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The Integration of Immigrant Youth in Schools and Friendship Networks

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Abstract This study examines the degree to which immigrant youth are integrated in school settings at the dyadic (reciprocity and isolation), network (popularity, centrality, social status), and institutional levels (connection to school, extracurricular activities). The study includes 43,123 youth across 64 schools with immigrant populations from the 1994–1995 Wave I in-school survey of the National Longitudinal Study of Adolescent to Adult Health (Add Health). Survey-weighted logistic, negative binomial, and linear regression models were used to estimate the effects of race/ethnicity, immigrant generation, friendship composition, and school composition on integration at dyadic, network, and institutional levels. In general, the success of second-generation youth in navigating their school social contexts provides evidence of positive processes of immigrant integration. However, important differences across racial and ethnic groups suggest that these successes are most prominent for Asian youth, while other groups may not experience processes of social integration equally. In addition, same race/ethnicity friendships functioned to facilitate social integration, while same-generation friendships placed youth from immigrant families at increased risk for marginalization. Results highlight the need for schools to consider how to build connections across immigrant generations and to draw on the strengths of immigrant youth to contribute to school communities.

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Schools in the United States are becoming more culturally and linguistically diverse. By the middle of this century, the US will be majority non-White and as many as one in three will be first- or second-generation immigrants (Passel 2011). These demographic changes are accompanied by an "integration imperative" (Alba et al. 2011; Lichter 2013) highlighting the need to promote the integration of youth from different cultural backgrounds, particularly those from immigrant families. Recent research on immigrant integration in school and community settings has focused on school composition (Goosby and Walsemann 2012; Walsemann et al. 2011), parent involvement (Kuperminc et al. 2008; Reynolds et al. 2015), cultural practices in the home (Fuligni 1997; Kao 2004), and extracurricular activities (Okamoto et al. 2013), among others. However, much less research has examined immigrant integration in schools from the perspective of peer friendships and social networks. The primary goal of this study is to address this gap in the literature by examining immigrant youth integration in school settings at the dyadic, network, and institutional levels.

Integration and Peer Friendships

There is increasing interest among social scientists in the processes that lead to integration within schools among adolescent peer friendship networks and within school social structures. Peer relationships provide an important social context for adolescent development (Steinberg and Monahan 2007) and can provide insight into the ways in which race, ethnicity, immigrant generation, and language all play a role in how friendships are formed. While many studies of integration focus on school-level indicators of integration (e.g., percentage of students of color in majority-White schools) (Goosby and Walsemann 2012; Orfield and Frankenburg 2014; Stroub and Richards 2013), recent developments in the science of network analysis offer new approaches to the study of social integration through the study of friendship networks.

Immigrant integration can be understood as the bidirectional processes by which immigrant and host societies come to resemble one another (Waters and Gerstein Pineau 2015). Researchers examine factors from all facets of social life, including such factors as educational access, interracial marriage, health outcomes, and political participation, to understand the degree to which immigrants and their native peers are similar or different with respect to these indicators. In adolescence, the literature has examined friendship integration almost uniquely from the perspective of same- and cross-group friendships (Doyle and Kao 2007; Goodreau et al. 2009; Kao and Vaquera 2006; Moody 2001). This area of research has demonstrated that youth tend to form more same-culture friendships that are stronger and more stable over time than cross-culture friendships (Aboud et al. 2003; Kao and Joyner 2004; Rude and Herda 2010; Vaquera and Kao 2008), and school-level factors tend to impact friendship choices (Houtte and Stevens 2009;

Quillan and Campbell 2003). However, it may also be worth investigating not just cross-cultural friendship choices, but also to compare how well youth are integrated into school social structures and friendship networks. To what degree do immigrants foster reciprocated friendships, occupy positions of centrality and prestige, develop close-knit or dense social groups, report strong connections to their school, or even participate in extracurricular activities at similar rates to their native peers? The purpose of this study is to push the theoretical understanding of integration beyond cross-group friendship and to examine the degree to which immigrant and native youth are similar or different with respect to their positions within school social structures and social networks.

The implication of this theoretical approach—that it is not just cross-cultural friendships, but rather social positions within school communities that matter for youth—is an implicit argument for the value of social capital developed in the context of school settings. Social capital theory (Coleman 1988) argues that the relationships formed among individuals have value and that positive relationships with resourced individuals and entities have the capacity to improve outcomes for the individuals who hold them. Stanton-Salazar (1997, 2004) has extended this theory to conceive of social networks—the sum of social relationships with peers, teacher, and institutions—as "social freeways" that allow youth to navigate and move about the social landscape of a school setting to gain access to resources and opportunities. However, Stanton-Salazar argues that these "social freeways" are not equally accessible: indeed, forces of power and privilege make it so that some youth have access to these freeways, while others—particularly youth of color and youth from immigrant families—do not.

This study of social position within schools therefore uses a social capital framework to test two theoretical worldviews with respect to the processes of immigrant integration in the United States: one, that, despite some group differences, immigrants are largely integrating into the US society (Alba et al. 2011; Waters and Gerstein Pineau 2015), or conversely, that the story of immigrant integration is "segmented", whereby immigrants of color from lower income countries are ushered into the US underclass (Haller et al. 2011; Portes and Zhou 1993). If immigrant youth occupy similar positions in school social structures to their native peers, they would have similar levels of access to the social freeways which confer resources and opportunities. Conversely, if immigrant youth are positioned along the margins of these school structures, they would have less access to these social freeways and in turn integration processes may be compromised.

The purpose of this study is to examine the social positions of immigrant youth in school settings. Of primary interest is how race and ethnicity, as well as immigrant generation, predict a youth's social position in school. Interactions between race/ethnicity and immigrant generation are then employed to test for differences among racial and ethnic groups—to help answer, for example how these processes may differ for first-generation Asian youth and second-generation Hispanic youth. Additionally, the cultural composition of friendship groups as well as school communities is examined to determine whether these relationships vary across these social structures.

Literature Review

Structural integration in school settings can be examined in a variety of ways. In this study, three types of integration are examined: (1) dyadic integration, or peer-to-peer friendship formation, (2) network integration, or social position (e.g., popularity, social status), and (3) school integration, or connections developed with the school at an institutional level.

Dyadic Integration

One method of studying integration is to examine individual, peer-to-peer friendships among youth. Research suggests that friendship can provide social support (Stanton-Salazar and Urso Spina 2005), protect against anxiety (La Greca and Harrison 2005) and depression (Ueno 2005), encourage achievement motivation (Nelson and DeBacker 2008), and promote academic achievement (Wentzel and Caldwell 1997), often through encouraging greater connection to school and motivation for learning. Youth higher in sociality (the propensity to nominate friends and be nominated as a friend) may in turn be associated with improved outcomes over the life course (Umberson et al. 2010).

A number of studies have indicated disparities in sociality across racial, ethnic, and socioeconomic lines. Hispanic students nominate fewer friends and are less likely to nominate a best friend compared to their non-Hispanic White peers (Vaquera 2009), and those who do report having more friends also report higher school belonging and fewer engagement problems, like having trouble paying attention or getting homework done. In addition, Black, Hispanic, Asian, and Native American youth are each less likely to have reciprocated friendships in comparison to their White peers, and across all groups females are more likely than males to have reciprocated friendships (Vaquera and Kao 2008).

Studies outside the US have confirmed similar experiences of exclusion among immigrant youth in Canada (Steinbach 2010). In a study of the socioeconomic predictors of friendship formation, Hjalmarsson and Mood (2015) found that poorer youth tend to report fewer friendships and receive fewer friendship nominations, perhaps related to fewer opportunities to participate in school extracurricular activities. Similarly, youth who have recently moved to a new school have fewer friendships, fewer best friends, and are less likely to have a reciprocated best friend (South and Haynie 2004). The common implication of the above studies seems to be that youth who are on the social margins with respect to race, ethnicity, social class, and outsider status tend to nominate fewer friends, have weaker, less-reciprocated friendships, and are more likely to be isolated.

Network Integration

Research has also examined social position within a network (e.g., how central or popular one is) to capture integration. Recent studies on youth networks in the Netherlands (Vermeij et al. 2009), Germany (Leszczensky and Pink 2015; Windzio

2015), and across Europe (Smith et al. 2014) have examined network factors that explain youth friendship patterns as related to ethnicity and immigration, with findings across the literature indicating at least some degree of social marginalization of immigrant youth. In the United States, Moody (2001) examined school-level factors that impact friendship integration and found that the lowest levels of racial and ethnic integration are found in moderately heterogeneous schools that have a clear divide between two racial or ethnic groups—possibly a result of an "us" versus "them" culture in two-group schools. Similarly, Goodreau et al. (2009) found that White, Black, and Asian students exhibited preferences for in-group (i.e., homophilous) friendships, but that Latinos were less racially homophilous. Moreover, the network process of triadic closure, in which friends of friends tend to be friends (A is friends with B, B with C, so A is likely to be friends with C), also accounted for many of the friendship choices and amplified the propensity for same-race friendships (Goodreau et al. 2009). Similar to Moody's (2001) findings, these relationships varied depending on the percentage of students of color in a given school setting. Furthermore, Goodreau et al. (2009) found that when Whites are in the minority, they tend to form more homogeneous friendships—a finding that suggests greater opportunity for contact may not lead to more interracial mixing and that other factors may account for friendship choices. For Black students, however, the relationship was U-shaped: when in the high majority or small minority, Black students are more integrated in cross-racial friendship groups, while Black students in schools compose an intermediate proportion of the population, in-group friendship preferences are higher. These findings highlight both the micro/mezzo factors at the dyadic and network levels within schools that impact the social integration of youth.

Institutional Integration

Studies examining institutional integration within schools tend to focus on equity of the participation of youth in school activities, including access to advanced and specialized courses (tracking), participation in extracurricular activities, and general school engagement. In existing studies, what unites these efforts is the examination of integration in school activities *within*, rather than *across*, schools (Goodreau et al. 2009; Lucas and Berends 2007; Okamoto et al. 2013; Schaefer et al. 2011). Previous research has examined the integration within institutional social structures by studying tracking patterns within schools, often citing how low-income students of color tend to be tracked into lower-performing classes that are not designed to prepare students for college (Alba et al. 2011; Lucas and Berends 2007). Moody (2001) has also argued that such tracking practices may in turn have impacts on friendship integration, such that low-income students of color are more likely to develop friendships with students of similar backgrounds tracked into the same classes. Alba et al. (2011) similarly noted that tracking systems may be a particular barrier to integration for immigrant youth, as immigrant parents may lack the cultural capital required to navigate tracking systems to favor their child's academic and social success.

Extracurricular activities play an important role in friendship formation above and beyond the effects of homophily and network processes (Schaefer et al. 2011). Using data from the 2002 Educational Longitudinal Study (ELS), Cherng et al. (2014) found that racial and ethnic minority groups, as well as first- and second-generation youth, are less likely to have friends or socialize with others, but that these youth were no less likely to participate in school activities like sports and other extracurricular activities. Other studies have focused on school racial and ethnic composition as a factor that may constrain participation in extracurricular activities. For example, Okamoto et al. (2013) found that immigrant minority youth who are in high-SES schools, with high percentages of immigrant and non-White students, tended to participate in extracurricular activities at higher rates than lower SES or primarily White schools. Common across these studies is the recognition that the social structures within schools, including classrooms and extracurricular activities, have a bidirectional relationship with friendship formation that may impact the integration of youth across cultural and linguistic lines.

Methods

The participants in this study were drawn from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a stratified longitudinal study of adolescents in grades 7 through 12 during the 1994–1995 school year. In-school surveys were administered to 90,118 adolescents in over 140 schools capturing basic information about adolescent health and behaviors. This dataset is uniquely suited to answer questions of integration in friendship networks because friendship network data are captured at each school: students were asked to nominate up to five male and five female friends, and these nominations were then used to reconstruct the adolescent's social network. Data are drawn from the wave I in-school questionnaire, in-school friendship nominations, in-school network constructed variables, and the school data file. Data were excluded if they (1) were missing an individual identifier, (2) were missing a school identifier, (3) were single-sex schools, (4) were associated with schools with lower than a 75% survey completion rate, and/or (5) were associated with schools where less than 5% of the school population was from an immigrant family. The fourth criterion is required to ensure reliable estimates of network measures based on data collected from friendship nominations, as missing data can bias network-based measures (Borgatti et al. 2006; Costenbader and Valente 2003). Rather than defining a cutoff for all network studies, Constenbader and Valente (2003) recommend looking to similar studies to see what expectations are for handling missing network data in the area of interest. The choice of 75% follows a strategy similar to studies by Moody (2001) and Schaefer et al. (2011). In addition, the fifth exclusion criterion is included to ensure unbiased immigrant generation parameter estimates that would result if schools with too few immigrant youth were included.

Initially, 4491 cases were removed for missing individual and/or school identifiers, 9934 were removed for missing a school identifier, and 43 students for missing school data, with the sample being reduced to 75,871. Of these, 2808

students from 20 schools were removed where fewer than 75% of the students completed the in-school questionnaire. An additional 18,086 cases from 44 schools were removed, which have an immigrant population lower than 5%, and additionally 1854 cases not included in the sample weighting were removed. The final sample includes 43,123 adolescent youth in 64 schools (56 public, 8 private or Catholic). Additional missing data on individual attributes are handled using multiple imputation in Stata 14 (Gelman et al. 2004; Schafer 1997).

Included schools are representative across four major regions of the United States (West, 25%; Midwest, 14%, South, 33%; Northeast, 19%). On average, first-generation students comprised 6.89% (SD 9.50) and second-generation students comprised 12.68% (SD 9.15) of the student population. As schools with fewer than 5% of an immigrant population were excluded from the analytical sample, study schools tended to have higher averages of immigrant youth and youth of color in comparison to the full sample. The average school size was 923 students (SD 717), though there was a great variation in school size within the sample (range 30, 3334).

Measures

Demographic variables include those relating to the cultural and socioeconomic factors known to be associated with the study outcomes. Gender is measured as a binary variable (1 = female), while age (ages 10–19), grade level (6–12), and years at the school (1–6) are measured as integer or count variables. Mother and father education levels were determined based on adolescent respondents to the question, "How far in school did he/she go?", with responses recoded into three dummy variables: less than high school, high school and/or GED, and some college education, with less than high school serving as the reference group.

Race and ethnicity are measured as follows. First, adolescent youth are assigned a value in one of the five categories (mutually exclusive): White, Black, Asian, Hispanic (non-White), and Native American/Other. All Hispanic youth are assigned to the Hispanic category, regardless of race, while those who report mixed status are recorded in "Other". Next, a second set of dummy variables (0/1) are constructed to allow for the potential overlapping of racial and ethnic categories during particular points in the study analysis. This approach follows a similar coding scheme to other studies that explicitly model race and ethnicity using Add Health data (Greenman, 2011; Kao and Joyner 2004).

Immigration status is determined using the birthplaces of the parents and children participants. Foreign-born youth with parents born outside the US are considered first-generation, native-born youth with both parents foreign-born are second-generation, and third-generation are included with the native population (Greenman 2011; Okamoto et al. 2013). Because Add Health data do not provide information on the length of time spent in the United States since arrival, further analyses of 1.5 or 2.5 generations are not possible. For regression analyses, male, White, third-generation/native youth compose the reference group.

Dependent Variables

The outcome of interest in this study is integration, which is divided into dyadic friendship integration, network integration, and institutional integration. Dyadic integration and network integration are both measured using the friendship nominations data from Add Health. All study participants were asked to nominate up to five male and five female friends, and from these friendship nominations network indicators of friendship reciprocity, isolation, centrality, popularity, social status, and density were created. Youth both nominate others (referred to as "out-degree" nominations) and are nominated by others (referred to as "in-degree" nominations), and most youth (middle 50%) had between 4 and 12 friends.

Dyadic friendship integration refers to integration at the friendship level and is measured with three variables. The first two measures are indicators of friendship reciprocity by gender and are operationalized as nominating a best friend of the same gender (male/female) and having that friend reciprocate the friendship nomination. Youth who have best friends reciprocate as friends are coded (=1) and those without are coded (=0), and the measure is recorded as missing if the youth does not have a best friend or if the best friend did not complete the questionnaire. The third measure is a measure for isolates, which include those youth who neither nominate another youth nor receive a nomination from another youth.

Network integration refers to how connected one is to a social network. Sociometric measures of popularity, centrality, social status, and density are derived from friendship nominations and used to examine to the degree of inclusion or exclusion within peer friendship networks. Popularity is measured by in-degree, or the total number of friendship nominations a youth receives. Low-popularity friends received none, or just a few friendship nominations, while very popular youth received as many as twenty or more. Centrality is a concept that measures how connected, or how involved, an actor is in a network, taking into account not only how many friendship nominations the youth sends and receives but also the number of connections among that youth's friends. The more connected one's friends are, the higher the centrality of the youth. Centrality is operationalized using the sociometric measure of Bonacich Power (1987), which approximates a youth's centrality and weights the youth's centrality according to their own connections as well as the number of connections of their friends. The measure ranges from zero (no centrality) to 4.96.

Network theorists distinguish between being well connected in a network and being powerful or of high social status in a network. "Prestige" is understood to represent those actors in a network who are powerful—not necessarily because they are the most connected, but because they are relied upon by others and become the object of many other's friendship nominations. High-prestige youth would represent the head of a clique or social group who receives many nominations from others but does not necessarily reciprocate them. Operationally, proximity prestige measures an ego's social status influence relative to the number of people in the network who can reach the ego, such that values close to one represent high prestige, while values close to zero represent low prestige (Wasserman and Faust 1994). Higher proximity prestige indicates more social status, and lower prestige lower status. Youth who are

isolates (those who do not nominate friends and are not nominated) are missing on prestige. Finally, density indicates how "clumpy" or well connected a network is. Youth in dense networks tend to have friends that are friends with one another, while youth in less dense networks have friendships that are not so tight-knit. Operationally, it is defined by taking all of a particular youths' sent and received nominations and identifying the proportion of those friendship nominations that are also connected to one another, such that values close to one represent dense networks and values close to zero represent less dense networks.

While most of these measures are based on network data derived from friendship nominations, some measures examine integration into school structures and activities. Structural integration refers to a youth's integration into the various social structures that compose the school environment and are measured with three constructs: school connection and participation in extracurricular activities. Both school connection and extracurricular activities are used as a covariate and outcome variable in this study (see section "covariates").

Analysis

Survey-weighted regression models are developed to examine the link between immigration status and integration into adolescent peer friendship networks, controlling for the complex survey design presented in Add Health (Harris et al. 2009). Three strategies are used to develop the regression models. For dyadic integration (best friend and isolate)-dependent variables, logistic regression is employed. For network integration, two model types are included: first, negative binomial regression is used to model the count variable of number of friendship nominations, while standard linear regression is used for measures of centrality, social status, and density. Finally, linear regression is also used for structural integration variables school connection and extracurricular activities. The analytical approach taken in these analysis is similar to the work of South and Haynie's (2004) study of mobile adolescents also using Add Health data. To allow for comparison across models and ease of interpretation, scores for continuous measures (centrality, social status (prestige), density, school connection, and extracurricular activities) were standardized.

There have been significant methodological advances in the study of social networks in the past decade, particularly with the development of exponential random graph models (ERGMs) (Lusher et al. 2013). ERGMs provide a framework for estimating the network processes that could account for the observed ties in an existing network and thus allow researchers to examine social processes such as homophily, reciprocity, and social closure. Because the goal of this study is to examine potential disparities in traditional network measures and not to estimate the underlying social processes that gave rise to the observed networks in Add Health data, survey-weighted regression models were chosen over ERGMs as a methodological approach.

Results

Table 1 presents descriptive statistics of the study sample before development of the multiple imputation model and summarizes differences in study variables across first-, second-, and third-generation/native youth. Continuous measures are compared using one-way analysis of variance (ANOVA) and categorical measures are compared using a χ^2 test. Categorical measures with two percentages include both the column and row percentages—for example, 11.5% of third-generation youth are Hispanic, while 41.6% of Hispanic youth are third-generation. First-generation youth tended to be older ($p < .001$), had spent fewer years at the school ($p < .001$), had lower maternal education rates ($p < .001$), and participated in fewer extracurricular activities ($p < .001$) in comparison to second- and third-plus-generation youth. Generally, second-generation youth were more similar to their third-generation peers on study covariates. Hispanic and Asian youth were most evenly distributed across the three generations, while most White, Black, and Other/Mixed tended to be first-generation. However, it should be noted that youth who are White and/or Other/Mixed represent large proportions of first- and second-generation youth as their representation in the population overall is larger.

There were also important differences on measures of integration. In general, first-generation youth tended to be less popular ($p < .001$), less central ($p < .001$), more isolated ($p < .001$), have less social status ($p < .001$), and have fewer reciprocated friendships than their second- and third-generation peers. Third-generation youth were also positioned in denser networks where friendship groups are more tight-knit. Overall, first- and second-generation friendship groups tended to be more culturally diverse: the proportion of first- and second-generation immigrant friendship groups that were composed of same-race/ethnicity or same-generation peers was lower than that of their third-generation counterparts. These descriptive results suggest that while first-generation immigrant youth may be somewhat marginalized in adolescent social networks, their second-generation peers play central roles and are often on par with their third-generation peers.

Dyadic Integration

Regression analyses for dyadic integration at the individual friendship level are presented in Tables 2 and 3. For each outcome, two models are presented. The first model includes individual characteristics, covariates, the interaction between race/ethnicity and immigrant generation, the percentage of same-race/ethnicity and same-immigrant generation friendships by immigrant generation, and school variables. The second model removes the interactions between race/ethnicity and immigration and percent of same-race/ethnicity and same-immigration generation friends to instead focus on the interaction between school variables and immigrant generation.

Similar findings are noted for boys and girls for having a best friend of the same gender reciprocate the friendship. In comparison to White, third-generation/native students (reference group), higher grade and higher SES students (mother with

Table 1 Study variables by immigration status, with ANOVA comparisons

	3rd + generation		2nd generation		1st generation		Total		F or ChiSq	N
	Mean or %	SD	Mean or %	SD	Mean or %	SD	Mean or %	SD		
Age	14.91	1.73	14.89	1.7	15.53	1.71	14.96	1.73	246.49***	43,448
Gender (female)	51.2% (77.3%)		51.5 (13.5%)		50.4% (9.3%)				1.43	43,297
Grade	9.53	1.62	9.62	1.62	10.03	1.54	9.59	1.62	174.36***	43,310
Years in school	2.47	1.38	2.44	1.34	2.34	1.22	2.45	1.36	16.61***	43,443
Mother's education	8.2% (53.9%)		21.6% (25.0%)		28.1% (21.1%)				1574.02***	34,807
< HS degree										
HS degree	36.4% (83.1%)		27.8% (11.1%)		22.2% (5.7%)					34,807
College +	54.7% (80.1%)		47.9% (12.3%)		45.3% (7.5%)				154.71***	34,807
White	68.7% (91.3%)		35.1% (6.0%)		22.61% (2.7%)					
Hispanic	11.5% (41.6%)		47.1% (31.4%)		57.2% (27.0%)				6853.70***	38,758
Black	18.3% (91.3%)		7.4% (6.4%)		3.7% (2.3%)				925.12***	43,206
Asian	3.7% (29.6%)		25.7% (36.3%)		34.2% (34.1%)				6000.0***	43,206
Other	12.3% (61.2%)		24.8% (21.5%)		28.2% (17.3%)				1154.90***	43,206
% friends same generation	0.73	0.41	0.24	0.3	0.32	0.37	0.63	0.44	5183.50***	43,461
% friends same race/ethnicity	0.64	0.41	0.52	0.42	0.55	0.44	0.62	0.42	251.81***	43,106
School connection	2.39	0.9	2.41	0.87	2.4	0.84	2.39	0.89	1.61	39,684
Extracurricular activities	2.14	2.42	2.19	2.72	1.83	2.45	2.12	2.47	32.72***	43,560
Popularity (in-degree)	4.32	3.63	4	3.34	3.14	2.85	4.16	3.55	211.94***	43,560
Centrality	0.78	0.64	0.79	0.66	0.66	0.65	0.77	0.64	66.78***	43,560
Social status (prestige)	0.14	0.05	0.13	0.05	0.1	0.05	0.14	0.05	1084.89***	39,191
Best male friend reciprocates	53.4%		52.3%		48.0%				15.52***	18,460
Best female friend reciprocates	63.9%		60.5%		41.8%				30.21***	21,416

Table 1 continued

	3rd + generation		2nd generation		1st generation		Total		F or ChiSq	N
	Mean or %	SD	Mean or %	SD	Mean or %	SD	Mean or %	SD		
Density	0.29	0.14	0.31	0.15	0.33	0.16	0.3	0.15	141.76***	41,782
Isolate	3.7%		4.0%		7.5%				208.36***	43,560

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2 Friendship integration: best friends reciprocate as friends

	Best friend reciprocates (boy) (n = 10,358)				Best friend reciprocates (girl) (n = 12,535)			
	OR	CI	OR	CI	OR	CI	OR	CI
Individual characteristics								
Gender (omitted)								
Age	0.91	0.83–1	0.91*	0.82–1	0.79**	0.68–0.9	0.78**	0.68–0.9
Grade	1.16**	1.05–1.29	1.16**	1.05–1.29	1.24**	1.09–1.42	1.25**	1.09–1.43
Years in school	1.06	0.95–1.18	1.06	0.95–1.18	1.14**	1.05–1.23	1.14**	1.05–1.23
Mother's Ed: HS grad	1.08	0.87–1.35	1.08	0.87–1.35	1.34**	1.09–1.64	1.33**	1.09–1.61
Mother's Ed: College +	1.29*	1.07–1.57	1.29**	1.07–1.57	1.41**	1.15–1.73	1.39**	1.14–1.7
Hispanic	0.95	0.72–1.24	0.97	0.77–1.23	0.76*	0.58–0.98	0.8*	0.66–0.97
Black	0.73*	0.57–0.93	0.73*	0.56–0.95	0.69***	0.58–0.83	0.69***	0.58–0.82
Asian	0.82	0.61–1.1	1.18	0.94–1.49	0.89	0.6–1.32	1.09	0.86–1.38
Other	0.93	0.67–1.3	0.91	0.72–1.15	0.86	0.66–1.12	0.94	0.74–1.2
1st-generation immigrant	0.50*	0.26–0.96	0.88	0.58–1.33	0.42*	0.19–0.91	0.71	0.49–1.02
2nd-generation immigrant	0.93	0.62–1.38	0.99	0.79–1.25	0.84	0.58–1.22	0.95	0.75–1.19
% friends same gen status	0.94	0.84–1.06	0.98	0.87–1.09	0.95	0.8–1.12	0.94	0.82–1.08
% friends same race/eth	1.12*	1.01–1.24	1.10*	1.01–1.2	0.99	0.9–1.10	1.02	0.93–1.12
Race/eth × immigration								
Hispanic × 1st gen			1.36	0.75–2.49			1.71	0.8–3.66
Hispanic × 2nd gen			1.14	0.76–1.72			1.14	0.71–1.84
Black × 1st gen			2.20	0.81–5.96			1.00	0.44–2.31
Black × 2nd gen			0.64	0.28–1.47			0.93	0.55–1.57
Asian × 1st gen			2.29*	1.13–4.64			2.09	0.86–5.09
Asian × 2nd gen			1.82*	1.1–3.01			1.58	0.9–2.77
Other × 1st gen			1.19	0.6–2.35			1.36	0.87–2.12

Table 2 continued

	Best friend reciprocates (boy) (n = 10,358)				Best friend reciprocates (girl) (n = 12,535)			
	OR	CI	OR	CI	OR	CI	OR	CI
Other × 2nd gen	0.87	0.54–1.39			1.41	0.98–2.03		
% Friends × immigration								
% frd same gen status × 1st gen	0.93	0.71–1.21			0.86	0.63–1.15		
% frd same gen status × 2nd gen	1.04	0.79–1.36			1.04	0.79–1.36		
% frd same race/eth × 1st gen	1.14	0.85–1.52			1.11	0.86–1.43		
% frd same race/eth × 2 gen	0.88	0.69–1.12			1.10	0.91–1.34		
School variables								
% immigrant	1.01	1.00–1.01	1.00	1.00–1.01	1.01	1–1.02	1.01	1–1.02
% students of color	0.99**	0.99–1	0.99**	0.99–1	0.99***	0.99–1	0.99***	0.99–1
School size (/100)	1.00	1.00–1.00	1.00	1.00–1.00	1.00*	1.00–1.00	1.00*	1.00–1.00
School × generation status								
% immigrant × 1st gen	0.81	0.64–1.01			0.97	0.75–1.24		
% immigrant × 2nd gen	1.00	0.79–1.28			1.00	0.72–1.37		
% students of color × 1st gen	1.36	0.96–1.93			1.25	0.89–1.76		
% students of color × 2nd gen	0.88	0.69–1.12			1.13	0.89–1.45		
Intercept	1.54**	1.18–2.02	1.59**	1.23–2.07	2.48***	1.84–3.35	2.46***	1.83–3.31

$* p < .05$, $** p < .01$, $*** p < .001$

** Male, White, third-generation/native youth with Mother's education less than high school compose the reference group

Table 3 Friendship integration: isolates

	Isolate ($n = 43,123$)			
	OR	CI	OR	CI
Individual characteristics				
Age	1.45***	1.34–1.58	1.45***	1.33–1.58
Gender (1 = female)	0.55***	0.50–0.62	0.55***	0.50–0.61
Grade	0.92	0.78–1.08	0.92	0.78–1.09
Years in school	0.75***	0.66–0.85	0.75***	0.66–0.84
Mother's Ed: HS grad	0.88	0.68–1.13	0.88	0.68–1.14
Mother's Ed: College +	0.71**	0.55–0.90	0.71**	0.55–0.91
Hispanic	1.71**	1.19-2.46	1.51*	1.10–2.08
Black	1.87**	1.32–2.67	1.81**	1.29–2.52
Asian	1.56*	1.03–2.37	1.27	0.92–1.75
Other	0.77	0.56–1.06	0.79	0.62–1.01
1st-generation immigrant	2.11**	1.34–3.32	1.29	0.90–1.85
2nd-generation immigrant	1.10	0.72–1.68	0.90	0.70–1.14
Race/eth × immigration				
Hispanic × 1st gen	0.49*	0.27–0.88		
Hispanic × 2nd gen	0.57*	0.35–0.94		
Black × 1st gen	1.22	0.61–2.42		
Black × 2nd gen	0.66	0.27–1.61		
Asian × 1st gen	0.37**	0.18–0.74		
Asian × 2nd gen	0.74	0.42–1.33		
Other × 1st gen	1.16	0.72–1.88		
Other × 2nd gen	0.95	0.57–1.60		
School variables				
% immigrant	1.00	0.99–1.02	1.00	0.99–1.02
% students of color	1.01**	1.00–1.02	1.01**	1.01–1.02
School size (/100)	1.00	1.00–1.00	1.00	1.00–1.00
School × generation status				
% immigrant × 1st gen			1.01	0.78–1.31
% immigrant × 2nd gen			0.88	0.68–1.14
% students of color × 1st gen			0.81	0.61–1.07
% students of color × 2nd gen			0.89	0.65–1.20
Intercept	2.46***	1.83–3.31	0.03***	0.02–0.04

* $p < .05$, ** $p < .01$, *** $p < .001$

** Male, White, third-generation/native youth with Mother's education less than high school compose the reference group

college degree) more likely to have reciprocated friendships, while Black and first-generation immigrant youth were each less likely to have a reciprocated friendship, with the strength and magnitude of these relationships being slightly stronger for girls. The only significant interaction effect between race/ethnicity and immigration

status was for first- and second-generation Asian boys, who were 2.29 and 1.82 (respectively) (CI 1.13–4.64; CI 1.10–3.01) times as likely to have reciprocated friendships. Considering also the main effect of first-generation on reciprocation, one could interpret these results to conclude that controlling for other factors, first-generation youth are less likely to have a reciprocated best friend with the exception of Asian boys.

The composition of a friendship group also significantly predicted likelihood of a best friend nomination, such that a standard deviation increase in the percentage of friend of the same race/ethnicity was associated with a slight increase in the odds of having a best friend reciprocate for boys, but not for girls. None of the interactions between the composition of a youth's friendship group (% same immigrant and % same race/ethnicity) were significant. The percentage of students of color school-level variable was significant across models, but the magnitude of the effect was comparatively small.

The two models in Table 3 present results for a logistic model predicting isolation, or the likelihood that a youth neither nominates a friend nor is nominated as a friend. Across both models, younger age ($p < .001$), gender (female) ($p < .001$), years at the school ($p < .001$), and Mother having a college degree ($p < .001$) were each protective against isolation.

There were important differences for immigrants across ethnic groups. The main effect for immigrant generation in the first model, representing the reference group (White immigrants), indicated that White first-generation immigrants are 2.11 times as likely to be an isolate (CI 1.34–3.32). However, Hispanic first- and second-generation youth were less likely to be isolates (OR = .49, CI .27–.88; OR = .57, CI .35–.94, respectively), along with first-generation Asian youth (OR = .37, CI .18–.74). These findings suggest that immigrant generation may not be so isolating for Hispanic and Asian youth, while White, Black, and Other/Mixed third-generation youth may be at greater risk for isolation. In the second model with these interactions between race/ethnicity and immigrant generation removed, the main effect of immigrant generation is not significant. In contrast to other models, variables for percent of friendship group by same race/ethnicity and same immigrant generation were removed as isolates by definition are not members of a friendship group. School-level effects were either minor or non-significant, and none of the cross-level interactions between the composition of the school and immigrant generation were significant.

Network Integration

Table 4 presents the results of survey-weighted negative binomial regression and linear regression models predicting popularity (in-degree) and centrality. In the first model, White first–generation immigrants (reference group) were significantly less likely to receive friendship nominations (IRR = 0.78, CI .68–.90) after controlling for individual demographic characteristics including age, gender, grade, years at the school, and parent's education level. However, a standard deviation increase in the percentage of friends with the same generation status was associated with a 9% increased likelihood of another friendship nomination (IRR = 1.09, CI 1.06–1.12),

Table 4 Network integration: popularity and centrality

	Popularity (in-degree) (n = 43,123)				Centrality (n = 43,123)			
	IRR	CI	IRR	CI	β	SE	β	SE
Individual characteristics								
Age	0.95**	0.92–0.99	0.95**	0.92–0.99	−0.13***	0.02	−0.13***	0.02
Gender (1 = female)	1.05***	1.02–1.07	1.05***	1.02–1.07	0.05*	0.02	0.05*	0.02
Grade	0.99	0.95–1.03	0.99	0.95–1.03	<.01	0.02	<.01	0.02
Years in school	1.11***	1.09–1.13	1.11***	1.09–1.13	0.07***	0.01	0.07***	0.01
Mother's Ed: HS grad	1.11***	1.05–1.17	1.12***	1.06–1.18	0.11***	0.02	0.12***	0.02
Mother's Ed: College +	1.17***	1.12–1.24	1.18***	1.12–1.24	0.21***	0.02	0.22***	0.02
Hispanic	1.04	0.98–1.1	1.05	0.98–1.11	0.08*	0.03	0.04	0.03
Black	0.91*	0.85–0.98	0.93	0.86–1	−0.24***	0.04	−0.21***	0.05
Asian	0.95	0.87–1.04	1.02	0.93–1.1	0.01	0.04	0.05	0.04
Other	1.03	0.95–1.11	1.03	0.97–1.1	0.14***	0.03	0.12***	0.03
1st-generation immigrant	0.78***	0.68–0.90	0.93	0.84–1.03	−0.04	0.09	0.11	0.06
2nd-generation immigrant	1.02	0.93–1.13	1.14***	1.08–1.2	0.21***	0.05	0.33***	0.03
% friends same gen status	1.09***	1.06–1.12	1.08***	1.05–1.1	0.25***	0.03	0.23***	0.02
% friends same race/eth	1.10***	1.07–1.13	1.11***	1.08–1.13	0.25***	0.02	0.25***	0.02
Race/eth × immigration								
Hispanic × 1st gen			1.06	0.91–1.24			−0.12	0.07
Hispanic × 2nd gen			1.05	0.95–1.18			−0.05	0.05
Black × 1st gen			1.12	0.88–1.42			0.28	0.14
Black × 2nd gen			1.10	0.97–1.25			0.25**	0.07
Asian × 1st gen			1.24**	1.08–1.43			0.10	0.08
Asian × 2nd gen			1.13*	1.01–1.27			0.04	0.08
Other × 1st gen			1.03	0.88–1.22			−0.02	0.07

Table 4 continued

	Popularity (in-degree) (n = 43,123)				Centrality (n = 43,123)			
	IRR	CI	IRR	CI	β	SE	β	SE
Other × 2nd gen	1.03	0.93–1.14			−0.08	0.05		
% Friends × immigration								
% frd same gen status × 1st gen	0.91*	0.83–1.00			−0.21***	0.04		
% frd same gen status × 2nd gen	0.95	0.90–1.00			−0.11**	0.04		
% frd same race/eth × 1st gen	1.07*	1.00–1.13			0.07	0.04		
% frd same race/eth × 2nd gen	1.01	0.97–1.06			<.01	0.03		
School composition								
% immigrant	1.00	1.00–1.01	1.00	1.00–1.01	<.01*	<.01	<.01*	<.01
% students of color	0.99***	0.99–1.00	1.00***	0.99–1.00	<.01	<.01	<.01	<.01
School size (/100)	1.00	1.00–1.00	1.00	1.00–1.00	<.01	<.01	<.01	<.01
School × generation status								
% immigrant × 1st gen			0.92	0.83–1.01			−0.07*	0.03
% immigrant × 2nd gen			0.93	0.87–1.00			−0.04	0.03
% students of color × 1st gen			1.15**	1.05–1.27			0.05	0.04
% students of color × 2nd gen			1.06*	1.00–1.12			−0.06*	0.03
Intercept	4.30***	3.89–4.75	4.29***	3.88–4.74	−0.16***	0.02	−0.16***	0.03

* p < .05, ** p < .01, *** p < .001

** Male, White, third-generation/native youth with Mother's education less than high school compose the reference group

while a similar increase in friends of the same race/ethnicity resulted in an 10% increase (IRR = 1.10, CI 1.07–1.13). Significant interaction effects were observed for first (IRR = 1.24, CI 1.08–1.43)-generation Asian youth. In addition, the interaction between percent same immigrant generation and first-generation immigrant (IRR = .91, CI .83–1.00) as well as percent same race/ethnic friendship and first-generation (IRR = 1.07, CI 1.00–1.13) was significant, but in opposite directions. In the second model predicting popularity, similar relationships are observed among study variables. Of note, the main effect of percentage of students of color (IRR = 1.00 CI .99–1.00) and the interaction between the percentage of students of color and generation status was significant for both first- (IRR = 1.15, CI 1.04–1.27) and second-generation (IRR = 1.06, CI 1.00–1.12) immigrant youth, suggesting that immigrant youth in schools with higher percentages of youth of color are more likely to receive a friendship nomination.

The second two models predicting centrality yielded similar results to the first model. Among the main effects, Black youth were less likely to be central in their networks ($p < .001$), while second-generation immigrants were more likely to be central ($p < .001$). Similarly, positive main effects are observed for the percentage of friends with the same generation status ($p < .001$) and race/ethnicity ($p < .001$). Among interactions, a significant interaction was observed among second-generation ($\beta = .25$, $p < .01$) Black youth suggesting that this sub-population is more central than their Black 3rd/native peers. Additionally, the interaction of the percentage of friends with the same generation status by first ($\beta = -.21$, $p < .001$) and second ($\beta = -.11$, $p < .01$) generation was significant. This finding is consistent with the results from the dyadic integration analyses and provides further evidence to the idea that immigrant youth become more integrated when making friends with friends not of the same immigration generation. The main effects for school composition indicate that an increase in the percentage of immigrant youth in the school is associated with a small decrease in centrality ($\beta = < .01$, $p < .001$). Similar results are observed in the final model, with an added significant interaction effect between the percentage of students of color in the school and second-generation status ($\beta = -.06$, $p < .001$) and the percentage of first-generation immigrants and first-generation youth. Overall, theses interactions provide some evidence that immigrant youth placed in more diverse schools may be less central than their peers.

Table 5 presents the results of social status and density. For social status, the main effect of first-generation immigrants ($\beta = -.50$, $p < .001$) was associated with lower social status, though significant interactions for first- and second-generation Asian youth suggest that this effect may only be negative for other groups. Both having friends of a similar generation status and race/ethnicity were each associated with increases in social status. However, when taking into account the interaction effects by immigrant generation, it appears that same-culture friendships for immigrant youth do not have the same benefits with respect to social status as they do for third-generation peers. School composition also plays a role in predicting social status for immigrant youth. In general, results from interactions in the second model indicate that attending schools with higher proportions of students

Table 5 Network integration: social status and density

	Social status (proximity prestige) (n = 38,673)				Density (n = 41,269)			
	β	SE	β	SE	β	SE	β	SE
Individual characteristics								
Age	−0.01	0.03	−0.01	0.03	0.03**	0.01	0.03**	0.01
Gender (1 = female)	0.04*	0.02	0.04**	0.01	0.11***	0.02	0.11***	0.02
Grade	0.07*	0.03	0.07*	0.03	0.07***	0.01	0.07***	0.01
Years in school	0.05***	0.01	0.05***	0.01	−0.06***	0.01	−0.06***	0.01
Mother's Ed: HS grad	0.08	0.05	0.08	0.05	<.01	0.03	<.01	0.03
Mother's Ed: College +	0.05	0.06	0.06	0.05	0.02	0.03	0.02	0.03
Hispanic	0.05	0.05	0.08	0.05	−0.1**	0.03	−0.07*	0.03
Black	−0.10	0.08	−0.06	0.08	−0.07*	0.04	−0.08*	0.04
Asian	−0.27**	0.09	−0.15*	0.07	0.05	0.06	0.04	0.05
Other	0.07	0.09	0.11	0.08	−0.08**	0.03	−0.07**	0.02
1st-generation immigrant	−0.50***	0.13	−0.13	0.07	0.04	0.08	0.05	0.05
2nd-generation immigrant	−0.17	0.13	0.12*	0.05	−0.02	0.07	−0.09*	0.04
% friends same gen status	0.06***	0.01	0.04**	0.01	−0.09***	0.02	−0.08***	0.02
% friends same race/eth	0.06**	0.02	0.07***	0.02	−0.06***	0.01	−0.06***	0.01
Race/eth × immigration								
Hispanic × 1st gen	0.13	0.12			0.10	0.10		
Hispanic × 2nd gen	0.16	0.16			0.06	0.06		
Black × 1st gen	0.11	0.16			−0.07	0.16		
Black × 2nd gen	0.10	0.17			−0.04	0.06		
Asian × 1st gen	0.36**	0.11			0.05	0.09		
Asian × 2nd gen	0.34**	0.13			−0.02	0.09		
Other × 1st gen	0.09	0.10			0.10	0.07		
Other × 2nd gen	0.17	0.09			0.03	0.05		
% Friends × immigration								
% frd same gen status × 1st gen	−0.21**	0.07			0.1*	0.04		
% frd same gen status × 2nd gen	−0.12*	0.05			0.09*	0.04		
% frd same race/eth × 1st gen	0.02	0.04			0.02	0.04		
% frd same race/eth × 2nd gen	0.06	0.04			−0.03	0.03		
School variables								
% immigrant	0.01	0.01	0.01	0.01	0.01**	<.01	0.01**	<.01

Table 5 continued

	Social status (proximity prestige) (n = 38,673)				Density (n = 41,269)			
	β	SE	β	SE	β	SE	β	SE
% students of color	−0.01***	<.01	−0.01***	<.01	<.01	<.01	<.01	<.01
School size (/100)	<.01***	<.01	<.01***	<.01	<.01**	<.01	<.01**	<.01
School × generation status								
% immigrant × 1st gen			−0.23*	0.11			0.03	0.04
% immigrant × 2nd gen			−0.17*	0.08			0.04	0.04
% students of color × 1st gen			0.30***	0.08			−0.01	0.04
% students of color × 2nd gen			0.16*	0.07			<.01	0.04
Intercept	0.87***	0.13	0.87***	0.13	0.04	0.08	0.03	0.08

* $p < .05$, ** $p < .01$, *** $p < .001$

** Male, White, third-generation/native youth with Mother's education less than high school compose the reference group

of color but *lower* proportions of immigrant youth tends to provide social status benefits to immigrants.

The two models predicting density indicate that Black ($p < .05$), Hispanic ($p < .05$), and Other/Mixed ($p < .01$) youth have slightly less dense networks. Additionally, the percentages of friends of same generation ($p < .001$) and race/ethnicity ($p < .001$) were each negatively associated with density, suggesting that these indicators predict less tight-knit friendship groups. Interactions with school-level variables were either non-significant or small in magnitude.

Institutional Integration

Table 6 presents the results for structural integration, measured in terms of connection to school and participation in extracurricular activities. For school connection, Black ($p < .001$) and Other/Mixed youth ($p < .001$) were associated with higher levels of school connection, while having friends of a similar race/ethnicity ($p < .001$) and immigrant generation ($p < .001$) was associated with lower school connection.

A similar pattern emerges for predictors of extracurricular activities, with some important differences. In the first (third) model, youth with higher rates of percent friends with the same generation status ($\beta = .04$, $p < .01$) and racial/ethnic background ($\beta = .04$, $p < .05$) were each significantly associated with an increased participation rate of extracurricular activities, but significant interaction effects suggest that these benefits are unique to third-generation or native youth. In the second (fourth) model, effects are observed for Asian ($\beta = .14$, $p < .01$), first-generation ($\beta = .17$, $p < .01$), second-generation ($\beta = .15$, $p < .001$), and the

Table 6 Institutional integration: school connection and extracurricular activities

	School connection (n = 39,116)				Extracurricular activities (n = 43,123)			
	β	SE	β	SE	β	SE	B	SE
Individual characteristics								
Age	0.06***	0.02	0.07***	0.02	−0.05*	0.02	−0.06**	0.02
Gender (1 = female)	0.10***	0.02	0.10***	0.02	0.07**	0.02	0.07**	0.02
Grade	0.06**	0.02	0.06**	0.02	<.01	0.02	<.01	0.02
Years in school	−0.06***	0.01	−0.06***	0.01	0.07***	0.02	0.07***	0.02
Mother's Ed: HS grad	−0.2***	0.03	−0.2***	0.03	0.08*	0.03	0.08*	0.03
Mother's Ed: College +	−0.29***	0.03	−0.3***	0.03	0.29***	0.03	0.30***	0.03
Hispanic	−0.07	0.03	−0.07*	0.03	−0.04	0.03	−0.02	0.03
Black	0.12**	0.04	0.12**	0.04	0.04	0.04	0.06	0.04
Asian	−0.01	0.07	0.10	0.06	0.06	0.06	0.14**	0.05
Other	0.09**	0.03	0.07**	0.02	0.06	0.04	0.06*	0.03
1st-generation immigrant	−0.01	0.07	−0.10	0.06	−0.08	0.09	0.17**	0.05
2nd-generation immigrant	−0.08	0.05	−0.05	0.04	−0.15	0.13	0.15***	0.03
% friends same gen status	−0.06***	0.01	−0.05***	0.01	0.05***	0.01	0.05***	0.01
% friends same race/eth	−0.08***	0.01	−0.08***	0.01	0.03*	0.02	0.02	0.01
Race/eth × immigration								
Hispanic × 1st gen	−0.12	0.08			−0.04	0.10		
Hispanic × 2nd gen	0.09	0.06			0.18	0.11		
Black × 1st gen	−0.10	0.14			0.10	0.13		
Black × 2nd gen	0.08	0.06			0.18	0.15		
Asian × 1st gen	0.13	0.10			0.13	0.08		
Asian × 2nd gen	0.13	0.08			0.28	0.17		
Other × 1st gen	−0.15	0.09			0.01	0.06		
Other × 2nd gen	−0.01	0.06			0.05	0.10		
% Friends × immigration								
% frd same gen status × 1st gen	0.02	0.04			−0.12**	0.04		
% frd same gen status × 2nd gen	0.02	0.03			−0.11*	0.05		
% frd same race/eth × 1st gen	0.03	0.03			−0.08	0.04		
% frd same race/eth × 2nd gen	0.04	0.03			−0.03	0.03		
School variables								
% immigrant	<.01	<.01	<.01	<.01	0.01***	<.01	0.01***	<.01

Table 6 continued

	School connection ($n = 39{,}116$)				Extracurricular activities ($n = 43{,}123$)			
	β	SE	β	SE	β	SE	B	SE
% students of color	<.01	<.01	<.01	<.01	<.01**	<.01	<.01**	<.01
School size (/100)	<.01***	<.01	<.01**	<.01	<.01***	<.01	<.01***	<.01
School × generation status								
% immigrant × 1st gen			0.03	0.05			−0.13**	0.04
% immigrant × 2nd gen			0.02	0.03			−0.12*	0.05
% students of color × 1st gen			−0.09	0.06			−0.09	0.05
% students of color × 2nd gen			0.01	0.03			0.03	0.05
Intercept	0.06	0.05	0.06	0.05	0.06	0.07	0.03	0.07

* $p < .05$, ** $p < .01$, *** $p < .001$

** Male, White, third-generation/native youth with Mother's education less than high school compose the reference group

percentage of friends of the same generation status ($\beta = .05\ p < .05$). All three school predictors are significant, but the interaction effects suggest again differences across immigrant generation. Attendance in schools with a greater proportion of immigrant youth is associated with lower participation in extracurricular activities for immigrant youth.

Discussion

The primary goal of this study was to examine whether immigrant youth are integrated into the social world of schools, including friendship networks and institutional structures. Generally, evidence from this study supports optimistic visions of immigrant integration in the United States (Alba et al. 2011; Waters and Gerstein Pineau 2015) which highlight the success of the second-generation in doing better than their parents with respect to a wide variety of social outcomes. In general, while first-generation youth experienced some social marginalization, second-generation youth were located in advantageous positions in social networks and were well integrated into school institutional structures. While there are some differences that suggest second-generation integration to be the strongest among Asian youth, there was less evidence that second-generation youth experienced downward assimilation. In fact, it was quite the opposite: second-generation youth navigated school social relationships with aplomb. This may highlight an important strength afforded to second-generation youth whose bicultural backgrounds may have made them particularly adept at navigating multicultural spaces.

Nevertheless, the reader is cautioned against adopting what Haller et al. (2011) refer to as "rosy lenses" when describing the successes of the second-generation. Important differences across racial and ethnic groups place some immigrant youth in positions of marginalization and disadvantage. In particular, for both first- and second-generation youth, Asian youth tended to occupy the most advanced social positions, while Black and White immigrant youth were more marginalized—with Hispanic immigrant youth somewhere in between. It is possible that the established history of Asian and Hispanic immigrants in the US schools alongside an increased opportunity for same-culture interactions with other youth of the same culture accounts for these differences. Nevertheless, these differences do question whether opportunities for social integration in school communities are equally available to youth of all immigrant backgrounds.

Perhaps, the primary contribution of this study was the emergence of a pattern across most models: that the main effects for first-generation youth were often not significant, or significant with small effects, but when interactions were included with race and ethnicity patterns of stratification emerged. The most significant outlier among racial and ethnic groups was first-generation Asian youth, who in many cases were similar to or even surpassed their native-born peers with respect to dyadic, network, and institutional integration. Conversely, the significant main effects of first-generation immigrants in conjunction with non-significant effects for Hispanic, Black, and Other/Mixed interaction terms suggest that these groups may in turn be at greater risk for social marginalization. A clear example of this phenomenon appears in Table 5, where the main effect for first-generation was negatively associated with social status (equal in magnitude to a half a standard deviation in the value of social status), suggesting that membership in non-Asian immigrant groups is associated with decreased social status.

Conversely, in most cases second-generation youth were integrated into school communities at comparable or higher levels to their native peers. This evidence breaks from previous areas of research (Cherng et al. 2014) in demonstrating that second-generation youth are more likely to be popular, central, of higher social status, and in less dense networks—appearing much more like insiders than outsiders in youth friendship networks. The relative success of second-generation youth across racial and ethnic groups offers more positive evidence to the potential of youth from immigrant families to navigate school social contexts, and should be interpreted as a positive sign that processes of integration were occurring in this sample.

The social structures within which youth are embedded—namely the cultural composition of their direct friendship group as well as the cultural composition of the school—were also associated with a variety of outcomes highlighting the importance of local contexts when understanding immigrant integration in school settings. With respect to network integration, youth were more popular, central, had higher social status, and were in less dense networks when having friends of the same race/ethnicity, though results for institutional integration were more mixed. However, the results for having friends of the same immigrant generation were more nuanced. Generally, having friends of the same immigrant generation yielded social benefits to third-generation youth but not to first- and second-generation

youth. Put another way, native youth were rewarded with higher levels of popularity, centrality, and social status when their friendship groups included fewer immigrants. The one exception to this pattern was with respect to school connection, where percent same-race/ethnicity and same-generation friendships were both associated with lower social connection. It is possible, however, that the causal direction of this relationship is reversed—that youth who feel less connected to their teachers and broader school community are more likely to form same-culture friendships. These same-culture friendships foster the kind of "bonding" social capital as identified by Putnam (2000), in order to help immigrant youth develop a sense of security and cohesion in their social world. Regardless of direction, it is clear that cultural composition of a youth's friendship group tends to offer benefits to immigrant youth when that composition is of the same-race but *not* the same-generation peers. To continue Stanton-Salazar's "social freeway" analogy, same-race relationships with second-generation and native peers may be the "onramp" for first-generation youth, providing access to social capital, resources, and opportunities afforded to mainstream youth.

One possible interpretation of the findings related to same-culture friendships is that immigrant youth—particularly those of the first-generation—are caught between two opposing pressures: the pressure to form strong same-generation friendships that provide social support and reinforce identity formation, and conversely the pressure to gain popularity and social status through the formation of friendships with mainstream youth. This dichotomy is reminiscent of Fordham's and Ogbu (1986) and Ogbu (2004) notion of oppositional collective identity and cultural frame of reference. Immigrant youth may be challenged by the "burden of Acting American", forced to reject portions of their immigrant identity and adopt mainstream culture in order to gain social advantages and access to the coveted social capital available to those connected to social freeways. While this study does not specifically examine the processes of friendship development, these results question whether developing friendships with native peers—and the social prestige that these friendships would garner—may also incentivize a movement away from an ethnic and cultural identity in favor of assimilation into the American mainstream.

In general, the relationship between school cultural composition and integration was modest, as most models yielded either non-significant or significant with low-magnitude relationships. There are two exceptions to this finding: the indicator for first- and second-generation immigrant youth was associated with greater popularity and social status as the percentage of students of color increased and students who are immigrants decreased. This finding provides additional evidence that same-race/ethnicity friendships tend to support integration processes, while same-generation friendships serve to marginalize immigrant youth. Nevertheless, it should be noted that most relationships between school variables and study outcomes were generally weak in magnitude, suggesting that the school-level indicators of cultural composition and school size are likely not the most important theoretical predictors of integration outcomes.

Implications and Limitations

Three critical implications can be drawn from the evidence provided in this study. First, the success of second-generation youth in successfully navigating school social contexts and integrating into social networks and institutional structures offers evidence of a positive story of integration. However, there remain important differences across racial and ethnic groups suggesting that the successful integration story may not be true for all groups in all social contexts. In particular, White, Black, and to some extent Hispanic first-generation immigrants may be particularly vulnerable to experiencing social marginalization in friendship networks. Finally, the third implication is the importance of understanding how the cultural composition of immigrant youth's friendship networks is associated with integration outcomes. Same-culture friendships provide bonding and support, but may in turn have consequences with respect to access to the resources and opportunities available to mainstream youth through school relationships.

It is argued here that positive signs of immigrant integration were observed in a nationally representative sample of schools in the 1994–1995 school year. What this study cannot claim is whether these same processes of structural integration are occurring at the time of the writing of this paper, 20 years after the data were collected. The demographic landscape of youth in American schools and the composition of American schools have changed dramatically in the past 20 years (Orfield and Frankenburg 2014; Taylor 2014) and schools are becoming increasingly culturally and linguistically diverse (Scanlan and López 2014). While some have rightly argued that increased diversity does not necessarily lead to increased integration (Lichter 2013), the evidence in this study suggests that in schools with immigrant populations (1) integration processes can occur and (2) these processes vary by cultural and ethnic group.

In addition, it should be noted that definitions of friendship are inherently cultured and will carry different meanings for youth from different cultural backgrounds. Because all friendship nomination data asked youth to nominate up to five male and female friends, it is possible that youth may have responded to this question differently as a result of different cultural definitions of friendship. The concept of friendship is further complicated by current adolescent social practices in online spaces including social media site applications. Future research may continue to develop how social network measures are collected and measured to ensure that the observed data accurately reflect the social relationships they intend to represent.

Friendship is also a gendered phenomenon. While the focus of this study was limited to race, ethnicity, and immigrant generation in order to maintain parsimony, future research might examine how gender is associated with social integration across racial, ethnic, and immigrant groups.

In summary, school leaders should consider how race, ethnicity, and immigration status interact when designing culturally and linguistically responsive programs and policies. First-generation youth bring many strengths to school communities and often outperform their peers on a variety of social and educational outcomes (Bui 2013; Crosnoe and López Turley 2011; Jackson 2011; Salas-Wright et al. 2015).

Second-generation youth similarly outperform mainstream peers and also bring the advantage of being well connected and skilled in navigating multicultural environments. Rather than focusing on the challenges of language and cultural differences, how might schools capitalize on the strengths of these groups, foster cross-generational connections, and provide opportunities for youth of different backgrounds to learn from one another? Such efforts would shift the narrative of immigrant integration in school communities to focus on the assets and strengths that youth from immigrant families bring to their schools, and in turn foster bidirectional, mutually beneficial processes of learning and social interaction.

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