



# *Maryland Population Research Center*

WORKING PAPER

## How Do They Do It? The Immigrant Paradox in the Transition to Adulthood

PWP-MPRC-2016-004

February 2016



Authors:

**Sandra L.  
Hofferth**

**Ui Jeong  
Moon**  
University of  
Maryland



**How Do They Do It? The Immigrant Paradox in the Transition to Adulthood**

Sandra L. Hofferth

Department of Family Science

and

Ui Jeong Moon

Maryland Population Research Center

University of Maryland

November 23, 2015

Support was provided through a Center grant, R24 HD041041 from the National Institute of Child Health and Human Development.

## How Do They Do It? The Immigrant Paradox in the Transition to Adulthood

### Abstract

How do children of immigrants consistently outperform children of native-born U.S. parents, in spite of lower familial resources? Using the Transition to Adulthood Study of the Panel Study of Income Dynamics, children of immigrant and native-born parents completing high school in 2005-13 are followed they move into the young adult years. Children of immigrants are more likely to enroll in college, be employed or in school, and less likely to have a criminal record as young adults or to have a child than children of nonimmigrants. This is not a result of immigrant parentage but due primarily to greater parental educational expectations; immigrants enjoy a differential return to parental expectations for boys' college enrollment as well. Reading skills and activity patterns in the secondary school years also contribute to better outcomes. Children of immigrants are better able to translate their reading comprehension skills to college or employment later on.

Key words: Immigrants, children, transition to adulthood, education, employment, extracurricular activities, culture

Immigrant children embody social mobility far more than any other group. Children of immigrants are more successful not only compared to their own parents but also compared to youth from similar racial/ethnic backgrounds whose parents were born in the U.S and whose families have more human capital, economic resources, and language facility (Garcia-Coll & Marks, 2012; Hernandez, Denton, Macartney & Blanchard, 2012; Perreira, Harris & Lee, 2006; Portes & Zhou, 1993). In 2009 about 51% of 18-21 year olds who were high school graduates were enrolled in college (U.S. Census Bureau, 2012). Adjusted to all youth 18-21, 80-90% of whom completed high school, we expect about 40% of all youth 18-21 to be enrolled in college. The Children of Immigrants Longitudinal Study (CILS) showed that, by age 24-25, 37% of male and 46% of female immigrants who came to the U.S as children or were children of immigrants were enrolled in or had completed a bachelor's degree (Feliciano & Rumbaut, 2005). College is not the only option, of course. Among youth 16-24 years of age, 77% of high school graduates and 65% of high school dropouts were employed (U.S. Census Bureau, 2012). The CILS also showed that 80% of children of immigrants were employed either full or part-time at ages 24-25 (Rumbaut, 2005). Rates of incarceration of immigrant children were less than half those of natives, 1.25% compared with 3.5% (Rumbaut, 2005). The finding that, for most immigrant groups, children's accomplishments exceed not only those of their parents but nonimmigrant peers as well is known as the immigrant paradox (Pong & Landale, 2012).

Understanding the paradox of greater achievement among children of immigrants relative to the children of native-born parents entails understanding the strengths that immigrant families bring and the potential risks incurred in assimilation to the American way of life. Early studies focused primarily upon the association of immigrant generation, race/ethnicity, and family background with children's accomplishments (Glick & White, 2003) and recent studies have

added parental expectations, academic achievement, and school engagement (Greenman 2013; Hao & Woo, 2012; Perreira et al., 2006). We add activity patterns in the high school years as factors that contribute to children's life chances. Spending time on homework, playing video and computer games, and regular involvement in sports may integrate children into the school and community, distinguish immigrant from nonimmigrant children's pathways through school, and explain later success.

As have others, we examine both positive and potentially detrimental outcomes in young adulthood: high school completion, college enrollment, involvement in school or work, criminal activity, and childbearing. In contrast to previous research, this study has access to data on the full socioeconomic background and school experiences of children of immigrant and nonimmigrant parents from childhood through high school. Studies of the high school to young adulthood transition of immigrants, such as the CILS, have focused on cohorts coming of age in the 1990s (Feliciano & Rumbaut, 2005) but the performance of children of immigrants appears to be stronger in recent compared to earlier cohorts (White & Glick, 2009). The present study utilizes national data from a recent cohort of immigrant youth age 17 to 26 who completed high school during the period from 2005-2013. First collected when children were 10 to 17, subsequent interviews follow them through high school into young adulthood, comparing them to nonimmigrant youth. It identifies activity clusters through the adolescent years. It then quantifies the contribution of immigrant parentage to parental expectations, academic achievement, and activity choice and examines the fraction of young adult success attributable directly to immigrant parentage or indirectly through these mediators. Finally, it asks whether the influence of these mediators on the transition to adulthood differs for children of immigrants and natives.

## **Background and Hypotheses**

Based upon criteria that include finishing school, getting a job, avoiding trouble with the law, starting a family, and becoming self-sufficient, the transition of youth into adult roles and responsibilities between 18 and the mid 20s, “emerging adulthood,” has been lengthening (Arnett, 2004). In 1980 40% were married; today that fraction is cut in half. Reversing declines of the 1950s, the proportion of young men and women in their mid-20s living with their parents has increased; a quarter of white males age 25 lived at home in 2007 compared to one-fifth in 2000 and only about 13 percent in 1970 (Settersten & Ray, 2010). In the past, youth lived at home until they completed their schooling but post-secondary schooling is less and less likely for young men, who are falling behind their female counterparts. Access to good jobs for those without higher education has been restricted by reductions in the manufacturing sector (Settersten & Ray, 2010). Limited work opportunities for non-college youth limit self-sufficiency. As one indicator of this lag, in 2013 18% of young men 20-24 were neither enrolled in school nor working, compared with 11% in 2000; about the same proportion of women 20-24 (19%) were neither enrolled in school nor working in 2013 as in 2000 (Federal Interagency Forum on Child and Family Statistics, 2014).

Although transitions during this period of emerging adulthood have been studied for some time, they have been altered by a new set of circumstances: the increased fraction of young adults whose parents were immigrants. In 2008 almost 30% of the 68 million young adults 18-34 were foreign born or had a foreign born parent (Passel, 2011). In addition, 17 million children under age 18 who are immigrants or children of immigrants will be transitioning to adulthood in the next two decades. Their transitions to adulthood differ from those of youth

whose parents were born in the United States for reasons that include wide disparities in parental human capital, family and neighborhood context, varied cultural traditions, different opportunities during the school years, and differential access to citizenship (Rumbaut, 1996; Rumbaut & Komaie, 2011). As one example, young men and women born in the U.S. to foreign-born parents are more likely to live at home than those born to native-born parents (Berlin, Furstenberg & Waters, 2010). We anticipate increased heterogeneity in pathways to adulthood for recent cohorts of youth.

Besides socioeconomic disadvantage, of the 20 million young adults with immigrant parents in the U.S. in 2008, some 6 million young adults lacked legal status and, therefore, had limited access to both in-state tuition for higher education and to employment in many sectors of the economy (Passel, 2011; Rumbaut & Komaie, 2011). After June 15, 2012, immigrants under age 31 who arrived illegally as children (<16) and were currently enrolled in school, a high school graduate or GED recipient, had received an honorable discharge from the armed forces, and had no criminal record became eligible for deferred action (DACA) for up to two years and then eligible for work authorization (<http://www.uscis.gov/childhoodarrivals>). Thus recent cohorts of undocumented immigrant children have access to more opportunities than their predecessors (Greenman & Hall, 2013).

The primary focus of this research is to examine these markers of success for immigrant young adults in comparison to their normal peers in this “new normal” period of emerging adulthood. It is important to understand what it is about immigrants’ family background and school-year experience that leads to success in young adulthood relative to that of natives (Tseng, 2006; Feliciano & Rumbaut, 2005; Perreira et al., 2006). How *do* they do it? *What is linked to immigrant success?*

Three explanations have been proposed for the successes of children of immigrants compared with children of natives: 1) the human, financial, and social capital parents bring with them, 2) the cultural capital of the family, and 3) the school and community context in which they are received (Alba & Nee, 2003; Perreira et al., 2006; Portes & Fernandez-Kelly, 2008; Yoshikawa & Way, 2008). Human capital is represented by parental schooling, which is linked to economic and financial resources (Perreira et al., 2006; Portes & Zhou, 1993; White & Glick, 2009). With lower resources in terms of parental education and income and more children sharing them, immigrant children are usually disadvantaged. In spite of low resources, some parents have expectations that their children will succeed and push their children in any ways they can, regardless of resources (Perreira et al., 2006). Research has found such cultural capital to be strongly linked to children's later schooling success (Hao & Bonstead-Bruns, 1998). Finally, children's trajectories are influenced by the school and community context, including extracurricular and social activities in the school years (Okamoto, Herda & Hartzog, 2013). We discuss, in turn, how each of these leads to the greater success of children of immigrants.

#### *Human, Financial, and Social Capital for the Successful Transition of Children into Adulthood*

Indicators of resources include education, income, and family size. With some exceptions (first generation Cuban, Chinese, and Filipino immigrants, for example), immigrant parents have low levels of education (social capital) on arrival and most immigrant families exhibit substantial economic disadvantage compared to native families as a result (Brandon, 1999; Hofferth, 1999; Greenman & Xie, 2008). However, immigrant families have an advantage in terms of social capital, the relationships within and between families (Coleman, 1988). Families tend to be stably headed by two married parents (Child Trends, 2014). Extended family

structures in which grandparents live with the family may play an important part in monitoring children, reducing gang and delinquent peer influence (Warner, Fishbein & Krebs, 2010).

Once differences in socioeconomic background are controlled, the achievement of children of most immigrant groups has been shown to exceed that of comparable children whose parents were not immigrants (Fuligni, 1997; Kao & Tienda, 1995; Perreira et al., 2006; Sastry & Pebley, 2010). As an example, several studies indicated that almost one-quarter to one-third (31%) of Hispanic/Mexican-born children dropped out before completing high school compared with 12-20% of native-born children (Greenman & Xie, 2008; Perreira et al., 2006; Rumbaut, 2005). After equalizing families on socioeconomic circumstances, however, the first generation had the lowest proportion of dropouts and the third generation the highest proportion of dropouts, with the second generation in-between the two (Perreira et al., 2006) or the nativity difference disappeared (Greenman & Xie, 2008).

#### *Relationship between Cultural Capital and Children's Success*

Considerable research has been conducted since the immigrant paradox was first documented, yet it is still not well understood. Some attribute it to parental beliefs and values, cultural capital, that favors mobility. This includes greater parental efforts or “optimism” that fuels the accomplishments of children of immigrants compared to children of nonimmigrants (Kao & Tienda, 1995). Parental beliefs and values favoring higher education or focusing on hard work rather than social skills could explain greater achievement in first and second compared with later generation children (Feliciano, 2005; Glick, Bates & Yabiku, 2009).

What is this cultural capital? Culture has been referred to as a “toolkit of habits, skills and styles” (Swidler, 1986). Although Gans (2014) points to ethnic organizations, ethnic practices and ethnic identity as aspects of culture related to ethnicity, ethnicity and culture are

not the same. We conceptualize culture as a set of values, beliefs, and expectations that are shared within a group (Tudge, Doucet, Odero, Piccinini & Lopes, 2006). There may be cultural values and assimilation processes shared by immigrants. In assimilation the differences between outcomes of children of immigrant compared with children of native-born parents decline; they may improve or worsen depending upon the initial discrepancy (Greenman & Xie, 2008).

Whether parents were born in the U.S. and are native-born or were born in another country is an important indicator of how accustomed the parents are to an American life style. Parental language spoken in the home is another potential indicator of acculturation; those who are less English language proficient are less acculturated than those who are proficient (Greenman & Xie, 2008).

Parental expectations are a major manifestation of cultural capital for children prior to high school. Research supports parental expectations as key to children's success (Pong & Landale, 2012; Feliciano & Rumbaut, 2005). Parents communicate their expectations through three mechanisms: role modeling, direct provision of experiences, and messages they give regarding their children's competence (Simpkins, Fredericks, Davis-Kean & Eccles, 2006). Immigrant parents may demonstrate priorities through their own choices (schooling, occupation, activities). Immigrant parents who may have been unable to attain a high level of education in their home country may directly communicate their achievement expectations (Hao & Bonstead-Bruns, 1998). They may also support children's activities that require parental consent, involvement, and financial support. Parents may establish a college saving account, encourage participation in academic clubs and homework, engage tutors, and reinforce their belief that the child can do the work. Communicating expectations is likely to raise the expectations of the child. A recent field experiment demonstrated that raising self-confidence and reducing race-

stereotyped beliefs was sufficient to increase test scores among minority seventh grade students (Cohen, Garcia, Apfel & Master, 2006).

Beliefs and values could be related to the same values that brought immigrants to the U.S. in the first place or they could be related to culture in their country of origin and migration experience. Immigrant families have been shown to be somewhat better off than others in their home country before coming to the United States (Akresh & Frank, 2008; Crosnoe & Turley, 2011). Cultural practices may be dependent on the race and ethnicity as well as the nativity of the parents. Race/ethnicity and nativity are not totally separable; because of the historical timing of immigrant arrivals, for example, a much higher proportion of Hispanics and Asians are immigrants than Europeans and African Americans (Tseng, 2006). More importantly, culture does not necessarily mean ethnicity. The same immigrant advantage has been shown to accrue to Black immigrants and to immigrants of other racial/ethnic origins (Thomas, 2009). A comparison across African American children indicated that children of immigrants were much less likely to be delayed in their educational completion for their age than children of natives (Thomas, 2009). A similar result was found for Chinese immigrants in Hong Kong; even with the same cultural background, immigrants fared better than natives (Zhang, 2014).

#### *School, Peer and Community Capital*

A third potential explanation for immigrant success is that immigrant families may select pathways through the school years that have more potential for children's later success in the transition to adulthood than do nonimmigrant families (Nicholas, Stepick & Stepick, 2008). Recent research suggests that children of immigrants, particularly those from Mexico, experience an initial disadvantage in readiness for school (Crosnoe & Turley, 2011), a gap that diminishes over the elementary school years (Glick & Hohmann-Marriott, 2007) such that, by high school,

immigrant students are higher achievers than their nonimmigrant peers (Fuligni, 1997; Kao & Tienda, 1995; Pong & Landale, 2012). There are several potential factors related to the apparent catch-up among immigrant children. First, they appear to have fewer behavior problems; their behavior is not as rated as problematic by teachers as that of children of third and higher generation parents (Crosnoe & Turley, 2011). This may improve their chance of learning, their grades, and their chance of getting help from adults when needed. One study found that students with fewer behavior problems were more likely to enter college (Feliciano & Rumbaut, 2005). Second, they spend more time studying; spending more time studying has been linked to higher grades in math and English classes in high school (Fuligni, 1997) and to higher achievement test scores (Cooper, Robinson & Patall, 2006). Finally, they may choose different activities; strategic choice of course-work and extracurricular activities during high school may increase their chances of successfully completing high school and entering college (Tseng, 2006). Hao & Woo (2012) found that children of immigrants were more likely to enroll in advanced math and science courses and to pass a higher proportion of courses; ultimately, they completed a greater number of years of schooling in young adulthood. Higher aspirations were linked to choosing courses with higher math/science content (Tseng, 2006).

For those for whom academic achievement is not an option, however, alternative pathways need to be found. Parents may encourage children's participation in social activities such as religious groups or sports (Tudge et al., 2006). Through involvement with peers or extracurricular activities, children become part of a community (Tudge et al., 2006). Parents believe that through sports children learn to work with others, become physically fit, and develop skills that may result in later success in education and in life (Hofferth, Kinney & Dunn, 2009). Youth who build ties to adults other than parents wind up better off than those whose ties are

restricted to home and family (Larson, 1994). These ties provide not only important supports and mentoring but also ties to the labor market through social networks (Settersten & Ray, 2010). Families with less financial, human, and social capital, however, may be able to support participation only in extracurricular activities not requiring investment in transportation, fees, and uniforms. For this reason children from immigrant families may participate less in extracurricular activities than children of native born parents (Okamoto et al., 2013). Immigrant children may also assist in the work of the family by caring for younger siblings or doing other types of household chores while parents engage in paid work (Fuligni & Pederson, 2002).

An important outcome is the ability to support oneself financially through employment. Arnett argues that self-sufficiency is indeed the definition of adulthood (Arnett, 2004). Many immigrant youth engage in paid work at an early age to support the family and provide an early boost into the work force. Family integration into their ethnic community could benefit the child's later achievement (Kroneberg, 2008) by leading to early entry and success in occupation and employment but could also lead to early family formation (Rumbaut, 2005). Employment is not often considered but is an important part of the transition to adulthood especially for Mexican-origin youth (Bachmeier & Bean, 2011; Landale, Oropesa & Llanes, 1998)

#### *Relationship Between Out of School Activities, Achievement, and Later School Success*

Multiple studies have linked extracurricular activity participation such as academic clubs to higher academic success (Eccles & Barber, 1999; Farb & Matjasko, 2012) through reinforcement of academic goals. Probably the most widely reported finding is a link between sports participation and academic success. Students who were involved in extracurricular sports activities demonstrated higher math test scores and significantly lower rates of dropping out (Glick & Hohmann-Marriott, 2007; McNeal, 1995), although there is some evidence that sports

participation is also associated with increased alcohol use (Farb & Matjasko, 2012). The mechanism appears to be school engagement, including behavioral, emotional, and cognitive components (Fredricks, Blumenfeld & Paris, 2004). Students who were involved in extracurricular activities were better integrated into their school and more engaged and involved with other students and their adult mentors (Larson, 1994). However, this research has not been conducted on immigrant groups. It is unclear whether sports and social activities are an avenue to the same types of engagement for immigrant as for nonimmigrant children (Okamoto et al., 2013; Pong & Zeiser, 2012). In addition, previous studies have focused on extracurricular activities to the exclusion of informal activities in which children engage at home, such as studying, television viewing, and household work (Linver, Roth & Brooks-Gunn, 2009; Nelson & Gastic, 2009). Children of immigrants participate less in formal activities than children of native-born parents so their activities may not be counted (Simpkins, Price, Quach, Starbuck & Delgado, 2012). Several studies (Feliciano & Rumbaut, 2005; Jacob, 2002) showed that students' homework hours were positively linked with matriculation in college. Finally, increased use of electronic media has not been widely examined with regards to later achievement. One study found that more television viewing was negatively linked to a lower prestige of the occupation expected at age 30 (Feliciano & Rumbaut, 2005). Computer use has been linked to greater academic achievement overall (Hofferth & Moon, 2011), and new research suggests that early access to a computer at home is linked to increased growth in immigrant children's math skills in elementary school (Moon & Hofferth, 2015). It is important to broaden the definition of out-of-school activities.

#### *Achievement Test Scores*

Accomplishment in school is critical to college admission. GPA has been linked to a higher likelihood of entering/completing college (Feliciano & Rumbaut, 2005). There is also a strong association between higher math and reading test scores in the sophomore year in high school and completion of a four-year college degree (White & Glick, 2009). Test scores may be an indicator of either the intelligence of the student or reflect his/her scholarly investment in studying and reading. Tseng (2006) found that estimating one's English proficiency as low was associated with choosing a math/science curriculum. Immigrant students estimated their chances in math/science would be better than in liberal arts even though many immigrant students tested well on verbal achievement. Test scores may also be linked to greater success in the labor force. Higher order thinking – including problem solving, critical thinking and decision-making — is a skill highly valued by employers (Lippman, Byberg, Carney & Moore, 2015).

*Other Factors linked to Success in the Transition to Adulthood*

Gender clearly differentiates pathways through adolescence and into adulthood. Compared with boys, girls receive better grades (Fuligni, 1997), are more likely to graduate high school (82.5% of female vs. 78.1% of male 18-21 year olds), and are more likely to enroll in college immediately afterward (74% vs. 66% of 16-24 year olds who graduated high school in the previous year) (U.S. Census Bureau, 2012). In 2012, 44.5% of girls compared to 37.6% of boys 18-24 were enrolled in degree-granting institutions. Boys and girls make different activity choices in their high school years, which may impact their educational opportunities (Cho, 2007; Crosnoe & Trinitapoli, 2008; Jacob, 2002). Finally, immigrant youth begin childbearing earlier; immigrant girls are more likely to have children and they have them earlier than native-born females (Rumbaut, 2005). In contrast to earlier research, besides including gender as a control, we also differentiate pathways by gender.

## *Hypotheses*

Few studies have gone beyond family background and academic achievement to examine mechanisms associated with immigrant success during the transition from high school to young adulthood. In this paper we examine how family background, parental expectations, achievement, and extracurricular activities during high school operate to explain the advantages or disadvantages of children of immigrant families in transitioning beyond high school into young adulthood. Our model is shown in Figure 1. We hypothesize that immigrant generation will be associated with young adult outcomes – high school completion, college attendance, involvement in school or work, noninvolvement in criminal activity, and a lower chance of having a child. Our primary interest lies in examining the extent to which parental expectations, cognitive achievement, and school activities help explain differences in these outcomes, controlling for measures of human, financial, and social capital. We hypothesize:

1. Children of immigrants will be more likely to successfully graduate from high school, enter college, be engaged in work/study, not have a criminal record, and be childless than children of native-born parents.
2. Children of immigrants will have higher parental expectations for their schooling, more focus on academic rather than nonacademic learning pathways during the school years, and higher reading test scores than children of natives.
3. Greater parental expectations for schooling, academic activity patterns, and higher test scores will be associated with greater young adult high school completion, college attendance, a greater chance of working or studying, a lower chance of a criminal record, and a lower chance of having a child.

4. The influence of parental expectations/activity patterns/reading achievement will vary for children of immigrants and nonimmigrants. Parental expectations, for example, will make more of a difference for immigrant than for nonimmigrant children's outcomes as young adults.

[Figure 1 about here]

## **Data and Methods**

### *Data*

The current study draws upon data from 1997 through 2013 from the Panel Study of Income Dynamics (PSID), an ongoing longitudinal nationally representative survey that has gathered detailed socioeconomic and demographic data from individuals since 1968 (Fitzgerald, Gottschalk & Moffitt, 1998; Panel Study of Income Dynamics, 1999). In 1997, the PSID added a refresher sample of 441 immigrant families, conducting interviews in Spanish, English, and other languages. Either the head, wife, or a parent had to have arrived in the United States after 1968. Also in 1997, the PSID inaugurated the first Child Development Supplement (CDS I), which was administered to the primary caregivers of children aged 0-12 and up to two of their children, who were then assessed using standardized measures. Interviews were conducted in the preferred language of the parent respondent and assessments were conducted in either English or Spanish. The first wave of the CDS included 3,563 children from 2,380 families, with a response rate of 88%. These same families were recontacted approximately 5 years later. In the second wave (CDS II), conducted in 2002 and 2003, 2,907 out of 3,191 eligible children and adolescents aged 5-18 completed interviews; this represented a response rate of 91%. A third wave was conducted in 2007-2008 when the youngest were 10 years of age. All children who had reached age 18 or who had completed high school were interviewed for a study of the

Transition into Adulthood (TAS) in 2005, 2007, 2009, 2011, and 2013. This instrument collected information on the current activities and well-being of these young adults, and was used to determine the outcomes of their transition to adulthood. From a total sample of 610 immigrant children first interviewed in 1997 or 2002, 61% had reached age 18 or graduated from high school by the 2013 TAS interview.

This study focuses upon 185 first-generation (1.5 generation) and second-generation children age 10 - 18 in 2002-3 and their families and 189 comparison children from nonimmigrant families chosen from the core, all of whom were followed from childhood into young adulthood (ages 17-26; under 2% were age 17) and were interviewed as part of the TAS. The comparison group consists of all families of nonimmigrant Hispanic and Asian origin who were in the main sample and a random sample of the remaining families, mainly native-born White and Black families. Random sampling on the control group does not alter the findings but was used to maintain comparable sample sizes and precision of estimates for immigrant and nonimmigrant groups (Szklo & Nieto, 2007). The majority of the Hispanic families (74 percent) were from Mexico and we refer to all as Latinos. We pooled data from the 1997, 2003, and 2008 waves to maximize the number of immigrant children we were able to include and to reduce potential selection bias. We included only those children who had time diary information (81%), and selected only biological, step-, or adopted children, or the grandson/daughter of the head of household; 374 children remained in the final sample. Of the key analytic variables, 0.8% were missing parental education level, 0.3% were missing parent educational expectation, and 0.3% were missing whether they had a child. There were no missing data on family size, family income, or family structure. A missing rate of 5% or less is considered inconsequential (Schafer, 1999).

### *Young Adult Outcomes*

From the Transition to Adulthood supplement, we included five dichotomous indicators of attainment of adult status: 1) whether the youth had graduated from high school or received a GED, 2) whether the youth was enrolled in college, 3) whether the youth was productively engaged by being either employed or in school, 4) whether the youth had been arrested, and 5) whether the youth had given birth to or fathered a child.

### *Generation*

Children with an immigrant background were defined as those born to at least one foreign-born parent. We do not distinguish between children born in or outside the U.S.; our small sample of foreign-born children arrived before age 12 and in most respects are like generation 2 (often called 1.5). Initial analyses distinguished first from second generation children; however, sample sizes were too small for precise estimation and the results were similar; therefore, this paper focuses on the comparison of children of immigrant parents to children of native-born parents, regardless of nativity of the child. Generation was determined by questions that asked where each of the child's parents and grandparents was born and where each child was born. Families were identified by in-person household screening in areas of high immigrant concentrations (Panel Study of Income Dynamics, 1999). A screener was used to establish the birthplace of each respondent and each respondent's parents so that country of origin as well as race/ethnicity is known. Because of the way in which the study sample was drawn, the immigrant parents cannot have been in the U.S. more than 29 years and the average length of time in the U.S. was 11 years.

This study asks parents whether they were undocumented or not. Even though this is an underestimate, about 19% of the children of immigrants in our sample had undocumented

parents. Unfortunately, again, because sample sizes were small and documented status only applies to immigrants, we were unable to incorporate information about documented status into this research. Because of their inclusion, however, this is a representative sample of immigrant youth from families with both documented and undocumented legal statuses.

### *Background Variables*

Individual Characteristics. Two individual characteristics that might influence the child's achievement, gender and age, were used as control variables. Child gender was coded as 0 for boy and 1 for girl. Children's age in young adulthood ranged from age 17 to age 26 whereas their age in childhood was 10 to 18.

Socioeconomic status. Family SES includes parental education, family income, and family size. Parental education was determined primarily by the mother's education, but the father's education was used for single father families. Children of parents with some college education or more were compared with children of parents who had less than a high school education or who had completed high school. Poverty ratio was defined as the ratio of household income to the USDA needs standard for a family of that size and composition. Family size refers to the number of children in the household and family structure refers to whether or not the child was living with a single parent.

### *Culture*

Expectation for Child's Schooling. In the first survey wave when the child was under 13, the child's parent was asked how much schooling he or she expected that the child would complete; responses included high school graduation, some college, college graduation, and graduate or professional degree. Few reported that their expectation was "some college" and

fewer had expectations only for a high school education. Consequently, this was coded into two categories: (1) graduate from a four-year college (or more) versus (0) not graduate from college.

Race/ethnicity. Dummy variables were created for each racial/ethnic group. Race was determined by the race/ethnicity of the child in the household, as reported by the primary caregiver. If that was not available, we assigned the ethnicity of the household head. In this study, Black and Latino groups were compared to those of European background or White, unspecified. Because of the small number of Asians in the third generation and their similarity to Whites, Asian groups were included in the reference category. In two cases there was a discrepancy between race/ethnicity of the parent and child; in these cases, the race/ethnicity of parent was selected; these may have been adopted children and the background of the parent was of more importance in our model.

#### *Children's Activities.*

In each year in which the Child Development Supplement was administered, the study collected diaries on the type, duration, and location of the children's activities. Two time diaries were collected, one for a randomly chosen week day and one for a randomly chosen weekend day. This 24-hour record of children's activities, beginning at midnight, was completed by the parents of young children, or by the parents and child together in the case of older children and adolescents, noting the start and end-times for these activities, the people who accompanied the child, and the location of the activities. Excluding secondary activities, the total hours per child for each time diary amounted to 24.

Tallies for the total time children spent on computer games and video games were drawn from time spent on a set of computer-related activities and video game play that occurred at home. Other computer-related activities accounted for little of the time spent (e.g., web surfing,

email, and shopping) (Hofferth & Moon, 2011). Television viewing was children's most frequent extracurricular activity. Children's reading time included time spent reading books, newspapers, and magazines, as long as this reading was not for homework, but rather for pleasure (Hofferth & Moon, 2011). The time spent on study and homework, either using the computer or not, was categorized as study time. Time spent on household chores included indoor activities such as setting the table, doing dishes, or making beds, and outdoor chores such as weeding or trash cleanup. Visiting time included socializing with people other than the child's own household members, both at home and at places other than the child's home (e.g. at a party). Time spent on sports included lessons, practices, and sports matches such as football, baseball, and gymnastics in which the child participated; they were not distinguished by sponsorship, such as school. Music included time spent playing, practicing, or taking lessons in a musical instrument or voice. Because of their young age, we could not include employment. In sum, the following eight children's activities were used for outcome analysis: computer and video game play, television viewing, reading, studying, household work, visiting, sports participation, and music.

Although previous research, including our own, has examined the association between total time spent in a single activity with an outcome (such as achievement), controlling for time in other activities, we no longer believe that approach is appropriate. Because time has to equal 24 daily hours, most activities are negatively associated; doing more of one means less time for another. For example, spending more time watching television or playing on the computer is negatively associated with time playing sports {Hofferth 2010}. A positive association is informative, therefore, because it means activities are complements not substitutes. For example, children who spent more hours using the computer for studying also spent more time reading

(Hofferth, 2010). A recent analysis of 18 different out-of-school activities (boys and girls together) identified 5 activity clusters: Social (39%), All-around (academic as well as structured) (15%), Unstructured Recreation (18%), Employed (11%), and Study (18%) (Nelson & Gastic, 2009). A study focused solely on structured extracurricular activities found that participation in sports plus other structured activities was more valuable for self-concept, school connectedness, and peer communication than was involvement in sports alone (Linver et al., 2009)

In keeping with previous research, we hypothesized that the pattern of activities was more important than specific individual activities. In particular we were interested in the highly engaged pattern with involvement in both academic and extracurricular activities as opposed to a pattern of involvement in social activities and visiting without academics, but were also interested in the new pattern in which children spend considerable time with electronic media (Nelson & Gastic, 2009). No previous studies have incorporated gender, which is known to influence activity patterns.

### *Cognitive Achievement*

Children's cognitive achievement was measured using one subscale of the Woodcock-Johnson Revised Test: passage comprehension, a test that measures reading comprehension skills (Woodcock & Mather, 1989). The interviewers were trained and provided with the materials needed to administer this standardized test in the home to children age 6 and older. Because they lived far from population centers where interviewers were located, particularly in the Midwest, about 17% of the children were not assessed. Of those not assessed, a higher proportion were White than other race/ethnicities. Race/ethnicity is controlled in the analysis.

### *Analysis Plan*

In order to identify the most common patterns of activities in which children engaged, we first conducted a latent class analysis of children's activity participation. The small sample size did not permit us to incorporate information on the amount of time spent in the activity during the two diary days. Instead, activities were coded as "no participation" compared with "some participation" on either diary day. Using SAS PROC LCA macro {Lanza et al. 2015}, we tested models with two to eight latent classes. Each model was assessed by generating 500 random sets of starting values to avoid local maxima of the likelihood function. The three-class model was selected based on parsimony and improvement in fit, with a substantial decrease in  $G^2$  between models ( $\Delta G^2 = 29.38$ ,  $df = 10$ ,  $p < .01$ ), the smallest AIC (319.39) and BIC (340.43), and the highest entropy value (.89) indicating better classification of individuals into latent classes. Child's gender was added to test whether measurement varied for boys and girls. The model was run with all parameters freely estimated and then with all parameters constrained to be equal across child's gender. The significant difference in  $G^2$  statistic indicated that the item-response probabilities were not equal across gender ( $\Delta G^2 = 42.62$ ,  $df = 24$ ,  $p < .05$ ). Therefore, we separated the data by gender and ran the final analyses separately for boys and for girls. The probabilities of latent class membership were adjusted for age in childhood, which was included as a covariate in the latent class model.

The association of parents' immigrant status, age in childhood, gender, and family socioeconomic factors with class membership (reference category omitted) was examined using multinomial logistic regression. We then conducted path analyses using Mplus to simultaneously model the influence of parent's immigrant status on mediators (cognitive achievement test scores and parental expectations for child's schooling) and then the influence of these mediators and latent activity classes on young adulthood outcomes (high school completion, college

enrollment, working or in school, had been arrested, and had born/fathered a child). All exogenous variables were allowed to covary. The weighted least squares estimation techniques (WLSMV) was used because of its robustness in dealing with categorical outcome variables (Muthen, du Toit & Spisic, 1997). The WLSMV estimator uses a pair-wise deletion approach to missing data. Probit regressions were estimated, so odds ratios were not computed. The root mean square error of approximation (RMSEA), comparative fit index (CFI), and weighted root mean residual (WRMR) indicate satisfactory model fit (Muthen & Muthen, 2001). Robust standard errors that adjust for multiple children in a family were used to calculate significance levels.

## **Results**

### *Descriptive Results*

Table 1 presents the characteristics of the sample for children of immigrants (the 1.5 and second generation), also referred to as “immigrant children,” and children of native-born parents (third or higher generation), each group comprising about half the total sample. The average age when interviewed in childhood was 12.5; the average age of the youth in young adulthood was 19. About the same fraction of children of immigrants had graduated from high school or completed a GED (92%) as children of native-born parents (87%). Children of immigrants were more likely than the third generation to currently be in college (68% compared to 53%). Only 15% of the children of immigrants were not working or studying, compared with 23% of the children of native-born parents. Fewer than one-tenth of first and second generation youth (8%) had a criminal record compared with a quarter (25%) of the third generation.

[Table 1 about here]

Children of immigrants were more disadvantaged than children of nonimmigrants; their parents were more likely to have completed less than a high school education (55% vs. 19%) and were less likely to have completed some college (27% vs. 51%). Family incomes were lower, with an income to poverty ratio of 2.45 versus 3.47. Offsetting these disadvantages, children of immigrants were more likely than children of nonimmigrants to live with two parents (85% vs. 66%) and family sizes were similar. Reflecting waves of immigration during the 1980s, children of immigrants were more likely to be of Latino and Asian origin than children of natives (Fix & Passel, 1994).

Immigrant youths' parents' educational expectations were very high; 79% of immigrant parents expected them to complete college, compared with 59% of native-born parents. In spite of their economic disadvantage, first and second generation youths' reading comprehension test scores did not differ from those of the third generation.

Activities differed across generations. Compared to youth whose parents were born in the U.S., children of immigrants spent more time studying. Children of immigrants spent less time playing video games and less time playing sports than children from nonimmigrant families.

#### *Latent Class Analysis of Activities*

Table 2 shows the results of the latent class analysis of activities in which the classes were allowed to vary by gender, with child age as a covariate. Using 8 activities, youth were grouped into 3 latent classes, which we call "sports and social," "high engagement," and "media and study." Youth in group 1 (sports and social) participated at relatively high levels in sports and visiting and had the lowest levels of reading and studying. Youth in group 2 (high engagement) participated in studying, reading, household work, TV, visiting, and music but were less involved in electronic games and sports. Youth in group 3 (media and study) were

characterized by a high probability of playing electronic or computer games, watching TV, and studying, but little else. Note that although group 3 spent time studying, they were less likely to read print materials and participate in household work than the highly engaged group. We refer to groups 2 and 3 as “academically focused.” Group 1 is comparable to the “Social” group, group 2 to the “All-around” group, and group 3 to the “Study” group of Nelson and Gastic (2009). Among boys, 6% participated in sports and social activities, 66% were highly engaged, and 27% participated in media and study. Among girls, 26% participated in sports and social activities, 12% were highly engaged, and 62% participated in media activities and study.

[Table 2 about here]

### *Activity Class*

For the total sample, and then separately for boys and girls, we first examined the predictors of the probability of being in latent activity classes, controlling for family background, using the “Sports and social” class as a reference group (Table 3). Over all children (Top panel), having immigrant parents was not linked directly with activity patterns. Girls were less likely to be in the media and study group or in the high engagement group relative to the sports and social group. Older children less more likely to be in the media and study group or in the high engagement group compared to the sports and social group. Parental education, income/poverty ratio, family size, family structure, and race/ethnicity were not significantly linked to activity patterns across all children.

[Table 3 about here]

The models for boys and girls (middle and lower panels) were similar regarding age; however, there were several key differences. Parental education was associated with activity groups, but only for boys. Boys whose parents had completed some college or more were

significantly less likely to be in the media and study group or in the high engagement group compared to the sports and social group. This was not the case for girls, for whom parental education was not linked to activity patterns. The family size link to activity patterns also differed by gender. Girls living in a household with more children were less likely to be in the high engagement group compared with the sports and social group. Family size was not linked to activity patterns for boys.

#### *Immigrant Generation and Passage Comprehension Score*

Immigrant generation was not associated with score on the passage comprehension achievement test for all youth or separately for boys and girls. Instead, gender, number of children, parental education, and race/ethnicity were strongly linked to achievement (Table 3, columns 7-8). Girls had higher passage comprehension test scores than boys. Living in a household with more children was associated with lower test scores, living with parents with some college education or more was associated with higher test scores, and being Black or Latino was associated with lower test scores than being White or other race. Results differed little for boys and girls with one exception: parental education was not predictive of test scores for boys whereas it was for girls.

#### *Immigrant Parentage and Parental Educational Expectations*

Net of controls, having immigrant parents was strongly linked to expectations of completing four years of college or more, a result consistent for boys and girls (Table 3, columns 9-10). Having a higher ratio of income to the poverty line was also associated with higher educational expectations, a finding significant for the full sample and for boys; it was not significant for girls. Parental education was strongly associated with expecting the child to complete four years of college for all children and separately for boys and girls

### *Relationship between Immigrant Generation and Young Adult Outcomes*

Table 4 shows the results of regressing young adult outcomes on immigrant status, expectations, achievement test score, and activities. We first present results for all youth, then discuss findings that differ by gender. We tested the direct effect of immigrant status in all the models; in only one instance did immigrant status have a direct effect. Because of small sample sizes, therefore, we omitted the direct effect of immigrant status from our models, instead showing the indirect effect of immigrant status on each outcome through our mediators.

[Table 4 about here]

#### High School Completion

All Youth. Nine out of ten youth graduated from high school or obtained a GED. The primary predictor was higher parental educational expectations (Table 4, top panel). Having parents who expected the child to graduate from college was associated with a higher likelihood of high school completion. The passage comprehension test score was also positively associated with high school completion. Finally, children highly engaged in activities were more likely to complete a high school degree or GED than those involved in sports and social activities. The impact of immigrant status was indirect; parental immigrant status raised educational expectations, increasing high school completion.

Girls vs. Boys. For boys and girls (Table 4, middle and lower panels) the results for the association of parental expectations and passage comprehension with high school completion were similar for boys and for girls. There was a gender difference in the association of activities with high school completion. For boys, being highly engaged in activities was associated with a significant increase in the chance of high school completion. For girls the association was not statistically significant.

## College Enrollment

All Youth. Six of ten youth 17-26 were enrolled in college. The results for college enrollment were similar to those for the high school degree (Table 4, top panel). Parental expectations were strongly related to college enrollment. Immigrant parentage worked indirectly to increase college enrollment through parental expectations for the child's education. A higher passage comprehension test score was also associated with a higher chance of being enrolled in college. Older age in young adulthood was associated with a lower chance of being enrolled. None of the activity patterns was significantly linked to college attendance across all youth. However, there was one marginal association of potential interest: high engagement in secondary school was marginally significantly associated with a greater likelihood of college enrollment (not indicated in table).

Girls vs. Boys. Parental expectations were the most important predictor for both boys and girls (Table 4, middle and lower panels). Immigrant background indirectly influenced their college enrollment through expectations. Passage comprehension test scores also mattered for girls' college enrollment, but not boys'. High engagement was marginally associated with college enrollment for girls but not boys (not indicated in table).

## Working and/or Studying

All Youth. Even if they do not attend college, youth may be productively engaged. Eighty-five percent of children of immigrants and 77% of children of native-born parents were either employed or in school. Because older youth may have graduated from college by the time they were interviewed in the PSID TAS and have entered the work force, the results are similar to college enrollment. Having parents who expected their child to complete four years of college or more was associated with a higher likelihood of either working or studying (Table 4, top

panel). Immigrant status had an indirect effect through parental college expectations. A higher score on the passage comprehension test was associated with a greater chance of working or studying. Being highly engaged in activities in high school was associated with a higher chance of working or studying at age 26 than being involved in sports and social activities.

Girls vs. Boys. Being highly engaged in activities in high school was positively related to working or studying for boys, but not for girls (Table 4, middle and lower panels). Otherwise, findings were the same for girls and boys as for the entire sample.

### Criminal History

All Youth. Only 8% of children of immigrants had a criminal record, compared with 25% of children of native-born parents. Girls were significantly less likely to have a criminal record than boys. Higher parental expectations were associated with a lower chance of having a criminal record (Table 4, top panel) and immigrant status had an indirect effect through parental expectations. A higher passage comprehension test score was also associated with a lower chance of having a criminal record. None of the activity patterns was significantly linked to boys or girls having a criminal record.

Girls vs. Boys. The results for boys were the same as for all youth. For girls, parental expectations and passage comprehension test scores were not significantly associated with having a criminal record.

### Has a Child

All Youth. Half as many children of immigrants had a baby as children of nonimmigrants (8 vs. 17%). The main predictors of whether a youth had a child were parental expectations for four years of college, passage comprehension test scores, and whether the youth was highly engaged in activities in secondary school (Table 4, top panel). Greater parental

expectations were associated with a lower chance of having a child and there was a significant indirect effect of immigrant parenthood on childbearing through parental expectations. A higher score on the passage comprehension test was also associated with a lower chance of having a child. Compared to being involved in sports and social activities in high school, being highly engaged in activities was associated with a lower chance of having a child.

Girls vs. Boys. The results were similar for boys and girls with two exceptions (Table 4, middle and lower panels). Being highly engaged in activities was significantly linked to a lower chance of having a baby for boys whereas it was only marginally significant for girls. The indirect effect of immigrant status through parental expectations was only marginally significant for boys whereas it was significant for girls.

#### *Interactions between Immigrant Parents and Mediating Variables*

Of the potential interactions between parental immigrant status and parental educational expectation, the child's passage comprehension score, and the latent classes of out-of-school activities, four were significant. First, there were two significant interactions between immigrant status and parental educational expectations in predicting educational success. Nonimmigrant children's chances of high school completion did not depend on parental expectations as much as did immigrant children's (Figure 2). The probability of high school completion for children of immigrants rose as the level of parental expectations rose whereas the slope was flat for children of nonimmigrants. The interaction between parental expectations and immigrant status for boys' chances of college enrollment was also significant. Overall, college enrollment was higher for immigrant boys than nonimmigrant boys. As the level of parental expectations rose, the probability of college enrollment by age 26 increased more sharply for boys of immigrant than for boys of nonimmigrant parents.

Second, the association between passage comprehension score and college enrollment differed for children of immigrant and nonimmigrant parents. At low levels of passage comprehension both groups of children had a low chance of college enrollment. As the passage comprehension score rose, the college enrollment probability of children of immigrants rose faster than that of children of native-born parents. Not surprisingly, a similar interaction was identified for working and studying combined. Children of immigrants had a higher overall chance of either working or studying than children of U.S.-born parents. As the level of passage comprehension rose, the probability of working or studying rose faster for children of immigrants, but the difference in slopes was small.

[Figure 2 about here]

### **Discussion**

Our research has compared five milestones along the path to adulthood for children of immigrants and children of U.S-born parents across ages 17-26. Consistent with Hypothesis 1, the results indicate that, on those markers, immigrant youths' attainments equaled or exceeded those of their nonimmigrant peers. Even without adjusting for the lower parental education and income of their households, boys and girls from immigrant families were *more* likely than those from nonimmigrant families to be enrolled in college or to be working or studying, and they were *less* likely to have a criminal record or to have had a child. There was no difference in high school completion, including GED receipt.

This research focused on what might explain these accomplishments. Hypothesis 2, that children of immigrants have higher parental expectations for their schooling, higher passage comprehension test scores, and more focus on academic pathways during the school years than children of U.S.-born parents was partially supported. Of the three, the most consistently

significant link to immigrant parentage was parental expectations. Immigrant generation was linked to higher parental educational expectations for the full sample and separately for boys and girls. Immigrant generation was not directly linked to passage comprehension test score, a measure of reading skill. On the one hand, this is not surprising because we know from other research and have shown here that factors such as parental education, family income, race/ethnicity, and family size are consistently associated with passage comprehension scores. On the other hand, it is surprising that being a child of an immigrant, presumably with lower parental English proficiency, did not result in lower test scores. Of course, our sample of first generation children entered U.S. schools prior to age 13, so much of their schooling would have been in American schools. Although, in the bivariate analyses, immigrant youth spent more time in academic pursuits such as studying and less time playing sports or video games, once family background was controlled, significant associations between immigrant parental status and activity patterns disappeared. This suggests that differences in activity patterns are likely due to demographic characteristics rather than to immigrant background.

The third hypothesis, that greater parental expectations for schooling, higher test scores, and academic activity patterns will be associated with greater high school completion, more college attendance, a greater chance of working or studying, a lower criminal record, and a lower chance of having a child was supported. We were able to show significant associations between parental educational expectations and all five markers for adulthood for all youth. This once again demonstrates the importance of educational expectations as a driver of achievement (Hao & Bonstead-Bruns, 1998). Research (Cohen et al., 2006) shows that perceived support and self-confidence affect achievement, and that this is especially important for minority students.

A higher passage comprehension test score was also associated with all five markers of young adult success: high school completion, college enrollment, working or studying, less criminal activity, and a lower chance of having a child. Previous research has shown that higher test scores during the high school years contribute to college entrance (Cho, 2007; Jacob, 2002). It may be surprising that test score is linked not only to post-secondary education but also to the indicator of engagement in either work or study during this critical period. However, our sample was young, with most below age 22. Three out of five young adults were enrolled in school; only one out of five was employed and not enrolled. Additionally, a higher passage comprehension score was associated with a lower chance of having a criminal record and of having a child by the early twenties, both of which are detrimental to young adult success (Rumbaut, 2005).

In contrast to existing literature (Farb & Matjasko, 2012), but not surprising given the finding above about the importance of achievement to later outcomes, youth who were highly engaged in activities during their secondary school years had a significantly higher chance of completing high school compared to those who concentrated on sports and social activities. Although the highly engaged activity pattern was associated with only marginally higher college enrollment, it was associated with a significantly higher chance of either working or studying. In addition, youth, especially boys, who were highly engaged in activities were less likely to have a child during the young adult period. Two possible explanations are: 1) activities permit youth to learn important cognitive and social skills that will benefit them later on (Larson, 1994) and 2) such activities provide alternatives to early sexual activity. Although the types of activities studied here were not associated with a lower chance of criminal behavior, criminal behavior

was rare. The findings suggest that academic activities can benefit youths' chances of completing the transition to adulthood on track with their peers.

### *Gender Differences*

There were several interesting gender differences in the link between expectations, achievement, and activity patterns and markers for the transition to adulthood. In particular, a high passage comprehension score was strongly linked to college enrollment for girls but not for boys. Boys' highly engaged activity pattern was associated with a higher chance of completing high school and of working/studying in the 20s, and a lower chance of having a child, though it did not significantly affect college enrollment. Activity patterns were not significantly related to these outcomes for girls. Girls' greater college attendance and chance of working or studying were fueled by their achievements during the secondary school years, consistent with other research (Cho, 2007), whereas boys' working/studying also appeared to be influenced by their activities during this period. This research found some evidence that, for boys, greater parental education was linked to *less* focus on the high engagement pattern, with its essential academic focus. This unexpected finding likely reflects parents' focus on sports as an alternative avenue for boys' later success (Hofferth et al., 2009).

### *Interactions of Immigrant Generation with Expectations, Test scores, and Activities*

We predicted (Hypothesis 4) that the influence of parental expectations, activity patterns, and reading comprehension would vary across immigrant and nonimmigrant children, with immigrants benefitting more. The results partially supported this hypothesis. Immigrants' chance of high school completion and college enrollment (boys) benefited more than that of nonimmigrants from higher parental educational expectations. Immigrant children also benefitted from higher passage comprehension test scores; the chance of a child of immigrant

parents attending college rose more sharply with passage comprehension test score than that of a child of nonimmigrant parents. This was also the case for working or studying; the chance of working or studying rose more steeply with passage comprehension score for children of immigrants than for children of nonimmigrants. Thus, immigrant children benefitted more than nonimmigrant children from having a high passage comprehension score with regards to college enrollment and immigrant children also benefitted more from having parents who had higher educational expectations with regards to college enrollment and high school completion.

#### *Limitations and Strengths of the Study*

A number of study limitations should be recognized. First, these outcomes were measured within the first nine years after youth left high school and most youth were still in their early twenties. Given the lengthened period of transition, “emerging adulthood,” more time needs to pass before assessing the well-being of these young adults. Second, the sample is small. This limited the number of control variables that could be included and made it impossible to include other indicators of the school and community. As more immigrant youth transition to adulthood, their numbers in the Transition to Adulthood supplements to the PSID will increase. Future analyses will be able to investigate our intriguing findings further. Third, we captured children’s activities over two days in an average week. Capturing activities over more time points during secondary schooling would provide a richer characterization of children’s activities, but that was not possible in this study because of the large gap between data collection waves, the wide initial age range of children, and our need to minimize missing information. In addition, we were unable to consider the amount of time spent in each activity in addition to whether the child participated in it at all. Finally, we did not include parental English proficiency for the simple reason that there was no variability in proficiency for parents in nonimmigrant

families. For all these reasons, the results are suggestive rather than definitive. However, data limitations are outweighed by its national coverage, its recency, its inclusion of recent Latino and Asian arrivals, and its extensive data on children and their families obtained concurrently from childhood into young adulthood. Additionally, the activity data are much more precisely measured than in other studies that have primarily used a crude indicator of weekly frequency (Linver et al., 2009; Nelson & Gastic, 2009).

### *Conclusions*

One of the important objectives of this study was to examine three mediators of immigrant generation in young adult outcomes linked to human, financial, social, and cultural capital and to local school and community context: parental expectations, reading comprehension, and activity patterns. First, we showed that immigrant generation continues to influence the outcomes of children into young adulthood indirectly, if not directly. We found that immigrant background greatly raised the expectations of the parents for their children's schooling, and it was primarily this high expectation that produced higher rates of high school completion, college enrollment, work/study, and lower rates of criminal history and childbearing. The study demonstrated that parental expectations also mattered more for immigrant compared with nonimmigrant boys' chance of college enrollment.

Children's own accomplishments and activities were also important. Higher passage comprehension test scores were linked to higher later accomplishments, both for boys and girls. Although all children benefitted, children of immigrants benefitted more from higher test scores in attending college. There was no indirect association between immigrant parentage and college enrollment through passage comprehension because test scores did not differ by parental immigrant status.

Finally, children's activities contributed. Overall, there were consistent associations between the highly engaged pattern and a higher chance of high school completion, working/study, and a lower chance of having a child, associations which were stronger for boys. These patterns held for immigrant and nonimmigrant children; none of the interaction effects was significant because there were no differences in activities by immigrant parentage after adjusting for family background.

Of the aspects of human, cultural, and social capital we examined, educational expectations were strikingly powerful and consistent. The results showed that parental immigrant background continues to indirectly raise college enrollment, increase integration into the work force, and deter criminal activity and early childbearing into the mid-twenties through high educational expectations. Immigrant and nonimmigrant children contribute to their successes through activity pattern choices made during the high school years. Immigrants appear to engage in activity patterns that contain a substantial academic component – studying. However, they do so at a rate similar to nonimmigrants from similar demographic backgrounds. All children benefit from higher reading skills but immigrant children benefit more. To the extent that they are able to engage in secondary school and are later able to work legally, immigrant youth are well-prepared to make significant contributions to American society in the coming decade, an important consideration in the ongoing discussions about immigration policy. This research has shown what this preparation has entailed and how they are doing it.

### **Acknowledgements**

Support was provided through Center grant R24 HD041041 from the National Institute of Child Health and Human Development.



## References

- Akresh, I., & Frank, R. (2008). Health selection among new immigrants. *American Journal of Public Health, 98*, 2058-2064.
- Alba, R., & Nee, V. (2003). *Remaking the American Mainstream: Assimilation and contemporary immigration*. Cambridge, MA: Harvard University Press.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.
- Bachmeier, & Bean, F. (2011). Ethnoracial patterns of schooling and work among adolescents: Implications for Mexican immigrant incorporation. *Social Science Research, 40*, 1579-1595.
- Berlin, G., Furstenberg, F., & Waters, M. (2010). Transition to Adulthood: Introducing the Issue. *The Future of Children, 2010*(1), 3-18.
- Brandon, P. (1999). Receipt of public assistance by immigrant children and their families: Evidence from the Survey of Income and Program Participation. In D. Hernandez (Ed.), *Children of immigrants: Health, adjustment, and public assistance* (pp. 584-619). Washington, DC: National Academy Press.
- Child Trends. (2014). *Immigrant children*. Bethesda, MD: Author.
- Cho, D. (2007). The role of high school performance in explaining women's rising college enrollment. *Economics of Education Review, 26*, 450-462.
- Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science, 313*, 1307-1310.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(Supplement), S95-S120.
- Cooper, H., Robinson, J., & Patall, E. (2006). Does homework improve academic achievement: A synthesis of research, 1997-2003? *Review of Educational Research, 76*, 1-62.
- Crosnoe, R., & Trinitapoli, J. (2008). Shared family activities and the transition from childhood into adolescence. *Journal of Research on Adolescence, 18*, 23-48.
- Crosnoe, R., & Turley, R. (2011). K-12 educational outcomes of immigrant youth. *Future of Children, 21*(1), 129-152.
- Eccles, J., & Barber, B. (1999). Student council, volunteering, basketball, or marching band: What Kind of extracurricular involvement matters? *Journal of Adolescent Research, 14*, 10-43.

- Farb, A. F., & Matjasko, J. (2012). Recent advances in research on school-based extracurricular activities and adolescent development. *Developmental Review, 32*, 1-48.
- Federal Interagency Forum on Child and Family Statistics. (2014). *America's Young Adults: Special Issue, 2014*. Washington, DC: U.S. Government Printing office.
- Feliciano, C. (2005). Educational selectivity in U.S. immigration: How do immigrants compare to those left behind? *Demography, 42*, 131-152.
- Feliciano, C., & Rumbaut, R. (2005). Educational and occupational expectations and outcomes among adult children of immigrants. *Ethnic and Racial Studies, 28*, 1087-1118.
- Fitzgerald, J., Gottschalk, P., & Moffitt, R. (1998). An analysis of sample attrition in panel data: The Michigan Panel Study of Income Dynamics. *Journal of Human Resources, 33*(2), 251-299.
- Fix, M., & Passel, J. (1994). *Immigration and Immigrants: Setting the Record Straight*. Washington, DC: The Urban Institute.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: :Potential of the concept, state of the evidence. *Review of Educational Research, 74*, 59-109.
- Fuligni, A. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. *Child Development, 68*, 351-363.
- Fuligni, A. J., & Pederson, S. (2002). Family obligation and the transition to young adulthood. *Developmental Psychology, 38*, 856-868.
- Gans, H. J. (2014). The coming darkness of late-generation European American ethnicity. *Ethnic and Racial Studies, 37*, 757-765.
- Garcia-Coll, C., & Marks, A. K. (2012). *The Immigrant Paradox in Children and Adolescents*. Washington, DC: American Psychological Association.
- Glick, J. E., Bates, L., & Yabiku, S. (2009). Mother's age at arrival in the United States and early cognitive development. *Early Childhood Research Quarterly, 24*, 367-380.
- Glick, J. E., & Hohmann-Marriott, B. (2007). Academic performance of young children in immigrant families: The significance of race, ethnicity, and national origins. *International Migration Review, 41*, 371-402.
- Glick, J. E., & White, M. J. (2003). The academic trajectories of immigrant youths. *Demography, 40*, 759-783.
- Greenman, E. (2013). Educational attitudes, school peer context, and the “immigrant

- paradox'' in education. *Social Science Research* 42, 698–714.
- Greenman, E., & Hall, M. (2013). Legal status and educational transitions for Mexican and Central American immigrant youth. *Social Forces*, 91, 1475-1498.
- Greenman, E., & Xie, Y. (2008). Is assimilation theory dead? the effect of assimilation on adolescent well-being. *Social Science Research*, 37, 109-137.
- Hao, L., & Bonstead-Bruns, M. (1998). Parent-child differences in educational expectations and the academic achievement of immigrant and native students. *Sociology of Education*, 71, 175-198.
- Hao, L., & Woo, H. S. (2012). Distinct trajectories in the transition to adulthood: Are children of immigrants advantaged? *Child Development*, 83, 1623-1639.
- Hernandez, D., Denton, N., Macartney, S., & Blanchard, V. (2012). Children in Immigrant Families: Demography, Policy, and Evidence for the Immigrant Paradox. In C. Garcia-Coll & A. K. Marx (Eds.), *The Immigrant Paradox in Children and Adolescents* (pp. 17-36). Washington, DC: American Psychological Association.
- Hofferth, S. L. (2010). Home Media and Children's Achievement and Behavior. *Child Development*, 81(5), 1598-1619.
- Hofferth, S. L., Kinney, D., & Dunn, J. (2009). The hurried child: Myth vs. reality. In K. Matsuka & C. Christiansen (Eds.), *Life Balance: Multidisciplinary Theories and Research* (pp. 183-206). Bethesda, MD: AOTA press.
- Hofferth, S. L., & Moon, U. J. (2011). Electronic play, study, communication, and adolescent achievement and behavior, 2003-2008. *Journal of Research on Adolescence*.
- Hofferth, S. (1999). Public assistance receipt by Mexican American and Cuban American children in native and immigrant families. In D. Hernandez (Ed.), *Children of immigrants: Health, adjustment, and public assistance* (pp. 546-583). Washington, DC: National Academy Press.
- Jacob, B. (2002). Where the boys aren't: Noncognitive skills, returns to school and the gender gap in higher education. *Economics of Education Review*, 21, 589-598.
- Kao, G., & Tienda, M. (1995). Optimism and achievement: The educational performance of immigrant youth. *Social Science Quarterly*, 76(1), 1-19.
- Kroneberg, C. (2008). Ethnic communities and school performance among the new second generation in the United States: Testing the theory of segmented assimilation. *Annals of the American Academy of Political and Social Science*, 620, 138-160.

- Landale, N., Oropesa, R., & Llanes, D. (1998). Schooling, work, and idleness among Mexican and nonLatino white adolescents. *Social Science Research, 27*, 457-480.
- Larson, R. (1994). Youth organizations, hobbies, and sports as developmental contexts. In R. Silbereisen & E. Todt (Eds.), *Adolescence in context: The interplay of family, school, peers, and work in adjustment* (pp. 46-65). New York: Springer-Verlag.
- Linver, M., Roth, J., & Brooks-Gunn, J. (2009). Patterns of adolescents' participation in organized activities: Are sports best when combined with other activities? *Developmental Psychology, 45*, 354-367.
- Lippman, L. H., Byberg, R., Carney, R., & Moore, K. (2015). *Workforce Connections: Key "soft skills" that foster youth workforce success: Toward a consensus across fields*. Bethesda, MD: Child Trends.
- McNeal, R. B., Jr. (1995). Extracurricular activities and high school dropouts. *Sociology of Education, 68*, 62-81.
- Moon, U., & Hofferth, S. (2015, February). *Parental involvement, child effort, and the development of immigrant boys' and girls' reading and mathematics skills: A latent difference score growth model*, Maryland Population Research Center, University of Maryland.
- Muthen, B., du Toit, S., & Spisic, D. (1997). *Robust inference using weighted least squares and quadratic estimating equations in latent variable modeling with categorical and continuous outcomes*. Retrieved from [http://www.statmodel.com/bmuthen/articles/Article\\_075.pdf](http://www.statmodel.com/bmuthen/articles/Article_075.pdf)
- Muthen, L., & Muthen, B. (2001). *Mplus User's Guide*. Los Angeles, CA: Muthen & Muthen.
- Nelson, I. A., & Gastic, B. (2009). Street ball, swim team and the sour cream machine: A cluster analysis of out of school time participation portfolios. *Journal of Youth and Adolescence, 38*, 1172-1186.
- Nicholas, T., Stepick, A., & Stepick, C. D. (2008). Here's your diploma, mom! Family obligation and multiple pathways to success. *Annals of the American Academy of Political and Social Science, 620*, 237-252.
- Okamoto, D., Herda, D., & Hartzog, C. (2013). Beyond good grades: School composition and immigrant youth participation in extracurricular activities. *Social Science Research, 42*, 155-168.
- Panel Study of Income Dynamics. (1999, 12 May). *1997 Public Release I documentation* [New Immigrant Sample Addition]. Retrieved December 28, 2010, from Panel Study of Income Dynamics: <http://psidonline.isr.umich.edu/data/Documentation/Fam/1997/readme.txt>

- Passel, J. (2011). Demography of immigrant youth: Past, present, future. *Future of Children*, 21(1), 19-41.
- Perreira, K., Harris, K., & Lee, D. (2006). High school completion by immigrant and native youth. *Demography*, 43, 511-536.
- Pong, S.-L., & Landale, N. S. (2012). Academic achievement of legal immigrants' children: The roles of parents' pre- and postmigration characteristics in origin-group differences. *Child Development*, 83, 1543-1559.
- Pong, S.-L., & Zeiser, K. L. (2012). Student engagement, school climate and academic achievement of immigrants' children. In C. Garcia-Coll & A. K. Marx (Eds.), *The Immigrant Paradox in Children and Adolescents* (pp. 209-232). Washington, DC: American Psychological Association.
- Portes, A., & Fernandez-Kelly, P. (2008). No Margin for Error: Educational and Occupational Achievement among Disadvantaged Children of Immigrants. *Annals of the American Academy of Political and Social Science*, 620, 12-36.
- Portes, A., & Zhou, M. (1993). The new second generation: Segmented assimilation and its variants. *Annals of the American Academy of Political and Social Science*, 530, 74-96.
- Rumbaut, R. (1996). Ties that bind: Immigration and immigrant families in the U.S. In A. Booth, A. Crouter & N. Landale (Eds.), *Immigration and the Family: Research and Policy on U.S. Immigrants* (pp. 3-46). Hillsdale, NJ: Lawrence Erlbaum.
- Rumbaut, R. (2005). Turning points in the transition to adulthood: Determinants of educational attainment, incarceration, and early childbearing among children of immigrants. *Ethnic and Racial Studies*, 28, 1041-1086.
- Rumbaut, R., & Komaie, G. (2011). Immigration and adult transitions. *Future of Children*, 20(1), 43-66.
- Sastry, N., & Pebley, A. R. (2010). Sources of socioeconomic inequality in children's achievement. *Demography*, 47, 777-800.
- Schafer, J. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research*, 81, 3-15.
- Settersten, R., Jr., & Ray, B. (2010). What's going on with young people today? the long and twisting path to adulthood. *Future of Children*, 20(1), 19-41.
- Simpkins, S., Fredericks, J., Davis-Kean, P., & Eccles, J. (2006). Healthy mind, healthy habits. In A. Huston & M. Ripke (Eds.), *Developmental Contexts in Middle Childhood* (pp. 283-302). New York: Cambridge University Press.

- Simpkins, S., Price, C., Quach, A., Starbuck, E., & Delgado, M. (2012). Socioeconomic status, ethnicity, culture, and immigration: Examining the potential mechanisms underlying Mexican-origin adolescents' organized activity participation. *Developmental Psychology, 2012*, 706-721.
- Swidler, A. (1986). Culture in action: Symbols and strategies. *American Sociological Review, 51*, 273-286.
- Szklo, M., & Nieto, J. (2007). *Epidemiology: Beyond the Basics, 2nd edition*. Jones & Bartlett.
- Thomas, K. J. (2009). Parental characteristics and the schooling progress of the children of immigrant and U.S.-born Blacks. *Demography, 46*, 513-534.
- Tseng, V. (2006). Unpacking immigration in youths' academic and occupational pathways. *Child Development, 77*, 1434-1445.
- Tudge, J., Doucet, F., Odero, D. S., T., Piccinini, C., & Lopes, R. (2006). A window into different cultural worlds: Young children's everyday activities in the United States, Brazil, and Kenya. *Child Development, 77*, 1446-1469.
- U.S. Census Bureau. (2012). *Statistical Abstract of the U.S.* Washington, DC: U.S. Government Printing office.
- Warner, D., Fishbein, D., & Krebs, C. (2010). The risk of assimilating? Alcohol use among immigrant and U.S.-born Mexican youth. *Social Science Research, 39*(176-186).
- White, M. J., & Glick, J. E. (2009). *Achieving Anew: How New Immigrants do in American Schools, Jobs, and Neighborhoods*. New York: Russell Sage Foundation.
- Woodcock, R., & Mather, N. (1989). *W-J-R Tests of Achievement: Examiner's Manual*. Allen, TX: DLM Teaching Resources. R.W. Woodcock & M.B. Johnson, Woodcock-Johnson Psycho-Educational Battery-Revised).
- Yoshikawa, H., & Way, N. (2008). From peers to policy: How broader social contexts influence the adaptation of children and youth in immigrant families. *New Directions in Child and Adolescent Development, 121*, 1-8.
- Zhang, Z. (2014). Contingent transition to triumph. *Chinese Sociological Review, 46*, 68-88.

**Table 1. Descriptive characteristics of all study variables**

	All children			Children of immigrants		Children of native-born parents		
	Mean	SD	Range	Mean	SD	Mean	SD	vs. immigrants
Children of immigrants	49%							
1st generation	12%							
2nd generation	37%							
Children of native-born parents	51%							
Girl	52%			56%		48%		
Age - childhood	12.45	1.82	10-18	12.37	1.73	12.53	1.90	
Age - adulthood	19.16	1.24	17-26	19.03	1.14	19.30	1.32	*
<b>Young adult outcomes</b>								
High school graduation or GED	90%			92%		87%		
Currently enrolled in college	60%			68%		53%		**
Working or studying	81%			85%		77%		*
Ever criminal record	17%			8%		25%		***
Given birth or fathered	13%			8%		17%		*
<b>Background variables</b>								
Parent education								
Less than high school	37%			55%		19%		***
High school	24%			18%		30%		*
Some college or more	39%			27%		51%		***
Income/poverty ratio	2.97	2.57	.05-19	2.45	2.50	3.47	2.54	***
Two-parent family	76%			85%		66%		***
Number of children in HH	2.54	1.21	1-7	2.58	1.30	2.49	1.11	
<b>Culture</b>								
Parent expectation for child's education								
4-year college or more	69%			79%		59%		***
Race/ethnicity								
White	26%			6%		45%		***
Black	20%			5%		34%		***
Latino	43%			67%		19%		***
Asian	9%			18%		1%		***
Other race	2%			3%		2%		
<b>Children's activities (weekly hours)</b>								
Electronic game play	3.58	7.05	0-62.9	2.98	5.48	4.17	8.28	

Video games	2.52	5.44	0-41.5	1.90	3.92	3.12	6.55	*
Computer games	1.07	3.89	0-32.3	1.08	3.81	1.06	3.99	
Television viewing	14.98	11.37	0-69.5	14.83	10.62	15.12	12.09	
Visiting	2.30	4.55	0-28.8	1.98	4.23	2.60	4.84	
Reading for pleasure	1.23	2.74	0-21.8	1.36	2.64	1.10	2.84	
Studying	4.74	5.85	0-38.3	5.61	6.07	3.90	5.51	**
Household work	2.99	4.13	0-29.7	3.23	4.42	2.76	3.82	
Sports participation	3.34	5.85	0-38.0	2.58	4.65	4.08	6.76	*
Music	0.50	2.30	0-31.7	0.69	3.01	0.31	1.24	

**Cognitive achievement**

Passage comprehension	100.65	16.45	52-186	98.98	13.24	101.91	18.44	
-----------------------	--------	-------	--------	-------	-------	--------	-------	--

N	374			185		189		
---	-----	--	--	-----	--	-----	--	--

---

**Table 2. Item Response Probabilities for three-class model by gender with covariates of child's age: probability of endorsing item given latent class**

	Gender variance model					
	Boys			Girls		
	1	2	3	1	2	3
<b>Class Membership Probability</b>	0.06	0.66	0.27	0.26	0.12	0.62
<b>Item Response Probabilities</b>						
	Sports & social	High engagement	Media & study	Sports & social	High engagement	Media & study
Electronic games	0.35	0.49	0.95	0.10	0.37	0.36
Reading	0.01	0.30	0.12	0.01	0.77	0.43
Studying	0.35	0.65	0.65	0.42	0.77	0.76
Household work	0.45	0.82	0.32	0.55	0.94	0.77
TV	0.20	1.00	1.00	0.91	0.90	0.98
Visiting	0.42	0.29	0.41	0.41	0.54	0.35
Sports	0.54	0.59	0.39	0.44	0.18	0.22
Music	0.19	0.06	0.12	0.00	0.75	0.00
<b>Covariate of Child Age</b>						
<i>B</i>	-	-0.56	-0.30	0.23	-0.24	-
<i>Odds Ratio</i>	1.00	0.57	0.74	1.26	0.78	1.00

N = 374

**Table 3. Unstandardized coefficients for children's activity patterns, test scores, and parental expectations**

	Activity Patterns (ref. Sports & social)						Passage comprehension scores			Parental educational expectations		
	Media & study			High engagement			b	SE	p	b	SE	p
	b	SE	p	b	SE	p						
<b>All children</b>												
Constant	5.91	1.35	***	11.05	1.65	***	99.84	20.74	***	0.68	1.42	
Immigrant generation												
Immigrant parents	0.32	0.38		-0.26	0.47		1.52	2.28		1.29	0.21	***
Girls	-1.11	0.44	*	-4.40	0.50	***	5.39	2.52	*	0.12	0.23	
Age	-0.37	0.09	***	-0.72	0.11	***	0.96	0.60		0.09	0.05	
Income/poverty ratio	0.05	0.09		0.19	0.11		0.32	0.50		0.13	0.06	*
Number of children in the HH	0.05	0.16		0.05	0.18		-1.79	0.89	*	0.04	0.06	
Family structure (ref. Single-parent family)												
Two-parent family	0.52	0.42		0.85	0.51		4.09	2.62		0.33	0.20	
Parent education (ref. Less than HS or HS)												
Some college or more	-0.08	0.38		-0.58	0.49		8.64	2.24	***	0.72	0.20	***
Race/ethnicity (ref. White/Asian/other)												
Black	0.06	0.43		-0.01	0.55		-5.91	2.23	**	0.07	0.23	
Latino	0.29	0.44		0.52	0.53		-6.96	2.46	**	0.40	0.23	
AIC	574.8						R <sup>2</sup>	0.25		0.42		
BIC	653.1											
Adjusted BIC	589.6											

N = 371; \*\*\*  $p \leq .001$ , \*\*  $p \leq .01$ , \*  $p \leq .05$  two-tailed test

	Activity Patterns (ref. Sports & social)						Passage comprehension scores			Parental educational expectations	
	Media & study			High engagement							
	b	SE	p	b	SE	p					
<b>Boys</b>											
Constant	10.46	4.08	*	15.26	4.01	***	95.85	37.42	*	1.05	2.05
Immigrant generation											
Immigrant parents	-1.18	1.04		-1.61	1.00		0.01	3.97		1.48	0.36 ***
Age	-0.48	0.25		-0.83	0.24	**	1.42	1.06		0.08	0.07
Income/poverty ratio	0.21	0.20		0.32	0.19		0.94	0.69		0.20	0.10 *
Number of children in the HH	-0.51	0.34		-0.28	0.29		-1.73	1.51		-	0.09
Family structure (ref. Single-parent family)											
Two-parent family	0.32	0.87		0.74	0.83		3.60	4.44		0.17	0.29
Parent education (ref. Less than HS or HS)											
Some college or more	-2.13	1.05	*	-2.97	1.00	**	5.90	4.03		0.77	0.31 *
Race/ethnicity (ref. White/Asian/other)											
Black	0.00	1.30		-0.21	1.29		-8.32	3.42	*	0.32	0.36
Latino	0.38	1.01		0.44	0.96		-8.95	4.61		0.58	0.38
AIC	263.2						R <sup>2</sup>	0.27		0.53	
BIC	320.3										
Adjusted BIC	263.3										

N = 177; \*\*\* p ≤ .001, \*\* p ≤ .01, \* p ≤ .05 two-tailed test

<b>Girls</b>	<b>Activity Patterns (ref. Sports &amp; social)</b>						<b>Passage comprehension scores</b>			<b>Parental educational expectations</b>		
	<b>Media &amp; study</b>			<b>High engagement</b>			<b>b</b>	<b>SE</b>	<b>p</b>	<b>b</b>	<b>SE</b>	<b>p</b>
	<b>b</b>	<b>SE</b>	<b>p</b>	<b>b</b>	<b>SE</b>	<b>p</b>						
Constant	4.11	1.40	**	8.18	2.81	**	108.53	21.32	***	0.80	1.92	
Immigrant generation												
Immigrant parents	0.55	0.42		-0.13	0.66		3.17	2.51		1.34	0.31	***
Age	-0.36	0.10	***	-0.79	0.19	***	0.81	0.69		0.10	0.08	
Income/poverty ratio	0.01	0.10		0.11	0.14		-0.49	0.69		0.06	0.10	
Number of children in the HH	0.20	0.20		-0.75	0.37	*	-1.36	1.14		0.06	0.09	
Family structure (ref. Single-parent family)												
Two-parent family	0.65	0.48		1.22	1.03		3.04	3.08		0.45	0.30	
Parent education (ref. Less than HS or HS)												
Some college or more	0.23	0.43		1.13	0.81		11.96	2.67	***	0.66	0.29	*
Race/ethnicity (ref. White/Asian/other)												
Black	0.05	0.47		0.06	0.77		-2.85	3.02		0.17	0.31	
Latino	0.20	0.46		0.75	0.76		-4.66	2.61		0.44	0.35	
AIC	317.7						R <sup>2</sup>	0.23		0.36		
BIC	376.5											
Adjusted BIC	319.5											

N = 194; \*\*\* p ≤ .001, \*\* p ≤ .01, \* p ≤ .05 two-tailed test

**Table 4. Unstandardized coefficients for hypothesized model of young adult outcomes**

	High school completion			College enrollment			Working and/or studying			Criminal record			Has a child		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p
<b>All youth</b>															
Constant	4.07	2.84		-1.15	1.63		2.05	1.49		0.49	1.79		1.35	2.01	
Girl	0.86	0.58		0.28	0.21		0.20	0.28		-0.59	0.30	*	0.29	0.30	
Age	-0.32	0.14	*	-0.27	0.08	**	-0.09	0.07		0.14	0.08		0.30	0.09	**
<b>Parent expectation for child's education</b>															
4-year college or more	0.69	0.22	**	0.39	0.09	***	0.24	0.09	*	-0.37	0.11	**	-0.33	0.11	**
<i>Indirect from immigrant status</i>	0.89	0.30	**	0.51	0.13	***	0.31	0.12	*	-0.48	0.16	**	-0.42	0.16	**
<b>Academic achievement</b>															
Passage comprehension	0.06	0.02	**	0.02	0.00	***	0.02	0.01	***	-0.02	0.01	*	-0.02	0.01	*
<i>Indirect from immigrant status</i>	0.09	0.14		0.03	0.05		0.04	0.05		-0.03	0.05		-0.03	0.04	
<b>Childhood activity patterns (ref. Sports &amp; social)</b>															
Media & study	1.56	0.93		0.30	0.33		0.48	0.35		0.11	0.55		-0.77	0.41	
High engagement	2.29	1.08	*	0.70	0.37		0.90	0.42	*	0.58	0.59		-1.21	0.43	**
R <sup>2</sup>	0.73			0.37			0.27			0.43			0.38		

N = 371, RMSEA = .038, CFI = .952, WRMR = .77

\*\*\* p ≤ .001, \*\* p ≤ .01, \* p ≤ .05 two-tailed test

	High school completion			College enrollment			Working and/or studying			Criminal record			Has a child		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p
<b>Boys</b>															
Constant	4.90	4.61		-3.20	2.66		5.51	2.83		0.53	3.09		3.16	4.46	
Age	-0.23	0.20		-0.28	0.14	*	0.01	0.11		0.12	0.13		0.39	0.17	*
<b>Parent expectation for child's education</b>															
4-year college or more	0.58	0.25	*	0.44	0.13	**	0.24	0.15		-0.42	0.15	**	-0.33	0.16	*
<i>Indirect from immigrant status</i>	0.86	0.41	*	0.64	0.23	**	0.36	0.22		-0.62	0.26	*	-0.49	0.25	
<b>Academic achievement</b>															
Passage comprehension	0.05	0.02	*	0.01	0.00		0.02	0.01	*	-0.03	0.01	**	-0.02	0.01	**
<i>Indirect from immigrant status</i>	0.00	0.19		0.00	0.03		0.00	0.07		0.00	0.10		0.00	0.09	
<b>Childhood activity patterns (ref. Sports &amp; social)</b>															
Media & study	2.35	1.50		0.39	0.58		1.30	0.78		0.36	1.15		-1.50	0.94	
High engagement	2.87	1.42	*	0.56	0.56		1.54	0.70	*	0.79	1.13		-1.45	0.68	*
R <sup>2</sup>	0.70			0.39			0.28			0.47			0.46		

N = 177, RMSEA = .00, CFI = 1.00, WRMR = .603

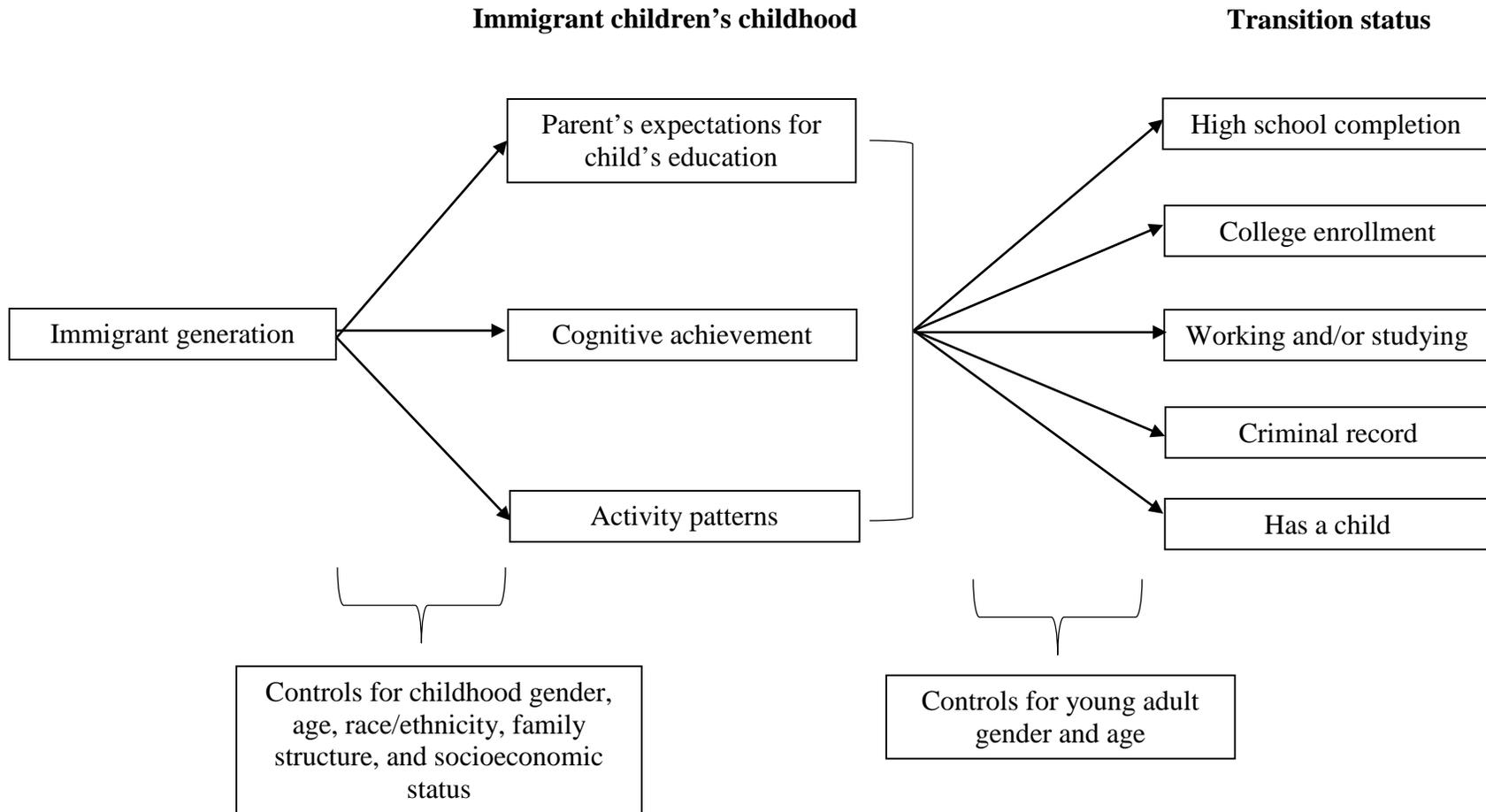
\*\*\* p ≤ .001, \*\* p ≤ .01, \* p ≤ .05 two-tailed test

	High school completion			College enrollment			Working and/or studying			Criminal record			Has a child		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p
<b>Girls</b>															
Constant	5.73	6.51		1.31	2.38		-0.18	1.97		2.02	3.19		0.09	2.79	
Age	-0.40	0.30		-0.30	0.12	*	-0.16	0.11		0.26	0.22		0.26	0.14	
<b>Parent expectation for child's education</b>															
4-year college or more	0.66	0.24	**	0.31	0.13	*	0.19	0.12		-0.28	0.16		-0.33	0.14	*
<i>Indirect from immigrant status</i>	0.88	0.37	*	0.42	0.19	*	0.25	0.16		-0.38	0.23		-0.45	0.22	*
<b>Academic achievement</b>															
Passage comprehension	0.06	0.03	*	0.04	0.01	***	0.03	0.01	**	-0.02	0.01		-0.02	0.01	*
<i>Indirect from immigrant status</i>	0.20	0.18		0.14	0.12		0.08	0.07		-0.05	0.05		-0.06	0.05	
<b>Childhood activity patterns (ref. Sports &amp; social)</b>															
Media & study	1.58	2.04		0.25	0.45		0.04	0.45		-0.33	1.17		-0.80	0.54	
High engagement	5.35	19.67		1.10	0.62		0.74	0.69		0.30	1.12		-1.32	0.73	
R <sup>2</sup>	0.80			0.46			0.23			0.24			0.33		

N = 194, RMSEA = .038, CFI = .949, WRMR = .73

\*\*\* p ≤ .001, \*\* p ≤ .01, \* p ≤ .05 two-tailed test

Figure 1. Hypothesized model



**Figure 2. Interactions of parental immigrant status with parental expectation or test score for predicting young adults' outcomes**

