children (Weinraub and Wolf 1983). Overall, children in married households report better wellbeing, better health, higher test scores, and fewer behavior problems than children in single-parent households (Brown 2004; Wu, Schimmele, and Hou 2015; Bramlett and Blumberg 2007).

Resulting from these differences by family structure, the federal government has prioritized marriage as a solution to improve adverse child outcomes in the United States throughout the last two decades (Cherlin 2004). Research shows that marriage is associated with an increase in income over the child's adolescence by nearly 45 percent and higher levels of



parental involvement, both resources associated with improved child outcomes (Jeynes 2008; Page and Stevens 2004). Due to increased stability and financial and social resources, policymakers interpret this to suggest that child outcomes will improve if single mothers marry.

However, suggesting that marriage is a remedy for poor child outcomes without taking into account the differences in child outcomes based on the racial configuration of post-birth marriages will lead to incorrect conclusions about these unique families. Race is a factor that is strongly associated with how advantage is shaped in the U.S., yet it has been largely ignored in this discussion. Wagmiller et al.'s (2010) research, while beneficial, does not take into account the racial hierarchy in American society and the structural inequality that permeates various aspects of life, including marriage and resource distribution (McNeill and Rowley 2019). Research on racial stratification in the U.S. shows that resources are not equally distributed among individuals and that there are observable patterns of relative advantage and disadvantage across racial groups (Wilson and Schieder 2018; Dalmage 2000). While this applies to many racial groups, I focus on a comparison of white, non-Hispanic individuals and Hispanic individuals because they are the fastest growing group of interracial families (Rico et al. 2018). Structural Advantage and Disadvantage by Race

Marriage Opportunities

The argument for marriage policies hinges on the idea that marriage brings additional advantages to the family. However, many policymakers pushing marriage programs fail to consider the challenging circumstances of finding a spouse and the influence race has in this process (Crowder and Tolnay 2000). Qualitative research shows that racial identity is an important part of mate selection (Rosenfeld 2001). Although interracial marriage is increasing in occurrence, the majority of married couples are still monoracial (Livingston and Brown 2017).

Marriage scholars suggest racialized dating and marriage preferences are one explanation as to why the majority of couples remain monoracial (Fisman et al. 2004). With race preferences and other obstacles that Hispanic women encounter, not all marriage pools are equal (Fisman et al. 2004; Lichter et al. 1992). Although outside of the Hispanic context, black women experience marriage limitations because of incarceration and racial differences in partner availability, resulting in fewer marriageable men (Lichter et al. 1992). Hispanic women likely face similar limitations and changing immigration laws that limit their opportunities and the advantage these marriages may confer. With fewer opportunities or choices, Hispanic mothers may be more inclined to marry someone with less education, income, and access to financial and social resources. On the other hand, white mothers have a broader pool unrestricted by structural racism. Therefore, Hispanic mothers may not have the same access as white mothers to a marriage that could bring vital financial and social resources into the home. Failing to acknowledge how race affects marriage opportunities and thereby access to financial and social resources is a problem. Not only does race influence marriage opportunities, but structural disadvantage by race may aid in the unequal distribution of resources into families as a new partner/parent enters.

#### Economic Inequality

To understand how race continues to shape advantage in post-birth marriages, I explore how racialized structural advantages and disadvantages impact post-birth marriages and child outcomes. As of 2018, 19 percent of Hispanics fell below the poverty line compared to only 9 percent of whites (The Henry J. Kaiser Family Foundation Blogs 2018). In 2017, the median white income was \$68,145 compared to the median Hispanic (of any origin) income of \$50,486 (U.S. Census Bureau 2018). Workplace discrimination and underrepresentation in managerial



and professional roles elucidate as to why earning potentials vary by race (Mundra et al. 2003; Sanchez and Brock 1996; Reimers 1983). Hispanics are 26 percent less likely to hold leadership positions, as they are not given the same opportunities for training, development, and mentoring as their white counterparts (Mundra et al. 2003). At the top of the racial hierarchy, white individuals are privileged to advantages such as equal pay and opportunities to advance their careers. White individuals do not encounter this type of structural-level discrimination nor do they face the same level of interpersonal discrimination in the workplace (Fox and Stallworth 2005).

Research suggests that a lack of financial security is couples' largest impediment to getting married (Smock, Manning, and Porter 2005). Hispanic individuals face higher rates of poverty, indicating that their inability to overcome monetary obstacles to marriage is much greater. These challenges not only limit marriage opportunities and choices for Hispanic individuals but limit the advantage those marriages may confer. Entering into a Hispanic monoracial marriage may meet the requirements of promoted marriage policies by bringing a second parent into the family; however, that marriage may not bring the same level of advantage to a child as a white monoracial marriage where neither parent experiences the obstacles of minority status. Racialized structural-level inequality influences marriages and the level of advantage they may confer.

# *Immigration*

However, structural economic disadvantage is not the only differentiating factor between Hispanic and white individuals. Many argue that a contributing factor to racialized inequality is high rates of Hispanic immigration to the U.S. (Flores 2017). Recent research on the white-Hispanic economic inequality suggests it can be largely explained by differences in immigrant



status, education, and experience (Sánchez-Soto, Bautista-León, and Singelmann 2018). The disadvantages Hispanic immigrants face directly influence marriage and child outcomes. Many Hispanic immigrants come from impoverished countries with fewer skills, lower levels of training and occupational prestige, a language barrier, and the stigma of being a Hispanic immigrant in an unfriendly political environment (Mundra et al. 2003; Lopez, Gonzalez-Barrera and Krogstad 2018). These obstacles directly influence marriage and resources. For example, more than half of immigrant Hispanics marry another immigrant Hispanic, which may indicate that the marriage pool for immigrants is smaller than non-immigrant Hispanics (Qian, Lichter, and Tumin 2017). Not only may immigrant marriage opportunities be limited, but immigrants are more likely to earn lower wages and reside in disadvantaged neighborhoods (Quillian 2017; Duncan and Murnane 2011; Attar, Guerra, and Tolan 1994). Because of these disadvantages, an immigrant partner in a marriage might have limited resources to contribute to the family, meaning fewer benefits for the children. Disadvantages such as these, that Hispanics immigrants and natives alike—face impedes access to other critical social resources that improve child outcomes, such as social capital, well-funded schools, and safe neighborhoods (Schneider, Martinez and Owens 2006). These disadvantages influence children and families in a variety of ways.

Marriage, Child Outcomes, and Race: The Persistence of White Advantage

One unanswered question in the puzzle of how race might affect if there are advantages to children when their parents marry is whether race should be considered a disadvantage or an advantage. While there is a large body of research showing that people of color have fewer resources, limited opportunities for career development, and unique obstacles associated with immigrant status, it is also true that white individuals enjoy a certain level of advantage because

of their race (Mundra et al. 2003; Brown and Wellman 2006). Race scholars argue that individual explanations (individual effort/qualifications) for racial inequality are inadequate as there are undeniable structural level advantages associated with being white (Brown and Wellman 2006). A review of the historical economic and social context of race in the U.S. illuminates how white individuals have access to benefits such as employment and education opportunities inaccessible to people of color (Krivo et al. 1998). Historically, white individuals have accumulated racial advantages through labor market discrimination and racialized public policies (Oliver and Sharpiro 2006). For example, post-World War II policies limited or altogether prevented black war veterans from participating in state-sponsored opportunities, such as the G.I. Bill (which included unemployment compensations), loans to start a business or buy a house, and payment to attend college or vocational training (Onkst 1998). As white individuals continue to secure advantages through institutional mechanisms, this reduces available resources for people of color causing severe economic repercussions (Picower and Mayorga 2015; Brown and Wellman 2006). Recent scholars have described this phenomenon as white advantage, where white individuals have access to certain benefits at the cost of people of color (Massey 2001).

White advantage entails not only short-term economic advantages such as higher wages and career advancement, but white individuals have greater access to financial opportunities, such as home ownership that allow them to accumulate wealth (Sharp and Hall 2014; Brown and Wellman 2006; Roithmayr 2010). The accumulation of wealth allows white individuals the opportunity to improve their economic status and the economic status of their posterity, a feat less commonly achieved by people of color (Brown and Wellman 2006; Crowder, Scott, and Chavez 2006). Repercussions of white advantage, such as the accumulation of wealth, are perpetuated by racial exclusion (Roithmayr 2010). Historically, white individuals have bound

together to exclude people of color from living in white neighborhoods, participating in certain workplaces, and so forth (Roithmayr 2010; Pager 2003; Massey and Denton 1995). For example, workplace research expounds on the lack of upward mobility for minority groups (Elliot and Smith 2004; Reid and Padavic 2005; McGuire and Reskin 1993). Ray (2019) suggests that organizations are innately racialized and that whiteness acts as a credential expanding the benefits of white individuals and limiting those of people of color. This type of workplace discrimination perpetuates racialized inequality as organizations structure boundaries that prevent people of color from being upwardly mobile (Avent-Holt and Tomaskovic-Devey 2019).

Additionally, neighborhood and school segregation impact the education of children of color. Owens (2010) found that lower relative neighborhood socioeconomic status predicts lower rates of high school graduation, indicating that the racial composition of a neighborhood influences child educational success. Billingham and Hunt's (2016) research suggests that the racial composition of a school influences the likelihood of whether or not white parents will enroll their children. As white parents opt-out of enrolling their children in schools with a nonwhite majority, resources and opportunities available in these schools, limiting the education of minority children (Billingham and Hunt 2016; Rich 2019). Through this type of exclusion, white individuals secure the benefits of white advantage while disadvantaging minority groups. Today white advantage acts as a resource to improve the circumstances of white families and future generations as it provides access to unequal opportunities in a variety of institutions, such as employment, healthcare, and political representation. Thus, white advantage not only benefits white individuals but disadvantages people of color. This might mean that marriage, as scholars and policymakers predict, may not automatically confer additional resources to the family because of these structural obstacles. Gaining access to additional resources may be much more



complex than parent-entry via marriage as symbolic categories, such as race, shape their distribution.

Therefore, in this study, I explore how different levels of access to white advantage influence the potential advantages marriage provides. By comparing child outcomes between white monoracial, Hispanic monoracial, and white-Hispanic interracial marriages and their children, I attempt to explore how white advantage—the human- and social-capital benefits that come from being a white individual—influences children. I specifically focus on interracial white-Hispanic marriages in the hopes of understanding how having limited access to white advantage will influence child outcomes. Researchers find that interracial white-Hispanic couples are more similar to white couples than they are to non-immigrant Hispanic monoracial couples (Negy and Snyder 2000). However, current literature fails to investigate how white advantage influences the circumstances of interracial post-birth marriages and children in these homes. I account for the racial configuration of post-birth marriage with the hope of providing further insight as to why post-birth marriage might benefit children differently. I predict that access to white advantage via a white parent will act as a resource to improve child outcomes.

#### THE CURRENT STUDY

The current literature has examined the differences between children from single mothers and two-parent homes, white children and minority children, and monoracial families and interracial families. However, little has been done to combine these characteristics to test how structural advantages and disadvantages by race influence the potential advantage post-birth marriage may confer on children. The purpose of this study is to directly address how post-birth marriage affects child outcomes in a context where white advantage is a resource distributed differentially across three couple configurations: (1) where both parents have white advantage,



(2) where neither parent has the benefits of white advantage, and (3) where one parent has the benefits of white advantage and the other does not.

One common child outcome used to measure differences by family configuration and race is child academic achievement (Fryer and Levitt 2006; Usevitch & Dufur forthcoming). Research shows that child test scores affect grade advancement, which subsequently influences graduation rates, college enrollment, and other education achievements (Alexander, Entwisle, and Kabbani 2001). Education influences a variety of adult outcomes such as employment, income, incarceration, health, etc. (Lochner 2004; Cutler and Lleras-Muney 2006). The influence of race in the education system is well documented, as research confirms the white-Hispanic academic achievement gap (Miller 1997; Cross 2019). For example, Hispanic students begin kindergarten with lower math and reading skills compared to white students (Reardon and Galindo 2009). Thus far, researchers have failed to investigate the influence that having access to white advantage via a white parent in a post-birth marriage might have on child academic achievement.

# Hypotheses

My first hypothesis presents a racial hierarchy of the racial configuration of the post-birth marriage. Hypothesis 1a establishes a foundational baseline of the difference between white monoracial couples, where both parents have white advantage, and Hispanic monoracial couples, where neither parent has the benefits of white advantage. Compared with children from Hispanic monoracial marriages, children from white monoracial marriages will have access to white advantage that will improve their academic achievement.



#### Hypothesis 1a

Children from post-birth white monoracial marriages will score higher on academic tests than children from Hispanic monoracial marriages.

Children from white-Hispanic marriages will have limited access to white advantage, via one of their parents, providing them with additional resources to outperform children from Hispanic monoracial marriages with no access to white advantage.

#### Hypothesis 1b

Children from post-birth white-Hispanic interracial marriages will score higher on academic tests than children from Hispanic monoracial marriages.

However, children from white-Hispanic interracial families will not have access to white advantage to the same extent as children from white monoracial marriages. Children from white-Hispanic interracial families will hold a "middle" position with limited access to white advantage, thus scoring higher on tests compared to their Hispanic monoracial counterparts, yet lower than children from white monoracial marriages.

#### Hypothesis 1c

Children from post-birth white-Hispanic interracial marriages will score lower on academic tests compared to children from white monoracial marriages.

As described above, resources play a critical role in child outcomes as they influence family life and child opportunities. Such arguments help explain why the idea of marriage remains an attractive solution. However, race continues to shape access to vital resources in the form of white advantage. Therefore, I postulate that the negative effects of structural-level and interpersonal discrimination against Hispanic individuals will persist even when accounting for resource differences.



## Hypothesis 2

The racial hierarchy I describe in Hypothesis 1 will persist net of resource controls.

METHODS AND MEASURES

Data

This research uses two datasets: The US Early Childhood Longitudinal Study 1998 (ECLS-K 1998) dataset and The US Early Childhood Longitudinal Study 2011 (ECLS-K 2011) dataset. These longitudinal datasets were collected by the National Center for Education Statistics (NCES) that followed children from kindergarten up until the eighth grade in ECLS-K 1998 and up until the fifth grade in ECLS-K 2011. Both surveys were conducted by the NCES making survey questions similar and producing variables that could be confidently combined. The measurement of these variables produced consistent means across cohorts, except parental involvement. The NCES designed the ECLS-K 2011 survey as a follow-up to ECLS-K 1998 anticipating their use together.

ECLS-K 1998 has 21,409 respondents in fifth grade; ECLS-K 2011 has 18,174 respondents in fifth grade. After limiting my sample to mothers who were single at the time of their child's birth and later married, ECLS-K 1998 had 534 respondents and ECLS-K 2011 had 1,140 respondents. Combined, this created an analytic sample of 1,674 respondents. The large difference in the number of children from each dataset is likely a result of the increasing trends in delayed marriage and interracial marriage (Meekers and Gage 2017; Rico et al. 2018). A cohort control variable is included to account for any possible cohort effect (0 = ECLS-K 1998 and 1 = ECLS-K 2011; reference group = ECLS-K 1998).

I used multiple waves from each dataset. Most variables were drawn from the fifth-grade wave (Wave 6 for ECLS-K 1998; Wave 9 for ECLS-K 2011), as fifth graders were the oldest



students in the ECLS-K 2011 dataset. Data in Wave 6 in ECLS-K 1998 were collected in 2012; data in Wave 9 in ECLS-K 2011 were collected in 2016. I used waves one, two, four, five, and six to measure the occurrence of post-birth marriage, which could take place in any of these waves. In ECLS-K 2011, I used waves one, two, four, six, seven, eight, and nine, to measure the occurrence of post-birth marriage, which could take place in any of these waves. I used all available waves in which parents were interviewed.

Sample

My sample includes mothers who married after the birth of their child. Therefore, I define post-birth marriage as women who were unpartnered in terms of co-residence at the time of their child's birth and married after the birth of their child. This definition excludes women who were cohabiting at the time of their child's birth and women who later cohabited but did not marry. I decided to use the most conservative measure of single mothers to more accurately capture post-birth father entry into the home. I capture the mother's transition into marriage using questions from the spring of kindergarten through the fifth grade (Waves 2-5 in ECLS-K 1998; Waves 2-9 in ECLS-K 2011). This brought my final sample size to 1,674 children—534 in ECLS-K 1998 and 1,140 in ECLS-K 2011—whose mothers married after they were born. The sample is limited to single mothers because there were so few single fathers in the datasets. All of these marriages involve mothers marrying men due to legal restrictions in the United States at the time the data were collected.

Math and Reading IRT Test Scores

The outcome variables for this study are math and reading Item-Response Theory (IRT) test scores for children in the fifth grade. IRT scores are unique in that rather than treating omitted items (whether the child refused to answer or discontinued the test) as incorrect, IRT methods



use patterns of response to predict the likelihood of the child providing a correct answer (Najarian et al. 2018). IRT methods make possible the creation of a common scale to measure the level of achievement, regardless of which questions are administered to the child (Son and Meisels 2006).

There were 212 possible reading comprehension questions and 174 possible math questions, making possible ranges for reading IRT 0-212 and for math IRT 0-174 (Usevitch and Dufur forthcoming). The ranges in math and reading scores differ across the two datasets. Therefore, the scores were standardized before combining the two datasets. By standardizing scores, I account for differences between the two cohorts and changes in the education system from 2012 to 2016, thus making them more reliably comparable. The math and reading standardized scores are interpreted as follows: zero indicates the child score is average, negative values indicate below average, and positive values indicate above average.

Key Explanatory Variable: Racial Configuration of the Post-birth Marriage

To account for post-birth monoracial and interracial marriages, I first noted the race of the mother and race of her husband and combined them to make a couple race configuration variable. This resulted in three categories: (1) mother is white and father is white; (2) mother is Hispanic and father is Hispanic; and (3) either the mother or father is white, and the other parent is Hispanic. Unfortunately, cell sizes were too small (65 marriages with a white husband and Hispanic wife) within the third group to specify which parent is white to make gender comparisons. I use father here to refer to biological or non-biological fathers; in my sample, 76 percent are biological fathers and 24 percent are non-biological fathers (stepfathers). I recognize that mothers in my sample may have married, divorced, and remarried in the time between the birth of their child and when their child is in fifth grade. In my sample, fewer than 24 percent of



mothers in monoracial marriages married twice and fewer than 23 percent of mothers in white-Hispanic married twice. Because I am assessing the child's math and reading scores in the fifth grade, the marriage closest to the fifth grade is my primary interest. Therefore, all father demographics reflect the mother's husband when the child is in the fifth grade. I do not include marriages that dissolved. I include a dichotomous control variable to account for whether the mother was previously married, as this may reflect family instability, which is known to influence child outcomes (Jeynes 1998).

#### **Controls**

I include the following three types of controls: (1) financial and social resources, (2) parent demographics, and (3) child demographics. Policymakers and researchers alike argue that one of the major benefits of marriage is an increase in resources (Jeynes 1998). I predict that access to resources will vary across the three couple configurations; therefore, I begin by controlling for key financial and social resources that are believed to influence child academic achievement. Higher levels of mothers' and fathers' education are associated with increased child academic achievement (Davis-Kean 2005). Yet, education settings and opportunities vary by race (Schneider et al. 2006). NCES provided mothers' and fathers' education coded categorically into five groups, ranging from less than a high school diploma to a post-graduate experience (1 = less than high school, 2 = high school diploma, 3 = some college/equivalent, 4 =Bachelor's degree, 5 = post-grad experience; reference group = less than high school). Additionally, parent employment influences financial and social resources available to the child. Mothers' and fathers' employment measures reflect the original survey options (0 = not in thelabor force, 1 = looking for work, 2 = part-time, and 3 = full-time; reference group = not in the labor force). NCES reported income in 20 categories. I recoded each category to the median to



reflect dollar increases. Before combining datasets, I standardized income to account for earning differentials between 2012 and 2016. A zero indicates the family's income is average, negative values indicate a below-average income, and positive values indicate an above-average income.

Resources that influence child outcomes extend beyond finances. Marriage brings an additional adult into the home, oftentimes increasing social resources, such as parental involvement. Previous research suggests that increased parental involvement is associated with improvement in child academic achievement (Boonk et al. 2018). In ECLS-K 1998, I used the question, "How often [PERSON] helps with reading homework?". This question was also asked about math homework; therefore, I took the highest level of parental interaction between the two. NCES asked in ECLS-K 2011, "During this school year, how often did you or someone else help (CHILD) with (his/her) homework?". For both questions, the response categories reflect the original 1998 and 2011 survey responses (I = never, 2 = less than once a week, 3 = one to two times a week, 4 = three to four times a week, and 5 = five or more times a week; reference group = never). I test this combination of financial and social resources to explore if white advantage acts beyond known resource inequality, influencing the intimate aspect of marriage and child-rearing.

Additionally, I control for other parent characteristics that may influence child access to resources. As previously stated, I account for whether the father is biological or a stepfather (0 = stepfather, 1 = biological father; reference group = stepfather). I also control for if the mother was previously married (0 = not previously married, 1 = previously married; reference group = not previously married). Furthermore, immigration status is an important aspect of this study as I compare white and Hispanic families. In 2017, roughly one-fourth of all U.S. children were first-or second-generation immigrants and roughly 50 percent of Hispanic youth were immigrants or



children of immigrants (Child Trends 2018). Children of immigrants face unique obstacles, such as language or cultural barriers, and thus perform lower on average than native-born children on standardized tests (Schneider et al. 2006). Therefore, I account for parents' immigration statuses, as it associates with limited employment opportunities, lower-income, and unique challenges getting involved with their child and the school (Radford 2019; White and Kaufman 1997).

Parent immigration is measured in three groups (0 = neither parent an immigrant; 1 = one parent an immigrant; 2 = both parents immigrants; reference group = neither parent an immigrant).

Hispanic monoracial families and white-Hispanic interracial families with an immigrant parent(s) may experience additional disadvantages in a home.

I also control for child demographics. I control for child gender (0 = male and 1 = female; reference group = male) and child age, which is reported during the fifth grade as a continuous measure reported in months. I control for gender and age differences, as boys and older children on average score higher on standardized tests (Niederle and Vesterlund 2010). Jeynes (1998) proposes that the length of exposure to marriage influences child achievement as stability improves child outcomes. Therefore, I take into consideration the length of exposure to the focal marriage by counting the number of years the mother has been married to the current partner. The time increments between waves vary with each dataset and across the two datasets, making this a rough proxy of the length of the child's exposure to the marriage. For example, because IRT scores are reported in the spring of fifth grade, if the mother reported her marriage in the spring of kindergarten, the length of exposure is coded as 5. This represents five school years from the time the marriage is reported in the spring of kindergarten to the spring of fifth grade. If the mother reported her marriage in the spring of third grade, the length of exposure is coded as 2, representing the two school years that elapsed from the time the marriage is reported in the



spring of third grade to the time the child's IRT scores are reported in the spring of fifth grade. All of these variables are drawn from the fifth-grade wave (Wave 6 for ECLS-K 1998; Wave 9 for ECLS-K 2011).

Missing Data

I performed multiple imputation on fathers' education, mothers' and fathers' employment, income, parents' immigration, parental involvement, child age, and math and reading IRT scores. All of these variables had more than 3 percent missing and fewer than 46 percent missing with the highest percent missing on the parents' immigration statuses (45.64 percent). I used Stata 16 and performed chained multiple imputation with 20 iterations. I imputed on the outcome variables of math and reading IRT scores to preserve children from families of post-birth marriages (Young and Johnson 2010). All other variables had no missing data. After completing MI, I executed diagnostics on the imputed datasets to ensure that the imputed data mirrored expected results; all tests met the requirements.

Analytic Strategy

I begin by examining descriptive statistics of my sample. I then observe descriptive statistics by the racial configuration of the post-birth marriage to compare resources and parent and child characteristics. I then estimate four OLS regressions for both math and reading test scores. Model 1 includes child academic achievement regressed on the racial configuration of the post-birth marriage. Prior research suggests that resources play a crucial role in the success of post-birth marriage benefits (Wagmiller et al. 2010). Therefore, Model 2 includes child academic achievement, the racial configuration of the post-birth marriage, and resources, including parents' education, parents' employment, income, and parental involvement. In Model 3, I account for additional family demographic differences that may influence access to resources,



altering the degree to which post-birth marriage is beneficial to the child. Therefore, Model 3 adds controls for biological father, previous marriage, and parents' immigration statuses. Model 4 adds the following child demographic controls: child age, child gender, and length of child exposure to the marriage.

#### **RESULTS**

Sample Descriptive Statistics

Table 1 presents descriptive statistics for IRT scores, the racial configuration of the post-birth marriage, and parent and child demographics to provide initial information about individuals in post-birth marriages. IRT scores have been standardized, thus average reading and math scores are zero. I find that the majority of children in post-birth married families reside in monoracial households, with nearly 54 percent living in white monoracial households and 38 percent living in Hispanic monoracial households. Only 8 percent of the children in my sample reside in a white-Hispanic interracial household. This appears to be higher than previously stated projections of interracial marriages. However, this sample includes only marriages that took place after the birth of the child, which may explain the difference (U.S. Census Bureau 2016).

Mothers in my sample obtained slightly higher levels of education than fathers, consistent with current research on the gender education gap (DiPrete and Buchmann 2013). The majority of fathers in this sample earn no further than a high school diploma, suggestive of selectivity: men who elect to marry a woman who already has a child come from a specific group of men who receive lower levels of education (U.S. Census 2018). Subsequently, many likely have limited access to future employment opportunities and resources. Around 60 percent of mothers and 89 percent of fathers are employed either full or part-time, indicating many households are dual-earner (Jeynes 2008; Page and Stevens 2004). The level of parental involvement indicates



that the majority of parents are involved with their child and his/her schoolwork multiple times a week.

In this sample, the majority of fathers are the child's biological father and the mother has not been previously married. While the majority of these parents are non-immigrants, 23 percent of these households have one immigrant parent, and in 12 percent of households, both parents are immigrants. In my sample, there are more girls than boys and the average child age is 11 years old, reflective of fifth-graders the U.S. The average post-birth marriage took place when the child was roughly 7.5 years old.

#### [Table 1 about here]

Sample Descriptive Statistics by Racial Configuration of the Post-birth Marriage

To better understand the differences in resources and other demographics across the three couple configurations, I present means and proportions by the racial configuration of the post-birth marriage (see Table 2). Although these findings are merely descriptive, these suggestive racialized differences in resources may explain differences in the advantage a post-birth marriage may confer. In terms of average math and reading scores, children from Hispanic monoracial marriages score below average (math:  $\bar{x} = -.279$ ; reading  $\bar{x} = -.339$ ), unlike children from monoracial white marriages (math:  $\bar{x} = .191$ ; reading  $\bar{x} = .220$ ) and children from white-Hispanic marriages score lower on average than children from white monoracial marriages. These findings imply possible racialized achievement differences for children from white monoracial families compared to white-Hispanic interracial and Hispanic monoracial families.

Education levels are strikingly different across these three groups, suggesting that white advantage may influence access and opportunity. In Hispanic monoracial marriages, the majority



of mothers and fathers fail to earn high school diplomas. A striking 75 percent of mothers in Hispanic monoracial marriages are not educated beyond high school compared to only 49 percent of mothers in white-Hispanic marriages and only 32 percent of mothers in white monoracial marriages. Fathers' education levels follow a similar pattern. Nearly 62 percent of fathers in white monoracial, roughly 65 percent of fathers white-Hispanic interracial marriages, and nearly 85 percent of fathers in Hispanic monoracial marriages earn no more than a high school diploma. These educational differences provide limited evidence of Hypothesis 1, white monoracial couples report the highest education levels, white-Hispanic education levels are fairly similar, and Hispanic monoracial couples report the lowest levels of education.

Additionally, there are large variations in employment by couple configuration. Mothers in Hispanic monoracial marriages report notably higher levels of unemployment compared to mothers in white monoracial and white-Hispanic marriages. Mother and father employment levels in white monoracial marriages and white-Hispanic marriages are nearly identical. However, nearly 20 percent of fathers in Hispanic monoracial marriages report either not being in the labor force, looking for work, or working part-time—4 percent higher than fathers in white monoracial marriages and 6 percent higher than fathers in white-Hispanic marriages. Education and employment differences by racial configuration may elucidate differences in income levels as Hispanic monoracial marriages report below-average income and white monoracial and white-Hispanic marriages report above-average income. These substantial differences in financial resources between white-Hispanic couples and Hispanic monoracial couples provide support for Hypothesis 1, that having white advantage itself may act as a mechanism providing expanded access to resources. Additionally, Hispanic monoracial families with no white parents are disadvantaged with limited access to financial resources.



Not only do children from Hispanic monoracial marriages appear to have fewer financial resources, but they also have fewer social resources. Parents in Hispanic monoracial marriages report the lowest levels of parental involvement, followed by white-Hispanic marriages, with white monoracial marriages reporting the highest levels of parental involvement. Interestingly, Hispanic monoracial marriages report the highest proportion of biological fathers (84 percent). This may reflect an unmeasured religious component, likely increasing the rate of marriage to the parent of their child. Other controls reflect only slight differences across groups.

Variation by racial configuration supports my hypothesis that children from white-Hispanic post-birth families have access to white advantage. Mothers and fathers in white-Hispanic marriages report higher levels of education, employment, income, and parental involvement compared to their Hispanic monoracial counterparts, yet lower than their white monoracial counterparts. This provides evidence for my "middle position" hypothesis, as children from white-Hispanic marriages have limited access to white advantage.

## [Table 2 about here]

# Multivariate Analysis

With suggestive descriptive differences in IRT scores, resources, and parent demographics by couple configuration, I continue my exploration by estimating multivariate tests that indicate statistically significant differences across these three family configurations. I estimate OLS regressions of the racial configuration of the post-birth marriage on math (Table 3) and reading (Table 4) IRT scores in four different models. With each model, I add variables to parse out differences in access to critical resources and parent and child demographics.

#### Math IRT Scores

I begin by examining IRT math scores. Model 1 includes my racial configuration of the



post-birth marriage with white monoracial marriages as the reference group. Model 1 suggests that when accounting for parents' races, children from Hispanic monoracial marriages score lower on math tests than children from white monoracial marriages (b = -.427, p < .001). This provides evidence for Hypothesis 1a. Model 1 also suggests that children from white-Hispanic marriages score higher on math tests than children from Hispanic monoracial marriages (b = .336, p < .01), supporting Hypothesis 1b. However, I find no evidence for Hypothesis 1c, that children from white-Hispanic marriages score lower than children from white monoracial marriages.

Model 2 tests the influence of resources, adding the following controls: mothers' and fathers' education levels, mothers' and fathers' employment statuses, income, and parental involvement. By adding these critical resource controls, I find that the differences between children from Hispanic monoracial marriages and white monoracial marriages persist (b = -.229, p < .001). However, by accounting for resources, the difference between children from white-Hispanic marriages and Hispanic monoracial marriages is explained away. This indicates that white-Hispanic children do not hold a "middle position"—controlling for differences in resources—as they score similarly to children from white and Hispanic monoracial marriages. Additionally, findings fail to support Hypothesis 2 that the racial hierarchy would continue even in the presence of controls. Model 2 provides evidence for the importance of resources. Mothers' education is significantly associated with an increase in child math scores as children with mothers who attend some college and beyond outperform children whose mothers did not graduate from high school. Children with fathers who earn a bachelor's degree scored higher than children with fathers who did not graduate from high school (b = .287, p < .05). As expected, children with higher incomes score higher on math tests (b = .158, p < .001). Financial



resources play a critical role in child academic achievement. Interestingly, social resources, in the form of parental involvement, higher levels are significantly associated with lower math scores (see Table 3). I speculate this might be an effect of schools communicating with parents that their child is doing poorly and parents increasing their parental involvement accordingly (Dufur, Parcel, and Troutman 2013). Overall, resources play an important role in explaining away differences between white-Hispanic and Hispanic monoracial differences, yet monoracial white and Hispanic differences persist. While this does not provide evidence of the "middle position" that children from white-Hispanic marriages hold, it does suggest that white advantage to some degree influences access to resources that are associated with an increase in math scores. I find mixed evidence for Hypothesis 2 as white-Hispanic and Hispanic monoracial differences are explained by resources, yet white monoracial and Hispanic monoracial differences are not.

In Model 3, I add additional parent characteristics that may influence the degree that financial and social resources are available to families. Controlling for resources and additional parent characteristics marginally widens the achievement gap between children in monoracial Hispanic families and children in monoracial white families (b = -.251, p < .001). The biological status of the father, previous marriages, and parent immigration status do not have significant associations with math scores.

Model 4 tests theories of white advantage and resources in the presence of all other controls, adding the following child demographics: gender, age, and exposure to marriage. In the presence of all controls, children from Hispanic monoracial marriages score lower on math tests than children from white monoracial marriages, supporting Hypothesis 1a (b = -.236, p < .01). However, I fail to support Hypotheses 1b and 1c. Children from white-Hispanic interracial marriages do not hold a "middle position," as their math scores reflect no significant difference

compared to children from monoracial white and monoracial Hispanic marriages. As was true in previous models, resource controls are significantly associated with math scores. All other controls operated as expected. Children from any marriage configuration with a white parent score higher than children with no white parent. Overall, these findings imply that white parents, whether in monoracial or interracial families, bring more resources into the family, suggesting that access to white advantage in the home improves child academic achievement.

## [Table 3 about here]

#### Reading IRT Scores

Next, I estimate the effect of race, resources, and parent and child demographics on IRT reading scores. In Model 1, IRT reading scores regressed on the racial configuration of the post-birth marriage suggests that children from Hispanic monoracial marriages score lower on reading tests than children from white monoracial marriages, supporting Hypothesis 1a (b = -.561, p < .001). Model 1 also suggests that interracial white-Hispanic marriages score higher on reading tests than children from Hispanic monoracial marriages, supporting Hypothesis 1b (b = .444, p < .001). However, there is no significant difference in IRT reading test scores between children from white-Hispanic interracial families and white monoracial marriages.

Again, Model 2 controls for resources including mothers' and fathers' education, mothers' and fathers' employment statuses, income, and parental involvement. Controlling for resources, children from Hispanic monoracial marriages score lower on reading tests than children from white monoracial marriages (b = -.288, p < .001). Accounting for financial and social resources explains the difference in reading test scores between children from white-Hispanic marriages and children from Hispanic monoracial marriages. Mothers' and fathers' education levels are significantly associated with an increase in reading scores. In comparison to

children with a mother who did not graduate high school, children whose mother completed some college or beyond is significantly associated with higher scores on IRT reading tests. Children with fathers who graduated high school and beyond are significantly associated with higher reading scores than children whose father did not graduate high school. Fathers' post-grad experience has the largest influence on reading scores in terms of coefficient size (b = .771, p<.001). Additionally, mother employment has a significant positive association with child reading scores as children with mothers who report part- or full-time employment perform higher than children of mothers not in the labor force. Higher-income is associated with an increase in reading scores (b = .077, p < .05). Increased parental involvement is significantly associated with lower reading scores, consistent with math findings. Resources play an important role in explaining white-Hispanic and Hispanic monoracial differences. Although there is no evidence to support Hypothesis 1, a "middle position" for white-Hispanic marriages, the presence of resources explains reading differences between children from white-Hispanic and Hispanic monoracial marriages, which provides evidence of how white advantage influences access to critical resources. This limits support for Hypothesis 2 that the racial hierarchy would persist in the presence of resource controls as it persists for white monoracial and Hispanic monoracial differences, yet do not for white-Hispanic and Hispanic monoracial differences.

Next in Model 3, I add parent demographics thought to influence resource accessibility. Children from Hispanic monoracial marriages continue to score lower on reading tests compared to white monoracial marriages. The white-Hispanic reading achievement gap widens when controlling for parent demographics (b = -.294, p < .001). Model 3 also indicates that stability might influence child reading scores; a previous marriage negatively associates with reading tests (b = -.162; p < .001).



Model 4 adds child demographics, namely child gender, child age, and length of time the child is exposed to the marriage. In the presence of all controls, children from Hispanic monoracial marriages continue to score lower than children from white monoracial marriages on reading tests (b = -.198, p < .01). All else being equal, boys score slightly higher on reading tests than girls (b = .116, p < .05), and the older the child is the higher they score on reading tests (b = .05). .046, p < .001), consistent with prior research (Niederle and Vesterlund 2010). In Model 4, there is a small cohort effect as children from the ECLS-K 2011 survey score higher on reading tests than children from the ECLS-K 1998 survey (b = .135; p < .01). My findings show that the total difference in predicted math scores is 198 standard deviations and predicted reading scores is .237 standard deviations between children from white monoracial marriages and Hispanic monoracial marriages. A typical standard for practical significance in education research is a third of a standard deviation (Hill et al. 2008). While this difference may not be meet the standard for practical significance, the children in my sample are only 11 years old and prior research suggests this difference will increase over time widening the achievement gap, significantly impacting academic achievement (Cross 2019). Consistent with math scores, these findings suggest that white parents bring some form of advantage to their child in terms of academic achievement. Given the associations between resources and achievement, it may be that white parents have more access to those critical resources.

## [about Table 4 here]

### DISCUSSION

Numerous scholars have documented the benefits of children living in a two-parent married home compared to a single-parent home (Jeynes 1998; Brown 2004; Page and Stevens 2004). Consequently, policymakers continue to promote marriage as a solution to improve child



outcomes. However, many who support these policies fail to acknowledge how the racial inequality that permeates marriage opportunities and access to resources influences the potential advantage these marriages may confer. One critical component that I emphasized is white advantage and the subsequent human- and social-capital benefits it contributes to a family. I compare three different family configurations and the impact that white advantage, resources, and parent and child demographics have on child outcomes.

My findings demonstrate the persistence of white advantage in our contemporary U.S. society today. Contrary to Hypothesis 1c, there are no observable differences between test scores of children from white monoracial marriages and white-Hispanic marriages. In my descriptive analysis, parents in white monoracial marriages and white-Hispanic marriages had nearly indistinguishable education levels, employment statuses, and income, unlike parents in Hispanic monoracial marriages, for whom all of which were substantially lower. No observable test-score differences and similar access to economic resources in white monoracial and white-Hispanic marriages indicates that white advantage provides access to critical resources that influence child academic achievement. Furthermore, test-score differences between children from white-Hispanic marriages and Hispanic monoracial marriages were explained by controlling for resources, again suggesting that having a white parent influences the degree of advantage marriage may confer. These findings also support previous literature that highlights how white advantage and its benefits seemingly come at the cost of people of color (Massey 2001). Controlling for resources suggests that having at least one white parent can increase access to additional financial and social resources that improve child academic achievement. This indicates that the effects of white advantage may be powerful enough to penetrate the intimate setting of marriage and thus provide interracial families with the ability to overcome the



Hispanic disadvantage that children from Hispanic monoracial marriages may face. If so, improving child academic achievement is more than simply increasing family resources, it is a matter of racialized structural advantage and disadvantage.

My analyses also demonstrate further evidence of well-documented white-Hispanic inequality. Children in homes where both parents are Hispanic score lower on math and reading tests compared to homes with no Hispanic parentage. As discussed thoroughly above, Hispanic individuals are severely disadvantaged in economic and educational opportunities (Sanchez and Brock 1996). Even when accounting for key theoretical concepts believed to mediate white-Hispanic differences (e.g., resources), the gap persists. The unexplained residual gap between white and Hispanic achievement requires further explanation. As my findings align with prior research, scholars posit that racism can account for residual findings. (Farkas 2003; Lee 2002; Orfield and Yun 1999). These findings potentially demonstrate the underpinnings of discrimination in our society that work against minority families. With white individuals reaping the structural and interpersonal benefits of white advantage, Hispanic monoracial families are left with fewer opportunities and resources that positively influence child outcomes.

These findings may suggest to some that interracial couples do not experience challenges as a result of their unique family configuration. However, it is undeniable that a racialized hierarchy exists in America, resulting in the unequal treatment of interracial families (Dalmage 2000). With evidence that differences between children from white-Hispanic marriages and Hispanic monoracial marriages are explained by resources, this research emphasizes that in a world where children have parents with identical levels of education, employment, income, and parental involvement, there would be no racialized differences between child math and reading test scores. Unfortunately, this does not reflect the current state of American society. In reality,



children in post-birth marriages have parents—in comparison to the average adult American—with lower levels of education, higher unemployment rates, and below-average income (Ryan and Bauman 2016; Mundra et al. 2003; Manduca 2018).

Although these differences may seem insubstantial, I note that children in my sample are 11 years old. As long as differences in resources persist and racial advantage and disadvantage accrue, the gap will continue to widen. Policymakers cannot, in good faith, recommend marriage as a solution for every family, knowing that access to critical resources differs by racial couple configuration. Policymakers who advocate for marriage as a solution to the academic achievement gap should first address the structural disadvantages that impede child academic success. Not only is structural racism acting against these children and their families but refusing to acknowledge the achievement gap as a result of the racial hierarchy perpetuates its effects. For both math and reading outcomes, parents' education levels and income play a significant role in their child's academic achievement. This important finding provides a potential avenue to partially ameliorate child academic achievement outcomes, regardless of race.

Policymakers should focus on expanding programs that encourage Hispanic students to pursue post-secondary education. Many claim education is a great equalizer; however, if we are not providing individuals of all races and other minority groups the opportunity to seek higher education, it will not benefit them or their posterity. My findings indicate the importance of education as it highly associates with child academic achievement. Prioritizing equal education policies will not only benefit underprivileged students in their future employment opportunities but as evident in my findings, higher education will positively influence their future children's academic achievement.



While education may improve the state of minority families, efforts to increase education levels among Hispanic individuals may not address the conscious and unconscious racism that takes place in the workplace (Fox and Stallworth 2005). Mothers and fathers in white-Hispanic and Hispanic monoracial families experience unique challenges as a result of their minority status. Policymakers cannot shift blame to the individual when macro forces such as structural racism influence their degree of effectiveness. Focusing on enacting macro-level changes to address structural advantages and disadvantages may more successfully improve the lives of individuals from all backgrounds—including racial minorities.

## LIMITATIONS AND FUTURE RESEARCH

Several data collection practices limited the scope of this study. My study was primarily limited by small sample size. I speculate that there are additional analyses, such as interaction effects, that would provide useful information to better explain racialized differences and the influence of white advantage on the effectiveness of post-birth marriages. Yet, due to small cell-size, these additional analyses were not possible. Future researchers should explore other datasets that oversample for interracial couples.

The sample size also limited my ability to identify which parent is white in white-Hispanic interracial families. A gendered aspect would provide additional insight into how white advantage penetrates marriage and child-rearing. For example, the entrance of a white father may bring in greater financial resources, while the entrance of a Hispanic father may increase the likelihood that a family experiences discrimination. Additionally, research suggests that interracial household income varies by whether the husband is white or Hispanic, influencing the level of resources brought into the home (Kasperkevic 2012). Future researchers should explore



the gendered component of interracial marriages to determine the influence of white advantage entering the home via a white man marrying into the family.

Additionally, the ECLS-K datasets do not provide the ability to divide Hispanic groups into smaller ethnic groups. Research suggests that ethnic origin may influence earning potentials and discrimination, as some Hispanic individuals may be categorized as black and hold a double minority status (Denton and Massey 1989). Country of origin may also influence experiences of racism, disadvantage, employment status, earning potential, etc. (Jasso and Rosenzweig 1986; Bueker 2006).

Finally, these datasets have a limited number of post-birth white-black and white-Asian marriages. A similar comparison of children in white/black interracial or white/Asian households will yield different results. Black individuals encounter different forms of inequality, racism, and disadvantage (Manduca 2018). Conversely, Asians experience unique advantages as they hold a "model minority" status (Xu and Lee 2013). Asian immigrants report higher income and greater access to resources, yet their immigration rates are still high (Barringer, Takeuchi, and Xenos 1990; Zong and Batalova 2016). Future research should investigate differences between these additional racial groups to better understand white advantage and its influence on marriage and child outcomes. Another avenue for future research would include a longitudinal approach that may better explain counterintuitive findings such as the negative association of parental interaction and academic test scores.



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# **TABLES**

Table 1. Descriptive Statistics for IRT Scores, Parent Demographics, and Child Demographics; ECLS-K 1998 and ECLS-K 2011

Variable	Description and Range	Mean/Proportion	Standard Deviation
IRT Reading Score	Standardized scale	0.005	0.026
IRT Math Score	Standardized scale	-0.002	0.025
Parent Demographics			
Racial Configuration of the Post-birth Marriage	(0-2)		
White Monoracial		0.538	
White-Hispanic Interracial		0.083	
Hispanic Monoracial		0.379	
Mother's Education	(1-5)		
Less than High School		0.256	
High School Diploma		0.3	
Some College/Equivalent		0.343	
Bachelor's Degree		0.072	
Post Grad Experience		0.029	
Father's Education	(1-5)		
Less than High School		0.32	
High School Diploma		0.387	
Some College/Equivalent		0.205	
Bachelor's Degree		0.068	
Post Grad Experience		0.019	
Mother Employment Status	(0-3)		
Not in the Labor Force		0.323	
Looking for Work		0.060	
Part-Time		0.213	
Full-Time		0.404	
Father Employment Status	(0-3)		
Not in the Labor Force		0.054	
Looking for Work		0.055	



Part-Time		0.064	
Full-Time		0.827	
Income	Standardized	0.008	0.029
Parent Interaction	(1-5)		
Never		0.082	
Less than once a week		0.15	
One to two times a week		0.367	
Three to four times a week		0.283	
Five or more times a week		0.119	
Biological Father	(0-1)		
Stepfather		0.245	
Biological Father		0.755	
Previous Marriage	(0-1)		
Not Previously Married		0.766	
Previously Married		0.234	
Parents' Immigrant Statuses	(0-2)		
Neither Parent an Immigrant		0.651	
One Parent an Immigrant		0.229	
Both Parents Immigrants		0.12	
Child Demographics			
Child Gender	(0-1)		
Male		0.48	
Female		0.52	
Child Age	Reported in months	133.686	0.119
Length of Time Child Exposed to Marriage	Reported in years	3.587	0.052
Cohort	(0-1)		
ECLS-K 1998		0.319	
ECLS-K 2011		0.681	

*Notes:* N = 1,674.



Table 2. Descriptive Statistics for IRT Scores, Parent Demographics, and Child Demographics by Racial Configuration of the Post-birth Marriage; ECLS-K 1998 and ECLS-K 2011

	Means/Proportions				
Racial Configuration of the Post-birth Marriage	White Monoracial	White-Hispanic Interracial	Hispanic Monoracial		
IRT Math Score	0.191	0.055	-0.279		
IRT Reading Score Parent Demographics	0.220	0.104	-0.339		
Mother's Education					
Less than High School	0.118	0.151	0.474		
High School Diploma	0.319	0.288	0.276		
Some College/Equivalent	0.423	0.446	0.208		
Bachelor's Degree	0.106	0.072	0.025		
Post Grad Experience	0.034	0.043	0.017		
Father's Education					
Less than High School	0.195	0.153	0.533		
High School Diploma	0.421	0.496	0.313		
Some College/Equivalent	0.262	0.219	0.122		
Bachelor's Degree	0.093	0.107	0.027		
Post Grad Experience	0.030	0.026	0.006		
Mother Employment Status					
Not in the Labor Force	0.265	0.269	0.417		
Looking for Work	0.058	0.058	0.061		
Part-Time	0.231	0.226	0.186		
Full-Time	0.447	0.447	0.336		
Father Employment Status					
Not in the Labor Force	0.059	0.054	0.048		
Looking for Work	0.053	0.031	0.060		
Part-Time	0.048	0.056	0.090		
Full-Time	0.839	0.859	0.802		
Income	0.235	0.216	-0.367		
Parent Interaction					
Never	0.057	0.065	0.115		
Less than once a week	0.148	0.156	0.154		

One to two times a week       0.375       0.389       0.351         Three to four times a week       0.299       0.262       0.271         Five or more times a week       0.120       0.129       0.110         Biological Father       0.296       0.324       0.156         Biological Father       0.704       0.676       0.844         Previous Marriage       0.704       0.676       0.844         Previous Marriage       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       0.0197       0.223       0.290         Parents Immigrant Statuses       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Color         ECLS-K 1998       0.337       0.338       0.290         ECLS-K 20				
Five or more times a week         0.120         0.129         0.110           Biological Father         0.296         0.324         0.156           Biological Father         0.704         0.676         0.844           Previous Marriage         0.803         0.777         0.710           Previously Married         0.197         0.223         0.290           Parents' Immigrant Statuses         0.922         0.665         0.265           One Parent an Immigrant         0.074         0.320         0.428           Both Parents Immigrants         0.004         0.014         0.307           Child Demographics           Child Gender         Male         0.510         0.496         0.540           Female         0.491         0.504         0.460           Child Age         134.244         133.657         132.948           Length of Time Child Exposed to Marriage         3.832         3.712         3.211           Cohort           ECLS-K 1998         0.337         0.338         0.290	One to two times a week	0.375	0.389	0.351
Biological Father         Stepfather       0.296       0.324       0.156         Biological Father       0.704       0.676       0.844         Previous Marriage       Variables         Not Previously Married       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       Variables         Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.004       0.014       0.307         Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Three to four times a week	0.299	0.262	0.271
Stepfather       0.296       0.324       0.156         Biological Father       0.704       0.676       0.844         Previous Marriage       Not Previously Married       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Five or more times a week	0.120	0.129	0.110
Biological Father       0.704       0.676       0.844         Previous Marriage       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       Variety Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Biological Father			
Previous Marriage         Not Previously Married       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       Variation of Statuses       Variation of Statuses         Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Stepfather	0.296	0.324	0.156
Not Previously Married       0.803       0.777       0.710         Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender       Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Biological Father	0.704	0.676	0.844
Previously Married       0.197       0.223       0.290         Parents' Immigrant Statuses       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Previous Marriage			
Parents' Immigrant Statuses         Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Not Previously Married	0.803	0.777	0.710
Neither Parent an Immigrant       0.922       0.665       0.265         One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Previously Married	0.197	0.223	0.290
One Parent an Immigrant       0.074       0.320       0.428         Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Parents' Immigrant Statuses			
Both Parents Immigrants       0.004       0.014       0.307         Child Demographics         Child Gender       V       V         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Neither Parent an Immigrant	0.922	0.665	0.265
Child Demographics         Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	One Parent an Immigrant	0.074	0.320	0.428
Child Gender         Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Both Parents Immigrants	0.004	0.014	0.307
Male       0.510       0.496       0.540         Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Child Demographics			
Female       0.491       0.504       0.460         Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Child Gender			
Child Age       134.244       133.657       132.948         Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort         ECLS-K 1998       0.337       0.338       0.290	Male	0.510	0.496	0.540
Length of Time Child Exposed to Marriage       3.832       3.712       3.211         Cohort       ECLS-K 1998       0.337       0.338       0.290	Female	0.491	0.504	0.460
Cohort         ECLS-K 1998       0.337       0.338       0.290	Child Age	134.244	133.657	132.948
ECLS-K 1998 0.337 0.338 0.290	Length of Time Child Exposed to Marriage	3.832	3.712	3.211
	Cohort			
ECLS-K 2011 0.663 0.662 0.710	ECLS-K 1998	0.337	0.338	0.290
	ECLS-K 2011	0.663	0.662	0.710

Notes:

White Monoracial N = 900.

White-Hispanic Interracial N = 139.

Hispanic Monoracial N = 635.



Table 3. OLS Regression of Parents' Races and Standardized Math IRT Score; ECLS-K 1998 and ECLS-K 2011

Variable	Model 1	Model 2	Model 3	Model 4
Parent Demographics				
Racial Configuration of the Post-birth Marriage				
White-Hispanic Interracial	136††	14	125	118
Hispanic Monoracial	472***	229***	251**	236**
Mother's Education				
High School Diploma		.042	.037	.049
Some College/Equivalent		.234**	.234**	.244**
Bachelor's Degree		.513***	.497***	.508***
Post Grad Experience		.355*	.348*	.355*
Father's Education				
High School Diploma		.091	.102	.096
Some College/Equivalent		.156	.167	.153
Bachelor's Degree		.287*	.294*	.273*
Post Grad Experience		.279	.267	.263
Mother's Employment Status				
Looking for Work		.017	.013	.015
Part-Time		.088	.096	.105
Full-Time		023	003	.0002
Father's Employment Status				
Looking for Work		28	295	303
Part-Time		124	129	135
Full-Time		.053	.047	.044
Income		.158***	.154***	.151***
Parental Involvement				
Less than once a week		.08	.088	.086
One to two times a week		106	107	106
Three to four times a week		371***	371***	368**
Five or more times a week		456***	462***	447**
Biological Father			.091	.077
Biological Father			087	011

Parents' Immigrant Statuses				011
One Parent an Immigrant			048	051
Both Parents Immigrants			.118	.103
Child Demographics				
Child Gender				125**
Child Age				.007
Length of Time Child Exposed to Marriage				.018
Cohort	.039	0.059	.092	.106

Notes: N=1,674.

Comparison to White Monoracial Families: \*p < .05. \*\*p < .01. \*\*\* p < .001. Comparison to Hispanic Monoracial Families: †p < .05. ††p < .01. †††p < .001.

Comparison groups: Less than High School Diploma, Not in the Labor Force, Never Involved with Child, Stepfather,

First Marriage, Neither Parent an Immigrant, Male, ECLS-K 1998.

Table 4. OLS Regression of Parents' Races and Standardized Reading IRT Score; ECLS-K 1998 and ECLS-K 2011

Variable	Model 1	Model 2	Model 3	Model 4
Parent Demographics				
Racial Configuration of the Post-birth Marriage				
White-Hispanic Interracial	116†††	115	121	081
Hispanic Monoracial	561***	288***	294***	198**
Mother's Education				
High School Diploma		.122	.114	.141*
Some College/Equivalent		.275***	.266***	.281***
Bachelor's Degree		.441***	.417***	.444***
Post Grad Experience		.439**	.421**	.424**
Father's Education				
High School Diploma		.141*	.144*	.129*
Some College/Equivalent		.29***	.298***	.24**
Bachelor's Degree		.466***	.461***	.371**
Post Grad Experience		.771***	.769***	.731***
Mother's Employment Status				
Looking for Work		009	011	0.05
Part-Time		.178**	.183**	.209**
Full-Time		.148*	.161**	.152**
Father's Employment Status				
Looking for Work		016	035	072
Part-Time		055	066	046
Full-Time		.003	003	022
Income		.077*	.076*	.091**
Parental Involvement				
Less than once a week		.093	0.100	.076
One to two times a week		.005	.007	.002
Three to four times a week		276**	271**	249*
Five or more times a week		405**	405**	363**
Biological Father			.001	.001
Previous Marriage			162**	044
Parents' Immigrant Statuses				



One Parent an Immigrant			.042	007
Both Parents Immigrants			.013	035
Child Demographics				
Child Gender				.116*
Child Age				.046***
Length of Time Child Exposed to Marriage				.026
Cohort	.028	.057	.057	.135**

*Notes:* N=1,674.

Comparison to White Monoracial Families: \*p < .05. \*\*p < .01. \*\*\*p < .001. Comparison to Hispanic Monoracial Families: †p < .05. ††p < .01. †††p < .001. Comparison groups: Less than High School Diploma, Not in the Labor Force, Never Involved with Child, Stepfather,

First Marriage, Neither Parent an Immigrant, Male, ECLS-K 1998.

