Inequalities in the Social Integration of Immigrant Youth

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Abstract

Extant research has documented an advantage of immigrant compared to native-born youth in terms of education and, to some extent, in terms of health. In this study, we examine whether similar advantages are found in their social integration. We use the National Longitudinal Study of Adolescent Health to investigate the social integration of immigrant adolescents how this is affected by their health and socio-economic environment. Using adolescents' own reports and those of their schoolmates, we study differences in access to social support from peers comparing foreign-born and native-born adolescents. Foreign-born adolescents report fewer friends, are more likely to be friendless, and are less likely to be named as friends by schoolmates or to have their best friendships reciprocated. Part of these disadvantages are explained by differences between foreign and native-born students in demographic, social, economic, health, and school characteristics, while but disadvantages persist even after these differences have been accounted for. The social connections of immigrant youth are fewer and weaker, with potential long-term consequences for their social well-being and mental health.

Introduction

Foreign-born children are among the fastest growing segments of the U.S. population, currently accounting for 7% of school-aged children (Davis and Bauman, 2008; Fields, 2003; Landale and Oropesa, 1995). Much sociological research has focused on the wellbeing of immigrant children and implications for their later success and social mobility (Greenman and Xie, 2007; Harker, 2001; Portes and Rumbaut 1996, 2001;Zhou and Bankston 1998). The immigrant experience has been shown to be complex among children and adolescents, being characterized by both, advantages and disadvantages when compared to native populations. First generation students have higher educational achievement relative to their native-born peers (Kao and Tienda 1995; Portes and Rumbaut 2001), but also higher rates of dropping out of school (Hirschman, 2001). They are less likely to experience depression and have better general health (Harker, 2001), but are more likely to be living in poverty (Fix, Zimmermann, and Passel 2001). They are exposed to higher rates of crime, drugs, alcohol and gangs (Zhou and Bankston, 1998) and are more likely to experience prejudice and discrimination than their native counterparts (Elmelech et al.; 2002; Gandara and Rumberger 2009; Suárez-Orozco and Qin, 2005; Zhou 1997). An important component of the social wellbeing of immigrant children about which little is known is social integration.

In this paper, we investigate the social integration of immigrant youth and how it compares with the social wellbeing of their native-born American peers. We focus on social integration with respect to friendship formation, as friends are among the most important actors in the development of adolescents. Peers are important models of socialization, shape aspirations, share information, and provide social reinforcement for beliefs and behaviors

(Giordano, 2003; Hamm and Faircloth, 2005; Hartup, 1993; Suarez-Orozco, Pimentel, Martin, 2009:712; Crosnoe et al. 2003). Friendships may be even more important for immigrant children, serving the additional purpose of assimilation in terms of linguistic fluency and understanding of local social and cultural norms, especially since immigrant families may not be able to provide much guidance in incorporating into American society (Faulstich-Orellana, 2008).

This study advances the literature on immigrant assimilation and wellbeing in several domains. First, we explore the nature and extent of differences in social integration between native and foreign-born youths. Second, we investigate the sources of differences in social integration. Specifically, we examine how the personal characteristics, family resources and school characteristics of foreign-born adolescents affect their access to friends. Furthermore, we contribute to the limited knowledge about the health of immigrant children, relating health patterns with friendship formation to determine whether immigrant children have different observable health characteristics and how these may be related to social wellbeing.

Social integration and immigrant assimilation

Falci and McNeely (2009: 2032) define social integration as "the degree to which an individual is connected to other individuals in a network." Social integration is multidimensional and has been measured in different ways: as number of ties, types of ties, and frequency of contact (Ennett et al. 2006; Falci and McNeely, 2009; House, Umberson, and Landis, 1988; Ueno 2005). The concept has also been applied to many types of relationships and social activities, including church attendance, membership in social groups and organizations, relationships with

parents, and relationships with peers as well as the size of these groups (Fletcher and Shaw, 2000; Myers, 1999; Anderson 1996). Regardless of how social integration is measured, its benefits are well documented: Social integration promotes higher levels of social and psychological well-being (for a review on adults see House, Umberson, & Landis, 1988). Specifically in the case of youth, researchers agree that social integration with peers is of chief importance in understanding the social wellbeing of adolescents as during this time, youth increasingly establish autonomy from the parents while becoming more involved with same-age peers (Crosnoe 2000Crosnoe et al. 2003; Fletcher and Shaw 2000Giordano, 2003; Hamm and Faircloth, 2005; Hartup, 1993; Suarez-Orozco, Pimentel, Martin, 2009). Thus, especially starting in adolescence, social integration is extremely important because friends are a critical source of healthy emotional, psychological, social, and academic adjustment (Collins and Laursen, 1999; Nangle and Erdley, 2001; Way and Hamm, 2005). However, not all research supports the conclusive benefits of social integration. As with any type of relationships, some have even argued that too much social integration within peers may have negative consequences similar to those of isolation, particularly with respect to depression in adolescence. One friend may not be enough to ward the adolescent from depression, whereas too many friends may place the child under higher levels of stress while the child attempts to meet the obligations and expectations from many different which may end up causing depressive symptoms (Falci and McNeely, 2009).

The social integration of immigrant children is an important component of assimilation and may affect subsequent social and psychological integration of immigrants in adulthood (Aronowitz, 1984). However, as discussed above, there are barriers to the formation of

friendships for immigrant youth such as prejudice and discrimination, both due to xenophobia and/or racism (Faulstich Orellana, 2008), as they are more likely to belong to a racial/ethnic minority compared to non-immigrant youth (U.S. Census Bureau, 2008); naiveté about American culture (Gandara and Rumberger, 2009), or insufficient mastery of English (Suárez-Orozco and Qin, 2005; Zhou, 1997). In addition, foreign-born children are more likely to come from disadvantaged socio-economic backgrounds than the native-born American population (Fix, Zimmermann, and Passel, 2001; Hernandez and Darke, 1999), and socio-economic status has been noted to correlate with friendship reciprocity (Vaquera and Kao 2008). Lower socio-economic status is associated with fewer friendship opportunities because poorer children may be less able to participate in extracurricular activities, where school friendships tend to be solidified (Huebner and Mancini 2003). Extracurricular activities can be expensive and require time commitment from parents. Immigrant parents may be even less able to provide these, as they tend to have less flexible work schedules than native parents (Suarez-Orozco and Suarez-Orozco, 2001). Other disadvantages identified in the literature are the greater responsibilities that immigrant children have at home (Orellana, 2003; Suarez-Orozco and Qin, 2006; Valenzuela, 1999), which may reduce the time they have to develop friendships.

The school context

School characteristics can promote or hinder opportunities to develop friendships. Crosnoe (2000: 381) pointed out that "where young people live and attend school largely determines friendship formation," and demonstrated that this occurs through two mechanisms: similarity and closeness in physical space, because young people are more likely

to befriend those whom they see most often; and similarity, because adolescents tend to befriend others with whom they feel they share characteristics. Thus, the distribution of the student body and the diversity or lack thereof will affect the ability to form friendships.

Suburban and rural schools have been shown to facilitate friendships due to their generally smaller size and the greater intimacy of smaller communities (Leung and Ferris, 2008; Kuziemko, 2006; Coladarci and Cobb, 1996; Barker and Gump, 1964). At the same time, large schools may provide a more diverse student body with more opportunities for children to find others with whom they feel comfortable (Smith and DeYoung, 1988). As Gitlin et al. (2003) demonstrated in their study of immigrants in a middle school ESL program, "inclusionary" and "exclusionary" processes take place simultaneously: busing policies, cafeteria seating practices, and school assemblies are some of the key elements that make children either welcome or unwelcome in school, though, in general, all these create marginalizing situations for immigrant students. This is of particular importance, as children spend much of their time at school and it is the main and first institution through which immigrant children are introduced to U.S. society. In these institutions, they may find support among schoolmates (whether other immigrants or not) to navigate school, to learn new words, do their homework, etc. Schools can also offer opportunities such as sports, clubs, and other extracurricular activities (Crosnoe and Muller, 2004; Crosnoe and Lopez Gonzalez, 2005). These cultures will be experienced, among others, through the friendships they develop in school.

Health and friendship

Physical and mental health may affect an adolescent's likelihood of forming and maintaining friendships. For example, previous research has found that overweight or obese girls were more likely to believe that maintaining a thinner body type would improve the quality of their friendships (Gerner, 2005), illustrating both physical and mental health effects on perceived friendship relationships. It has also been noted that children affected by health problems, specifically overweight youth, were more likely to be spend time alone (Salvy, 2008). A cycle may develop, as peer isolation may encourage increased sedentary behaviors, thus reinforcing greater weight gain or health problems.

Further, children who are sick are more likely to be absent from school, and so may be excluded or have a hard time forming close friendships because they spend less time with classmates and have fewer opportunities to make friends or to develop strong friendships. Even when they are in school, they may be less able to engage in play or sports, which are friendship-building activities. In addition, some illnesses or disabilities may be stigmatizing, which can cause isolation from other adolescents. Peers' stigmatizing attitudes towards weight status, such as overweight and obesity, is one physical health concern that is often identified, in previous literature (Gray, Kahhan, and Janicke, 2009; Strauss and Pollack, 2003). For instance, children have reported being less willing to seek the company of obese peers or engage in activities with them, when compared to participation with lean children (Bell and Morgan, 2000). These actions and negative attitudes may then aggravate adolescents' physical and mental health problems, supporting further research of relationships between health and social integration.

Research on child health has reported both better and worse health among migrant children compared with the native-born. Foreign-born children and adolescents have been documented to be less likely to be obese (Bogin et al. 2002; Smith et al. 2003; Harris, 1999 However, there is variation, with some foreign-born Hispanics being less likely to be overweight, while Mexican and Cuban adolescents are significantly more likely to be overweight than U.S.-born ethnic Mexicans and Cubans (Gordon-Larsen et al. 2003). Other studies have documented better health among immigrant children, including fewer illnesses, injuries, learning disabilities (Yu, Huang and Singh 2004), lower likelihood of asthma, reporting poor or fair health, and missing school due to health or emotional problems (Harris 1999). Foreign-born children also have lower likelihood of depression and report and more positive well-being compared to native-born peers with similar demographics and family backgrounds. (Harker, 2001). On the other hand, there are significant concerns surrounding the general health of foreign-born children, in part because they often have less access to medical care than U.S.-born children. One study reported that children in immigrant families are in worse physical health than other children (Huang, Yu and Ledsky 2006) and another explains that migrant children face different health risks compared with U.S.-born children, especially uncommon infectious diseases, malnutrition, development delay, and psychiatric trauma (Schwarzwald 2005).

Data and methods

We use the National Longitudinal Study of Adolescent Health (Add Health), which is representative of the U.S. population enrolled in secondary school in 1995. Baseline data,

including information on friendships, were collected from over 90,000 students in 1994-95 and included all students in the selected schools (Harris et al., 2003). More detailed data, including health information, were collected in an In-Home survey in 1995, for which a sub-sample of students was recruited from each school. About 200 students from each school pair (High School and Middle School) were randomly selected to participate in the In-Home survey, resulting in a self-weighting sample of 20,745 adolescents in grades 7 through 12 (Harris 2003). A second In-Home survey was carried out in 1996, a third wave in 2001-02, and a fourth wave was fielded in 2008.

Our final sample is drawn from the 15,355 respondents who participated in both the In-School and In-Home wave I surveys. We must use data from those respondents who participated in both instruments because information on friends was collected in the In-School instrument, while information on health, including weight and height, was collected in the In-Home instrument.

The unequal probability cluster sample design of Add Health requires the use of robust standard errors at the school level. We weight and adjust the analytical models for differences in selection probabilities and response rates. Thus, sample totals serve as estimates of population totals (Chantala, 2002; Chantala and Tabor, 1999; Tourangeau and Shin, 1998).

Immigrant status

Our outcome measure is the nativity status (immigrant generation) of the adolescent. Foreign-born, or immigrant adolescents are those who were born outside of the U.S. (first generation), while native born adolescents are those who were born in the U.S., to either native-born or foreign-born parents (second and beyond generation).

Dependent variables

In order to address the multidimensionality of social integration among friends, we examine four dimensions of reports on friendship All four measures were created from the In-School questionnaire, where respondents were asked to nominate up to five male and five female friends from the school roster, which was provided by the school and included the names of all enrolled students, or from among their out-of-school friends. We restrict our definition of friends to same-sex friends because Add Health instructions asked respondents to include romantic relationships and others have noted that over 95% of cross-gender friendships during adolescence are romantic (Hartup and Laursen, 1993). These relationships may relate in different ways to friendship formation and thus we exclude them from our analyses.

Two of the dimensions are based on reports from the respondents themselves and two are based on the responses about the individual from schoolmates. We analyze both self-reports and peer reports to attain a more complex picture of the social integration of foreign-born children. For example, it may be that immigrant children *believe* that they have fewer friends than native-born children, but that they do receive as many friendship nominations as non-immigrant children. Thus, both children's perceptions and social connections are important for socialization and these do not necessarily need to overlap. The two self-reported outcomes used are: 1) whether the student reported no same-sex friends[1] (social isolation) and 2) total number of self-reported same-sex friends (perceived social capital). The two outcomes reported by schoolmates are: 3) number of individuals at school who identified the index

[1] For easiness of reading we omit "same-sex" for the manuscript, however, best friend always refers to "same-sex best friend."

student as one of their five same-sex friends (level of embeddedness at school) and 4) whether the respondent's self-reported same-sex best school friend also selected the respondent as one of his or her top five friends (reciprocity or strength). Previous published work has used similar measures in the study of friendship (e.g. Duncan, Boisjoly, and Harris, 2001; Joyner and Kao, 2000; Vaquera and Kao, 2008).

Explanatory variables

Our analytical models include several control variables expected to affect friendship formation: *individual characteristics* are gender, age (in years), and race/ethnicity from the students' self-reports: (non-Hispanic) White, (non-Hispanic) Black, Hispanic, Asian, and Other race. Indicators of the child's *social and economic environment* are parents' education (measured in years of schooling), whether the family received food stamps, and the number of years the student has been in the school. The *school characteristics* are: size of the student body, public or private, urban/non-urban (includes suburban and rural) location, whether this is a low SES school[2], and the proportion of students who are foreign-born. We control for the child's health in terms of several observable health conditions that may affect friendship opportunities: obesity (more than two standard deviation above the age and sex-specific z-score of the reference population), short stature (more than one standard deviation below the age and sex-specific z-score of the reference population), skin conditions (reports skin problems, such as itching or pimples, every day or almost every day) coughing (reports to have

[2] We calculated this measure using the mean SES of all of the schools in the sample. Schools that were below one standard deviation from the mean fall into the group of "low SES schools."

a sore throat or a cough, every day or almost every day) and has asthma. These conditions are also among the most commonly reported in the sample.

Results

The final sample consists of 11,731 adolescents, with almost 8% foreign-born. As Table 1 shows, respondents were on average 15 years old at the time of interview, with foreign-born respondents being significantly older (15.1 vs. 14.6). Similar to national averages, foreign-born adolescents were primarily Hispanic (45%) or Asian (30%), with only 8% being Non-Hispanic white, compared with 52% white in the native-born sample. The largest differences in health were anthropometric: Foreign-born adolescents were less often obese (11 vs. 7%) but much more often short (19 vs. 10%). They were also less likely to report daily coughing. Foreign-born adolescents were from lower socio-economic status families, with significantly less parental education (12.4 years vs. 13.3 years). They had been at their current schools for slightly shorter periods of time (average of 2.3 years vs. 2.8 years among the native-born). The schools they attended were more likely to be urban, and were significantly larger (1,011 students on average compared with 709 among native-born students). Foreign-born students were more likely to attend low socio-economic status schools. They also tended to be in schools with higher proportion of foreign-born students (19 vs. 5%). Thus, the schools attended by foreign-born students are substantially different from those attended by native-born youth.

There are also significant differences in friendship patterns among students by nativity status. Based on students' reports about their friendships, foreign-born students are more likely to report having no friends (19 vs. 11%), and report on average slightly fewer friends (3.21 vs.

3.96). They also receive significantly fewer friendship nominations from schoolmates (3.34 vs. 4.78), and are less likely to have their best school friend reciprocate their friendship (39 vs. 52%). Thus, foreign-born adolescents have fewer and weaker friendships than native-born adolescents. Next, we analyze whether this disadvantage is robust once we consider additional individual, family, school, and health characteristics of these youth.

[Table 1 about here.]

Panel 1 in Table 2 shows estimates of having no friends according to self-reports. Foreign-born adolescents are more likely to report being friendless (0.65), at school or elsewhere, according to the bivariate model they have almost double the odds (1.91) to report being socially isolated. These differences are importantly reduced (0.35) when we consider demographic characteristics – race, age and gender (odds 1.42). Additional controls for social and economic circumstances, school characteristics, and health characteristics further explain away the differential in social isolation. Although foreign-born students remain more likely to be friendless (estimate is 0.21 after including all controls), the difference is no longer significant once we control for school characteristics. This suggests that immigrant youth's higher levels of social isolation is associated more with other individual, family and contextual characteristics than with place of birth, we discuss the effects of these measures in the next section.[3]

[3] Additional analyses (not shown) tested the odds of having a foreign-born friend for those adolescents with a school-best friend (i.e. homophily). Foreign-born individuals are significantly more likely to choose other foreign-born students are their best friends. This difference is persistent after demographic and family characteristics are considered. However, this preference disappears after we control by the percentage of foreign-born students in the school. This suggests that first generation students tend to befriend other foreign-born youth because they attend the same schools. Homophily seems to be more a product of the school context than due to individual preference. In addition, having a foreign-born best friend did not imply different odds to have the friendship reciprocated.

Number of friends reported is negatively associated with immigrant status (Panel 2). Foreign-born adolescents report significantly fewer friends than US-born adolescents. While differences in friendship formation were explained by observed characteristics, differences in the number of friends remain significant. Demographic, social, and economic characteristics of the adolescent, explain components of the gap, but even after the full set of explanatory variables, foreign-born students still have significantly fewer friends (-0.40). Whereas foreign-born adolescents do form friendships, they do not seem to create these links with as many individuals as their native counterparts.

The third outcome in Table 2 is the number of friendship nominations received from schoolmates. Foreign-born adolescents receive one and a half fewer friendship nominations than native-born individuals (-1.44). A large part of this gap results from differences in individual demographic characteristics, which are able to explain away about a third of the estimate (-0.97). Still more is explained by social and economic circumstances (-0.81) and by school characteristics (-0.51). The difference between foreign and native-born slightly increases with the addition of health characteristics (0.58). Among the health indicators included in the model, weight is the most important predictor (-1.48), indicating that the differences in embeddedness would be even bigger if foreign-born individuals had the same health characteristics as native-born adolescents.

Panel 4 shows the likelihood that the respondent's self-reported best friend from school reciprocated the friendship by also selecting the respondent as one of his or her top 5 same-sex friends. In the bivariate model, foreign-born adolescents are significantly 40% less likely to have their friendship reciprocated (estimate -0.51). Taking into account the respondent's

demographic characteristics reduces the difference in friendship reciprocation between foreign-born and native-born respondents by an additional 14%, but this difference remains significant (estimate -0.30). However, once we account for the child's social and economic environment at home the difference becomes only marginally significant (-0.24). School characteristics explain the remaining differences in friendships reciprocation between foreign-born and native adolescents. Health conditions do not change the relationship between nativity and friendship reciprocation.

Reports by schoolmates suggest a disadvantage for foreign-born students in their school friendships. Foreign-born adolescents are less likely to receive friendship nominations by school peers, and though this gap is reduced by accounting for personal, family, and school characteristics, about half of the difference in number of friendship nominations remains unexplained. Whereas foreign-born adolescents do not seem to be among the most embedded children in school, the friendships they establish in school can be as strong as those of their native counterparts when individual, family, and school characteristics are accounted for As evidence by the estimates for reciprocity.

[Table 2 about here.]

Individual, family, school and health characteristics on friendship formation and strength

Table 3 displays the contributions to social wellbeing for each of the control measures employed in our analyses. Among the *individual indicators*, racial/ethnic identity has an important explanatory power on the differences in social integration among the adolescents in the study. Minority youth are different from their white counterparts in all four outcomes

studied in this paper: they are less likely to form friendships: they have fewer friends, are less likely to be nominated by others in school as a friend and have their friendship reciprocated. Given that most immigrant children in today's U.S. schools are racial/ethnic minorities, this finding suggests that part of the difference may be due to racial discrimination that minorities face when trying to form ties with others. Other individual characteristics such as age and gender, confirm finding from previous published research (Giordano, 2003) such as females being more likely to establish friendships, having more friends, and having their friendships reciprocated. In other words, girls are more socially integrated. The measure for age suggests that older adolescents are less likely to self-report friends and they also have fewer friends (both self and reported by others), and their friendships are slightly less reciprocated.

An additional component of individual characteristics is health. The health indicators that have significant effects on friendship are stature, body weight, skin conditions, and coughing. Interestingly, stature only seems to affect self-reported measures of friendship, with shorter adolescents reporting fewer friends and being more likely to report that they have no friends. Peer-reports seem to be unaffected by the index child's stature, suggesting that peers are not as concerned with stature. On the other hand, while obese children report similar friendship patterns as other children, their peers' reports suggest significantly lower social integration, with obese children receiving fewer friendship nominations and being less likely to have their friendships reciprocated. Children who report that they have a bad cough or skin problems also report similar friendship patterns with other children, but are less likely to be selected as friends by their peers. This suggests that children with these visible health problems are less popular, but, unlike obese children, their friendships are not weaker.

Indicators of the *social and economic environment* uncover the disadvantage children of lower class families face in terms of their friendships. Students from higher socio-economic backgrounds (as measured by highest educated parent) are more likely to form and to have more friends, to be nominated by others in school as a friend, and to have their friendships reciprocated. When accounting for those who qualify for food stamps we observe the reversed pattern from the one just presented, that is for all of the social integration outcomes analyzed, students eligible for food stamps are worse off. Our final social and economic indicator, years in the school, confirms an expected finding: that the longer the adolescent has been in the current school the higher the social integration. Given that immigrant children tend to have been in school for fewer years compared to U.S.-born children (see Table 1), this explains another source for the differences in their social integration.

Regarding the measures for school characteristics, their contribution across outcomes is not as uniform as those for individual and social and economic characteristics. Also, not all controls seem to be contributing factors to explain differences in the outcomes analyzed in this study. Students in public schools are more likely to be friendless and have fewer friends, but they are not significantly different from students in private schools in terms of nominations by others in school or having their friendships reciprocated. Our findings show that students in urban schools (compared to those in suburban and rural institutions) have lower levels of social integration in all four outcomes analyzed. Schools' socio-economic conditions, the proportion of immigrants in the school, or size of the student body do not seem to pose additional barriers to friendship formation and strength.

[Table 3 about here.]

Discussion

Foreign-born adolescents face disadvantages in their social integration at school and elsewhere. Descriptive statistics suggested that foreign-born youth lagged behind in all four dimensions of social integration examined in this study when compared to native-born youth. However, multivariate analyses uncover that at least part of that gap can be explained by factors other than their immigrant origin.

This study shows that the differences in social integration between natives and foreign-born children in terms of social isolation and friendship strength result from individual characteristics, specifically race, age, and years spent at the current school. Among these characteristics, the effect of race/ethnicity appears as especially salient. As previous studies have shown, minority youth tend to self-report fewer friends, but suffer from prejudice and discrimination are less likely to have their friendships reciprocated, and are nominated by fewer schoolmates as friends compared with white children (Vaquera and Kao, 2008). Similar to non-immigrant minorities, immigrant children also suffer the consequences of pertaining to racial and ethnic minority groups when it comes to their social integration.

Contextual measures employed in this study are, however, not enough to account for differences in all aspects of social integration analyzed. Foreign-born students still have fewer friends both according to their own and their peers' reports. This suggests that the social capital they perceive to have access to is smaller than that of native-born adolescents. They are also less likely to be highly embedded in the school, as they are not as likely to be named as a friend by schoolmates. Thus, immigrant children are less likely to have access to a social network from which to draw social capital, and when they do, that network is more limiting, as they are

embedded into smaller groups. Whereas half of this gap between foreign and native-born adolescents results from differences in personal, family, and school characteristics, a large portion of the difference in number of friends remains unexplained. This may suggest that xenophobia may be driving the lack of embeddedness within the school. It may also be a barrier to develop relationships that can be perceived as providers of social capital both in and out of school, Complementary explanations, may include demands from the family which prevent the adolescent from time and effort to develop a larger number of friends, differences in the understanding of who can be considered as friend. Our study does not account for these hypotheses, but it does reveal that there are other sources of constraint when it comes to explaining the barriers to social integration among adolescent immigrants.

The findings also represent an important step in understanding a dimension of the immigrant experience, specifically as it relates to assimilation, which too often focus on indicators of attainment, education, employment, citizenship, residential integration, etc. (Alba and Nee, 2003; Portes and Rumbaut 1996, 2001). This approach to social integration for immigrant adolescents has typically been overlooked in these debates, yet it is vital to understanding the immigrant experience, particularly during such a vulnerable stage of life (i.e. adolescence). In short, what happens with regards to relationships during adolescence could be relevant to discussions of other social outcomes that often tend to be the focus of studies that measure assimilation into the host society as adults.

Additionally, how we conceptualize both social integration and friendships often misses the multi-dimensional nature of what is essentially a social process of inclusion and exclusion. Perceptions of friendships are important; our study reveals that how *others* perceive and

reciprocate friendships are also important aspects of the social process of establishing friendships. Our study highlights the significance of these various aspects of friendships as they pertain to social integration. By examining each of these dimensions individually, we can better ascertain the specific barriers faced by immigrant children when it comes to making these social connections, thereby allowing us to narrow our efforts when it comes to developing policies or programs to promote the integration of immigrants. For instance, targeting urban schools specifically when it comes to developing programs that could better integrate students and draw them into the pre-established networks of students.

Lastly, this research also highlights the continuing salience of race and ethnicity. Our findings demonstrate that the effects of race and ethnicity go above and beyond immigrant background. The inclusion of this key explanatory measure to understand differences in sociological outcomes is often ignored in discussions of immigrants, which tend to overlook the importance of race/ethnicity for the foreign-born as immigrants are often seen as challenging current frameworks of race. Our research suggests that immigrant adolescents are confronted not only with the challenges of being foreign-born, but also becoming a racial minority upon arrival to the United States. Given that they are incorporated in largely disadvantaged schools, the circumstances that receive them need to be better understood, as they are influencing the kinds of relationships that immigrants are forming.

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Table 1: Characteristics of the sample by nativity

	U.S.-born N=10,809		Foreign-born N=922		Difference
	Mean or %	(SE)	Mean or %	(SE)	
Self reported friendships					
Reports having no friends	0.11	(0.01)	0.19	(0.03)	**
Number of friends	3.96	(0.05)	3.21	(0.16)	**
Has out of school friend	0.2	(0.01)	0.31	(0.03)	**
School-mate reported friendships					
Number of friendship nominations	4.78	(0.12)	3.34	(0.23)	**
Proportion of friendships reciprocated	0.52	(0.01)	0.39	(0.03)	**
Number of friendships reciprocated	0.84	(0.03)	0.63	(0.07)	**
Personal characteristics					
Female	0.50	(0.01)	0.52	(0.02)	
Years in school	2.78	(0.08)	2.28	(0.07)	**
Age	14.63	(0.13)	15.11	(0.20)	*
White	0.64	(0.03)	0.17	(0.03)	**
Black	0.13	(0.02)	0.07	(0.02)	*
Hispanic	0.09	(0.01)	0.36	(0.06)	**
Asian	0.02	(0.00)	0.26	(0.05)	**
Other	0.11	(0.01)	0.13	(0.02)	
Health characteristics					
Obese	0.11	(0.01)	0.07	(0.01)	**
Short	0.1	(0.01)	0.19	(0.02)	**
Bad skin	0.14	(0.00)	0.13	(0.02)	
Bad cough	0.02	(0.00)	0.01	(0.00)	**
Asthma	0.02	(0.00)	0.02	(0.01)	
School characteristics					
School size	708.86	(50.18)	1011.26	(152.10)	**
Public	0.92	(0.02)	0.92	(0.04)	
Urban	0.22	(0.04)	0.45	(0.09)	**
Low SES school	0.16	(0.04)	0.27	(0.09)	
Proportion of students foreign-born	0.05	(0.01)	0.19	(0.04)	**
Region	2.57	(0.03)	2.62	(0.17)	

Standard errors are in parentheses; + significant at 10%, * significant at 5%, ** significant at 1%.

Table 2: Estimates from regressions of nativty on self and schoolmate reported friendship outcomes

	Model 1	Model 2	Model 3	Model 4	Model 5
	Bivariate	Demographic Characteristics	Social and Economic Characteristics	School Characteristics	Health Characteristics
Self-reports					
Has no friends					
Foreign-born	0.65**	0.35+	0.29	0.23	0.21
	(0.19)	(0.19)	(0.20)	(0.21)	(0.22)
Number of friends					
Foreign-born	-0.75**	-0.51**	-0.46**	-0.40**	-0.40**
	(0.15)	(0.14)	(0.13)	(0.14)	(0.14)
Schoolmate reports					
Number of friendship nominations					
Foreign-born	-1.44**	-0.97**	-0.81*	-0.51*	-0.58**
	(0.24)	(0.21)	(0.21)	(0.21)	(0.21)
School friendship reciprocated					
Foreign-born	-0.51**	-0.30*	-0.24+	-0.15	-0.16
	(0.13)	(0.13)	(0.12)	(0.12)	(0.12)

Standard errors are in parentheses; + significant at 10%, * significant at 5%, ** significant at 1%.

Notes: Model set 1 controls for nativity status. Model set 2 controls for variables in Model 1, plus demographic characteristics (gender, age, and race). Model set 3 controls for variables in Model 2, plus social and economic characteristics (parents' education, recipient of foodstamps, and years in school). Model set 4 controls for variables in Model 3, plus school characteristics (urban setting, public school, proportion of foreign-born students, low SES school, and school size). Model set 5 controls for variables in Model 4, plus health characteristics (obese (2SD>mean), short (1SD<mean), frequent skin issues, frequent sore throat or cough, and asthma).

Table 3: Characteristics associated with self and peer reported friendship outcomes
(Regression estimates, full model)

	Self-reports		Schoolmate reports	
	Has no friends	Number of friends	Number of friendship nominations	School friendship reciprocated
Foreign-born	0.21	-0.40**	-0.58**	-0.16
	(0.22)	(0.14)	(0.21)	(0.12)
Personal characteristics				
Female	-0.84**	0.52**	0.51**	0.64**
	(0.09)	(0.05)	(0.12)	(0.06)
Years in school	-0.07+	0.06**	0.24**	0.12**
	(0.04)	(0.02)	(0.06)	(0.03)
Age	0.17**	-0.12**	-0.13*	-0.10**
	(0.04)	(0.02)	(0.05)	(0.03)
Black	0.75**	-0.51**	-0.44+	-0.49**
	(0.15)	(0.09)	(0.25)	(0.10)
Hispanic	0.63**	-0.42**	-0.31	-0.43**
	(0.15)	(0.09)	(0.23)	(0.12)
Asian	0.20	-0.21	-0.43	-0.19
	(0.26)	(0.14)	(0.34)	(0.18)
Other	0.61**	-0.29**	-0.62**	-0.36**
	(0.12)	(0.07)	(0.17)	(0.10)
Health characteristics				
Obese	-0.11	0.00	-1.48**	-0.29**
	(0.12)	(0.06)	(0.14)	(0.09)
Short	0.37**	-0.21**	0.02	-0.03
	(0.12)	(0.07)	(0.19)	(0.08)
Bad skin	-0.12	0.04	-0.29+	-0.01
	(0.11)	(0.06)	(0.16)	(0.08)
Bad cough	-0.07	-0.07	-0.63*	-0.10
	(0.27)	(0.12)	(0.27)	(0.20)
Asthma	-0.10	-0.01	-0.31	-0.20
	(0.25)	(0.12)	(0.33)	(0.16)
Home socio-economic characteristics				
Parents' education	-0.02	0.03**	0.10**	0.03**
	(0.02)	(0.01)	(0.02)	(0.01)
Receives food stamps	0.13	-0.08	-0.79**	-0.21*
	(0.12)	(0.09)	(0.15)	(0.10)
School characteristics				
School size	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Public	0.71**	-0.38**	0.32	-0.30
	(0.22)	(0.14)	(0.42)	(0.20)
Urban	0.75**	-0.42**	-1.03**	-0.53**
	(0.25)	(0.15)	(0.27)	(0.13)
Low SES School	0.20	-0.12	-0.20	-0.09
	(0.15)	(0.09)	(0.35)	(0.13)
Proportion of students foreign-born	-0.64	0.04	-1.94	-0.35
	(0.94)	(0.49)	(1.44)	(0.73)
Observations	11,731	11,731	11,731	11,731

Standard errors are in parentheses; + significant at 10%, * significant at 5%, ** significant at 1%.