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# Variation Across Hispanic Immigrant Generations in Parent Social Capital, College-Aligned Actions, and Four-Year College Enrollment

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*Not beginning college at a four-year institution has been demonstrated as one key obstacle to equitable rates of bachelor's degree attainment among Hispanic individuals in the United States. Drawing on nationally representative longitudinal data and social capital theory, this research investigates the process of four-year college enrollment among different immigrant generations of Hispanic adolescents. Of particular interest is how parents of Hispanic youth use resources embedded in their social networks to promote their children's engagement in college-aligned actions and whether this process varies according to student immigrant generation status. Results suggest that regardless of immigrant generation, Hispanic students who take instrumental steps during high school that are aligned with admission to college have a greater probability of initially enrolling in a four-year institution. Importantly, however, the influence of different forms of parent social capital during the process of four-year college enrollment varies markedly according to student immigrant generation.*

**KEYWORDS:** Hispanic, immigrant, postsecondary, social capital theory

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Rapid growth in the immigrant share of the college-age population is occurring at a time when a postsecondary education has never been more important to individual economic and social well-being (Kim & Díaz, 2013). Approximately 23% of U.S. undergraduates are immigrants (the first generation) or the children of immigrants (the second generation), and this share is expected to grow markedly in the next decade (Staklis & Horn, 2012). Yet, while Hispanic youth make up no less than one-fifth of U.S. public school students and while over half of immigrant youth in the United States are of Hispanic or Latino origin, the relationship between immigrant generation status and college enrollment specifically among Hispanic youth has received limited research attention (Kim & Díaz, 2013). This oversight is concerning given that the large and growing Hispanic population, immigrant and native born, will contribute importantly to the nation's next chapter (Baum & Flores, 2011).

We investigate four-year college enrollment across three different immigrant generations of Hispanic adolescents from a critical quantitative perspective (Stage, 2007; Stage & Wells, 2014), acknowledging that widely accepted models and assumptions may not fit the experiences of historically marginalized groups, including immigrant youth (Stage, 2007). Most studies of educational attainment assume that parents from different backgrounds transmit status advantages to children at a similar rate. Yet, recent evidence indicates that Hispanic parents face unique constraints as they attempt to transmit socio-economic advantages to their offspring (Alon, Domina, & Tienda, 2010; O'Connor, Hammack, & Scott, 2010). Moreover, Alon and colleagues (2010) found differences in returns to parent education *among* Hispanic students of different immigrant generation status. As one explanation, Tienda (2011) proposed that the ease with which Hispanic parents access and leverage forms of social capital that can facilitate four-year college enrollment varies with children's immigrant generation status. We investigate this possibility.

## The Current Study

Informed by a critical quantitative perspective, we draw on a nationally representative longitudinal data set and social capital theory to examine whether the process of four-year college enrollment unfolds differently across three immigrant generations of Hispanic adolescents. The focus on four-year college enrollment acknowledges prior evidence demonstrating that not beginning college at a four-year institution constitutes one key obstacle to equitable rates of bachelor's degree attainment among Hispanic students relative to other racial/ethnic groups (Desmond & Turley, 2009; Gándara & Contreras, 2009).

While numerous studies have employed social capital theory to illuminate access and barriers to accurate and timely college information among Hispanic parents and youth, less is known about variation in the role of

parent social capital during college preparation and enrollment according to immigrant generation status among Hispanic youth. We focus on the potential for parents' relationships—with their children, with parents of their children's friends, and with school staff—to influence this process. This focus brings attention to the provocative but under-investigated notion that the same forms of parent social capital might be variably convertible across groups (Ream & Palardy, 2008) and such differences may influence educational processes in ways that are typically overlooked or ascribed to variation in parent income or education (Ream, 2005). We also pay particular attention to whether and how this process varies according to immigrant generation status (Tienda, 2011).

While the relationship between family background and student educational attainment is well documented (Duncan & Murnane, 2011), less clear are the *mechanisms* through which parent social capital and other parent resources are related to four-year college enrollment (Ryan, 2016). Drawing on the scholarship of Schneider and Stevenson (1999), we propose the notion of *college-aligned actions* as one potential mechanism. College-aligned actions refer to a set of key steps that students must take during high school in order to align their college preparation with enrollment in a four-year college or university. Focusing specifically on the transition to four-year institutions, the study addresses the following research questions:

*Research Question 1:* To what extent are parent social capital and other parent resources indirectly associated with four-year college enrollment via college-aligned actions?

*Research Question 2:* To what extent do the associations among parent social capital, college-aligned actions, and college enrollment vary according to student immigrant generation status?

In the next section, we turn to the hypothesized associations among parent social capital and other parent resources, college-aligned actions, and four-year college enrollment. We also summarize findings from previous research addressing factors that influence four-year college enrollment among Hispanic youth, while acknowledging the need to better understand how these factors may vary in their importance depending on student immigrant generation. We then discuss the data and methods used in this research, followed by the study results. In the concluding sections, the findings are discussed along with suggestions for policy and practice.

## Literature Review

### Social Capital as an Overlooked Determinant of Variation in Status Attainment Across Hispanic Immigrant Generation

Using an asset-based approach to understanding Hispanic children's educational trajectories (Valencia & Black, 2002), numerous studies

document how Hispanic immigrant parents convey college aspirations in the narrative form of “consejos” (Auerbach, 2004; Delgado-Gaitan, 1994), leverage “funds of knowledge” and “community cultural wealth” to open up opportunities for college choice (Rios-Aguilar & Kiyama, 2012; Yosso, 2005), and weave a “culture of possibility” into the fabric of students’ college choice and access (Martinez, 2013). Yet Hispanic immigrant parents also face an extraordinary combination of challenges, including language barriers and anti-immigrant hostility, that tend to impinge on their success at facilitating the college choice and enrollment process on behalf of their children (Pérez & McDonough, 2008). Thus, in research on college choice among Hispanic students, results often vary within and across studies in ways that are not well understood (Desmond & Turley, 2009).

One recent study reports measurable differences in returns to parent education among Hispanic students of different immigrant generation status as these youth pursue four-year college enrollment (Alon et al., 2010). Another study unearths a rather surprising contradiction: Even non-immigrant Hispanic parents from materially advantaged backgrounds face greater difficulty, relative to parents from other racial/ethnic groups, in transmitting socioeconomic advantage to their offspring during postsecondary transitions (O’Connor et al., 2010). These findings are consistent with the assertion that differences in educational outcomes across immigrant generation may reflect how access to economic, social, and cultural resources is patterned according to immigrant generation and ethnicity (Baum & Flores, 2011). The persistence of group-level differences in status transmission across immigrant generations is perplexing to researchers and troubling to policymakers. How are we to make sense of these varied findings?

As one possible explanation, Tienda (2011) hypothesized that variation across Hispanic student immigrant generations in the transmission of status advantage from parents to children stems at least in part from differences in parents’ opportunities to acquire and use social capital. In this study, social capital is broadly defined as relationship networks from which an individual is potentially able to derive various types of resources and support via social exchange (Portes, 1998; Stanton-Salazar, 2001). Braiding together James Coleman’s (1988) functionalist interpretation of social capital and Pierre Bourdieu’s (1986) more critical sociological insights, Tienda posits that inequality in college enrollment is not only a product of material inequality but is also attributable to Hispanic parents’ membership in or exclusion from groups in which college-relevant information is accumulated and exchanged (Nuñez & Kim, 2012). From this perspective, variation in the social exchange of information is assumed to help perpetuate the vulnerable position of Hispanic youth, and especially immigrant Hispanic youth, when it comes to college preparation and enrollment (Ceja, 2006; Gándara & Contreras, 2009).

Parent-child relationships form the building blocks for social capital development within the family (Coleman, 1990), and researchers have

documented the educational advantages that accrue to parents' cognitively and emotionally supportive interactions with their own children (Hart & Risley, 1995). Prior research also demonstrates the benefits for children that arise through parents' informal ties with other parents (Carbonaro, 1998; Horvat, Weininger, & Lareau, 2003; Ream & Palardy, 2008) and their more formally organized relationships with school staff (Delgado-Gaitan, 1992; Lareau, 2011). Although not all of these studies are couched in the terminology of social capital, many parental involvement behaviors fit within a social capital framework precisely because parents' interactions with their children, other parents, and school personnel are all means by which parents bestow human capital (e.g., college information and know-how) upon their children (Perna & Titus, 2005). Thus, education researchers frequently draw on the notion of social capital as they seek to understand parent involvement in both informal and formal contexts (Dika & Singh, 2002; Ream, 2005).

It is widely reported that relationships within the family are particularly critical to Hispanic students' educational preparation and performance (Alvarez, 2010; Kao et al., 2013; Martinez, 2013; Ryan, 2016). While many youth often look to school personnel for information and guidance as they navigate college preparation and enrollment, and while their White and Black peers appear to benefit from seeking information online, Hispanic students also tend to rely more on face-to-face interactions with parents and other family members (Kao et al., 2013; Muñoz & Rincón, 2015; Stanton-Salazar, 2001; Tornatzky, Cutler, & Lee, 2002). For example, despite the growing amount of information about college that is now available to students and parents online (Deil-Amen & Rios-Aguilar, 2014), recent studies continue to demonstrate that in Hispanic households, the college-going process remains a largely interpersonal and mostly "offline" family affair (Martinez, 2013; Muñoz & Rincón, 2015).

Family support may occur through parents' direct intervention in their children's schooling (Delgado-Gaitan, 1992; Valencia & Black, 2002). In other cases, the support is of a more affective nature, realized via the moral imperatives that parents and other family members instill in the younger generation (Ream, 2005). Further, when parents' social networks extend beyond the family to include, for example, other parents or school personnel, they may gain access to critical information about how to facilitate successful educational outcomes among their children (Carbonaro, 1998; Horvat et al., 2003; Kao & Rutherford, 2007). As other researchers have demonstrated, Hispanic parents' information networks and the ability to connect students to resources, including college information and guidance, appear especially important with respect to preparing for and enrolling in college (Alvarez, 2010).

### *College-Aligned Actions as a Mediator of Parent Social Capital*

Studies that have focused on the positive effects of parent social capital on children's emotional well-being and success in school suggest that

Hispanic parents attempt to skillfully leverage their social networks to break down barriers to their children's schooling and postsecondary preparation (Pérez & McDonough, 2008). In other words, Hispanic parents may look to social ties for information and other resources they can use to promote engagement in college-aligned actions among their offspring (Ryan, 2016). High school students engage in college-aligned actions as they take certain practical steps during high school. For instance, students become academically prepared for college by enrolling in rigorous courses and maintaining good grades. Other key college-aligned actions include submitting college applications and completing national entrance exams (Berkner & Chavez, 1997; Klasik, 2012; Roderick, Coca, & Nagaoka, 2011; Ryan, 2016).

However, many Hispanic parents also report feeling limited in their capacity to become meaningfully involved in the schooling of their children (Portes & Rumbaut, 2006). Thus, some Hispanic parents may find it difficult to use their social capital resources to facilitate college-aligned actions among their children (Ryan, 2016). In particular, immigrant Hispanic students and parents often encounter an unfamiliar schooling system and find it difficult to engage with school personnel (Kao et al., 2013; Stanton-Salazar, 2001). Among immigrant parents, these barriers partly reflect economic pressures they face in the host country, which are compounded by language barriers and other marginalizing forces that reduce access to information about the workings of the U.S. school system (Baum & Flores, 2011; Valenzuela, 1999).

Given previous research on social capital and the potential for variability in the role of parent social capital within the population of Hispanic young people (Ream, 2005), we expect that the influence of parent social capital on student engagement in college-aligned actions may vary according to student immigrant generation. Immigrant parents often depend heavily on strong ties based in kinship, friendship, and neighborhood networks as they adapt to a new society (Menjívar, 2000; Zhou & Bankston, 1994). Therefore, strong ties with other parents may be a particularly important form of social capital for the immigrant parents of first- and second-generation Hispanic youth. Alternatively, parents of second- and third plus-generation students, who may have completed some or all of their schooling in the United States, may be better equipped to establish formal ties with school personnel and access school-based resources.

### **Factors Associated With Four-year College Enrollment Among Hispanic Students and the Potential for Variability Across Immigrant Generation Status**

A majority of research on students in higher education examines students of different racial/ethnic backgrounds (Rendón, Jalomo, & Nora, 2000). However, a critical quantitative perspective asserts that pan-ethnic classifications may not fully capture the experiences of specific groups

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(Stage, 2007), including students of different immigrant generations within racial/ethnic groups (Conway, 2014). When it comes to college enrollment, the educational experiences of immigrant students may overlap with those of the broader racial/ethnic group of which they are a part (Conway, 2014). On the other hand, students of different immigrant generations may face unique challenges as they attempt to access postsecondary education (Portes & Rumbaut, 2006). In the following section, we summarize factors shown in previous research to influence Hispanic four-year college enrollment. A critical quantitative perspective draws attention to the possibility that at least some of these factors may vary in their association with both college-aligned actions and four-year college enrollment across immigrant generation groups.

#### *Student and Family Background*

Transitions to college among Hispanic youth are related to a number of important student demographic characteristics. With regard to ethnicity and country of origin, scholars who have studied intra-ethnic differences within the Hispanic population according to national origin have generally concluded that Mexican American students face especially steep barriers when it comes to college enrollment and completion (Morgan & Gelbgiser, 2014). Gender may also factor in the college enrollment behaviors of Hispanic students. Numerous studies have encountered more successful postsecondary outcomes among Latinas relative to their male counterparts (Riegle-Crumb, 2010; Saenz & Ponjuan, 2009). Further, Hispanic students whose first language is not English may find it more challenging to access four-year institutions, at least in part due to inadequate academic preparation (Callahan & Humphries, 2016; Gándara & Contreras, 2009).

Parent resources including income and level of education are also widely recognized influences on Hispanic students' college enrollment (Kim & Díaz, 2013; Nora & Crisp, 2009; Nuñez & Kim, 2012; O'Connor et al., 2010; Perna & Titus, 2005). Indeed, a narrow perspective on the assets that Hispanic youth and families bring to the college choice process has led some researchers to conclude that Hispanic students are less likely to enroll in a four-year college because they tend to come from comparably poor and less well educated families (Kao et al., 2013). Yet recent research on *variation* in status attainment calls into question this one-size-fits-all perspective by showing that parent income and education tend to operate differently across racial/ethnic and immigrant generation groups in ways that serve to perpetuate group-level inequities in postsecondary enrollment and completion (Alon et al., 2010; O'Connor et al., 2010).

The region of the United States in which Hispanic families reside along with whether or not youth live in the same home with both biological parents are additional family characteristics demonstrated as important for



postsecondary outcomes among Hispanic youth (O'Connor et al., 2010). Finally, family knowledge and beliefs about college costs and financial aid may be particularly impactful among Hispanic youth (Perna & Titus, 2005). Hispanic families may find it more difficult to access accurate information about the costs and benefits of college, tend to prefer face-to-face support over online social media in the search for financial aid, and may be more reluctant to take out loans to pay for college (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012).

### *College-Going Dispositions*

Hispanic parents' and students' college-going expectations are also related to four-year college enrollment, and high educational expectations are key to immigrant adolescents' educational success (Kao & Tienda, 1998). Moreover, sustained plans for educational attainment appear to be especially predictive of college enrollment, perhaps due to an increased likelihood that youth will align their college preparation with their educational goals (Bozick, Alexander, Entwistle, Dauber, & Kerr, 2010; Klasik, 2012). These college-going dispositions are related to aspects of the high school context (Nuñez & Kim, 2012). The type of high school a student attends (e.g., public, Catholic/private) and the college-going climate of the school may be especially important among Hispanic youth (Gándara et al., 2013).

Finally, as many Hispanic students prepare for college, they may prioritize attending an institution closer to their families, not only to save money and help with family needs but also because Hispanic students are especially likely to view family as a key source of encouragement and support during their college years (Kim & Díaz, 2013; Nora & Crisp, 2010; Tornatzky et al., 2002). The desire to remain near home, however, may reduce the likelihood that Hispanic youth will enroll in a four-year institution (Desmond & Turley, 2009).

## Method

### Data Source

This research used data from the Education Longitudinal Study of 2002 (ELS:2002), which was collected by the National Center for Education Statistics (NCES). The ELS data set (see <http://nces.ed.gov/surveys/els2002/>) includes a nationally representative cohort of 10th graders in 2002 and involves multiple respondent populations, including students, parents, teachers, and administrators. Student data from three time points were included: the 2002 10th-grade interview, the 2004 12th-grade interview, and the 2006 interview, when students were two years out of high school. Data from parents, who were interviewed once in 2002, were also used. The ELS first and second follow-up panel weight (F2F1WT) and Grade 10 cohort (G10COHRT) flag

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were used to select the sample of 10th graders in 2002 also present for the second (2004) and third (2006) waves of data collection ( $n = 13,220$ ). Of the 13,220 students who participated in all three waves of data collection, this study focuses on the 1,880 students who reported Hispanic ethnicity. In accordance with NCES guidelines, all sample sizes were rounded to the nearest 10.

To facilitate comparative analyses across immigrant generations of Hispanic adolescents, we used the BYGNSTAT composite to divide our sample of Hispanic students ( $n = 1,880$ ) into three distinct immigrant generation status groups. This composite variable was constructed by NCES from the ELS parent questionnaire items reflecting the birth place of the student and his or her parent. The first generation ( $n = 420$ ) includes foreign-born students of foreign-born parents, while the second generation ( $n = 650$ ) includes native-born students with at least one foreign-born parent. The third-plus generation ( $n = 810$ ) captures students born in the United States to parents who were also born in the United States; thus, this group includes the third and later (“third-plus”) generations.

### *Missing Data*

Three cases were missing information on the outcome measure and were discarded. Missingness on other observed variables ranged from 0% to 24%. Since ignoring the substantial portion of cases with missing values would likely have resulted in biased estimates of the population, we used multiple imputation to impute missing values on all variables with missing data. The imputation model included all analysis variables except the outcome (see Table 1) and was carried out using Bayesian estimation of an unrestricted model, where the multiple imputations were random draws from the posterior distribution of missing values (Rubin, 1987). Model parameters and fit statistics were averaged over 20 imputed data sets (see Asparouhov & Muthén, 2010). Standard errors were computed using the Rubin (1987) method.

### **Measures**

#### *Dependent Variable*

The key outcome of interest in this investigation was whether a student first enrolled in a four-year college as opposed to a one- or two-year institution or no postsecondary school. The outcome measure, which was collected in 2006, was recoded from what was initially a five-level variable in ELS to reflect whether a student never enrolled or enrolled in a one- or two-year institution (coded as 0) or enrolled in a four-year institution (coded as 1). The focus on level of first enrollment helps to distinguish enrollment from persistence.

*Table 1*  
**Descriptive Statistics on Primary Study Measures Among First-, Second- and Third Plus-Generation Students**

Variables	First <i>M (SD)</i>	Second <i>M (SD)</i>	Third-Plus <i>M (SD)</i>	Range
<b>Parent social capital</b>				
College-relevant school social capital				
How often parent contacts school about . . .				
academic program	1.31 (.59)	2.36 (.63)	2.52 (.74)	1 (never), 4 (5+ times) <sup>a</sup>
course selection	1.18 (.51)	1.24 (.54)	1.32 (.56)	1 (never), 4 (5+ times)
plans after high school	1.18 (.52)	1.22 (.53)	1.28 (.56)	1 (never), 4 (5+ times)
College-relevant family social capital				
How often parent provides advice about . . .				
course selection	2.28 (.72)	2.31 (.71)	2.43 (.65)	1 (never), 3 (often) <sup>b</sup>
taking college entrance exams	1.92 (.79)	2.06 (.81)	2.10 (.77)	1 (never), 3 (often)
applying to college	1.99 (.82)	2.09 (.83)	2.16 (.79)	1 (never), 3 (often)
Intergenerational closure				
Knows mother of child's closest friend	.74 (.45)	.77 (.41)	.80 (.40)	0 (no), 1 (yes)
Knows father of child's closest friend	.57 (.50)	.61 (.49)	.60 (.49)	0 (no), 1 (yes)
How often parent of child's friend . . .				
gives advice about teachers/courses	1.21 (.56)	1.30 (.66)	1.40 (.74)	1 (never), 4 (5+ times) <sup>a</sup>
provides a favor to parent	1.77 (1.06)	1.99 (1.13)	2.26 (1.12)	1 (never), 4 (5+ times)
receives a favor from parent	1.81 (1.05)	1.89 (1.13)	2.12 (1.13)	1 (never), 4 (5+ times)
<b>Other parent resources</b>				
Income	7.35 (2.43)	7.91 (2.42)	8.72 (2.38)	1 (no income), 13 (\$200,000+) <sup>c</sup>
Bachelor's or advanced degree	.23 (.40)	.22 (.44)	.30 (.46)	0 (no college), 1 (≥ 4-year degree)
<b>College-aligned actions</b>				
High school GPA	3.35 (1.53)	3.37 (1.57)	3.42 (1.53)	0 (0.00–1.00), 6 (3.51–4.00) <sup>d</sup>
Highest math course completed	.95 (.82)	1.03 (.83)	1.03 (.81)	0 (< Alg II), 1 (Alg II), 2 (> Alg II)
Has taken a college entrance exam	.47 (.50)	.51 (.50)	.55 (.50)	0 (no), 1 (yes)
Number of four-year institutions applied to	.86 (1.12)	1.07 (1.20)	1.05 (1.20)	0 (none), 1 (one), 2 (two), 3 (>two)

*(continued)*

Table 1 (continued)

Variables	First <i>M (SD)</i>	Second <i>M (SD)</i>	Third-Plus <i>M (SD)</i>	Range
<b>College enrollment</b>				
Level of initial enrollment	.23 (.42)	.30 (.46)	.30 (.46)	0 (other), 1 (4-year institution)
<b>Student and family background</b>				
Mexican origin	.59 (.49)	.57 (.50)	.66 (.48)	0 (no), 1 (yes)
Puerto Rican origin	.08 (.28)	.11 (.32)	.14 (.35)	0 (no), 1 (yes)
Other Hispanic origin	.33 (.46)	.32 (.42)	.22 (.17)	0 (no), 1 (yes)
Gender	.56 (.50)	.51 (.50)	.51 (.50)	0 (male), 1 (female)
Native English speaker	.10 (.30)	.34 (.48)	.83 (.37)	0 (no), 1 (yes)
Applied financial aid	.56 (.50)	.63 (.48)	.64 (.48)	0 (no), 1 (yes)
Family composition	.43 (.50)	.37 (.48)	.48 (.50)	0 (both parents), 1 (other)
Region	.38 (.49)	.43 (.50)	.40 (.49)	0 (other), 1 (West)
Test scores	43.88 (9.70)	46.15 (9.31)	47.86 (9.49)	20.91–81.04
Ever dropped out	.12 (.33)	.11 (.30)	.11 (.30)	0 (no), 1 (yes)
<b>College-going dispositions</b>				
Consistent expectations	.43 (.49)	.44 (.50)	.44 (.50)	0 (no), 1 (yes)
Parent expectations	.43 (.49)	.48 (.50)	.42 (.50)	0 (< advanced), 1 (advanced degree)
Live at home important (student)	.81 (.39)	.74 (.44)	.63 (.48)	0 (no), 1 (yes)
High school type	.08 (.26)	.14 (.35)	.19 (.39)	0 (public), 1 (private)
High school four-year college-going rate	3.95 (1.10)	4.11 (1.17)	4.25 (1.24)	0 (none), 6 (75–100%) <sup>e</sup>

Note. First-generation  $n = 420$ ; second-generation  $n = 650$ ; third plus-generation  $n = 810$ . Alg = Algebra.

<sup>a</sup>1 = never, 2 = 1–2 times, 3 = 3–4 times, 4 = 5 or more times (since the beginning of the school year).

<sup>b</sup>1 = never, 2 = sometimes, 3 = often.

<sup>c</sup>1 = no income, 2 = ≤\$1,000, 3 = \$1,001–\$5,000, 4 = \$5,001–\$10,000, 5 = \$10,001–\$15,000, 6 = \$15,001–\$20,000, 7 = \$20,001–\$25,000, 8 = \$25,001–\$35,000, 9 = \$35,001–\$50,000, 10 = \$50,001–\$75,000, 11 = \$75,001–\$100,000, 12 = \$100,001–\$200,000, 13 = ≥\$200,001.

<sup>d</sup>0 = 0.00–1.00, 1 = 1.01–1.50, 2 = 1.51–2.00, 3 = 2.01–2.50, 4 = 2.51–3.00, 5 = 3.01–3.50, 6 = 3.51–4.00.

<sup>e</sup>1 = none, 2 = 1%–10%, 3 = 11%–24%, 4 = 25%–49%, 5 = 50%–74%, 6 = 75%–100%.

*Parent Social Capital*

We selected a subset of items from the ELS parent survey, administered in 2002, to measure three latent constructs that tap parents' access to college-relevant information and support via interaction with school personnel (taking such involvement as a proxy measure of social capital) and via relationships with their children and with the parents of their children's friends. In this way, we were able to measure social capital across domains within and beyond the family, accounting for quantity (i.e., the existence of a relationship amenable to external verification) and quality (i.e., the nature of that relationship). These measures are similar in construction to social capital measures shown to be associated with college enrollment among Hispanic youth in prior research (Kao & Rutherford, 2007; Nuñez & Kim, 2012; Perna & Titus, 2005; Ryan, 2016). The measures also demonstrate high internal consistency based on Raykov's (2001) reliability coefficient  $\rho$ , which has been recommended for use in confirmatory factor analyses (CFA), particularly when factor indicators are categorical (Brown, 2006). The three latent constructs representing various forms of college-relevant parent social capital include:

- College-Relevant School Social Capital (SSC;  $\rho = .85$ ): a three-item construct including the frequency with which the parent contacted the school during the prior year about the student's course selection, academic program, and post-high school plans.
- College-Relevant Family Social Capital (FSC;  $\rho = .81$ ): a three-item construct including the frequency with which the parent provided the student with advice during the prior year about selecting high school courses, taking entrance exams, and applying to college.
- Intergenerational Closure ( $\rho = .87$ ): a five-item construct including whether the parent reported knowing the mother and/or the father of the student's closest friend, the number of times a parent of one of the student's friends gave the parent advice about the school's courses or teachers, how often the parent received a favor from the student's friend's parent, and how often the parent provided a favor to the student's friend's parent.

CFA was used to analyze the measurement model specifying the associations between latent constructs and their corresponding observed indicators. All models were assessed for fit according to the chi-square statistic, the Comparative Fit Index (CFI), and the root mean square error of approximation (RMSEA). While small misspecifications in a model often lead to inflation of the chi-square statistic with large sample sizes (Curran, West, & Finch, 1996), the CFI accounts for sample size, with a value above .90 indicating a good fit between the model and the data. The suggested upper-limit cutoff for the RMSEA is .06 (Hu & Bentler, 1999). Fit statistics were assessed for all three generation groups, and convergent validity was evaluated

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through the examination of standardized factor loadings (Reis & Judd, 2014). Fit statistics indicated a good fit between the measurement model and the data for each group.

In addition to these forms of parent social capital, the models also include family income, as represented by an indicator of parents' combined income from all sources in 2001, and parent education, as represented by an indicator of whether either parent completed a bachelor's (or advanced) degree. The income measure, taken during base-year data collection, was rescaled by NCES as a 13-level continuous variable prior to data release (0 = no income, 13 = \$200,000 or more). While information about wealth may provide a more complete profile of the family financial situation, the ELS parent questionnaire did not collect this information.

### *College-Aligned Actions*

We expect that the extent to which a student engages in key college-going actions during high school will share a strong relationship with his or her probability of enrolling in a four-year institution. The latent college-aligned actions construct captures the shared variation among indicators of these actions. A student's level on the aligned actions construct reflects the extent to which he or she engaged in actions during high school that align with preparation for entry into a four-year college. Previous research documenting the series of key steps typically required to achieve four-year college enrollment (Berkner & Chavez, 1997; Klasik, 2012; Roderick et al., 2011; Schneider & Stevenson, 1999) informed the selection of indicators for this construct. The aligned-actions construct is measured using indicators of academic preparation, as measured by cumulative high school grade point average (GPA) and highest math course completed, completion of college entrance exams, and application to one or more four-year colleges. The data used to create the college-aligned actions construct were based on student reports during the second wave of data collection in 2004; postsecondary application was verified in the Integrated Postsecondary Education Data System (IPEDS). The reliability ( $\rho$ ) for this construct was .84.

### *Student and Family Background and College-Going Dispositions*

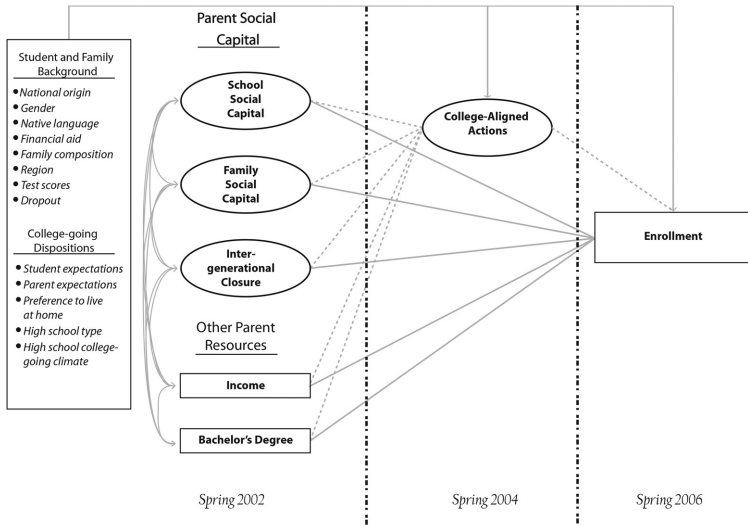
We also account for a variety of other factors associated with four-year college enrollment among Hispanic youth. The largest Hispanic national origin groups in the ELS data include Mexican (61%) and Puerto Rican (12%) students, thus we included two binary indicators of whether a student reported Mexican or Puerto Rican origin. Student gender (female = 1) and whether the student reported English as their first language (native English speaker = 1) were also included. Other background factors included financial aid application (applied = 1), family structure (did not live with both biological parents = 1), and region of residence (West = 1).

A dummy variable indicates whether a student expected to complete a bachelor's degree in both the 10th and 12th grades (consistent expectations = 1). There was little variability in parents' bachelor's degree expectations (90% of parents), leading us to include an indicator of parents' professional or advanced degree expectations (advanced degree expectations = 1). We also included indicators of the importance students placed on living at home during college (very important = 1), school type (Catholic or other private = 1), and the high school college-going climate (percentage of students in the previous graduating class that enrolled in a four-year institution). Finally, the ELS base-year standardized test score composite was included to control for prior achievement differences, while dropout status (dropout = 1) was included given that students who drop out of high school are unlikely to prepare for or enroll in a four-year college.

### Conceptual Framework and Analytic Strategy

The conceptual model that serves as the organizing framework for this study is depicted in Figure 1. Although the framework also accounts for student and family background characteristics as well as college-going dispositions, our primary focus is the influence of parent social capital on student college enrollment via college-aligned actions across first-, second-, and third plus-generation Hispanic youth. Because forms of social capital work in tandem with parents' economic and human capital, we model all of these parent resources as interrelated, per Figure 1. We use multiple group structural equation modeling (SEM) techniques to examine these relationships (Mplus statistical software, Version 7.0). The framework includes measurement and structural components that SEM combines into a single model, allowing us to simultaneously test associations among the variables and constructs of interest in the time-sequenced process outlined in Figure 1. Importantly, our use of multiple group SEM also allows us to test, from a critical quantitative perspective (Stage, 2007), whether and how the process represented in Figure 1 differs across the three immigrant generation groups. Analyses were based on raw ELS data, which are publicly available from the National Center for Education Statistics. To assess multicollinearity, we considered bivariate correlations, variance inflation factors and condition indices. No evidence of multicollinearity was detected.

In order to examine whether various forms of parent social capital are related to children's four-year college enrollment through an association with students' college-aligned actions, we followed the process outlined by Baron and Kenny (1986) and others (Mackinnon, Lockwood, Hoffman, West, & Sheets, 2002). Specifically, we used the Mplus "MODEL CONSTRAINT" command to obtain three types of mediation output reflecting the three conditions necessary for mediation: (1) total effects, or the relationship between parents' social capital and other resources and four-year



**Figure 1. Conceptual framework depicting the hypothesized model.**

Note. While background covariates are employed in the estimation of the full model, for ease of readability, these associations are not depicted in the conceptual framework. In the conceptual framework, ellipses depict latent measures while rectangles represent observed measures. Dashed lines indicate indirect effects between parent resources and college enrollment via college-aligned actions. A baseline model (the configural invariance model) established the same pattern of fixed and free factor loadings across the three immigrant generation groups, and invariance testing procedures were used to evaluate the extent to which structural coefficients varied across the three groups.

college enrollment prior to accounting for the hypothesized college-aligned actions mediator; (2) indirect effects, or the extent to which parent social capital and other parent resources are associated with four-year college enrollment through an association with college-aligned actions; and (3) direct effects, or the relationship between parents' social capital and other resources and four-year college enrollment after accounting for college-aligned actions. Standard errors for indirect effects were estimated using the delta method, and any remaining bias in standard errors was corrected using the bootstrap procedure.

Group-level differences in the statistical significance of parameter estimates do not necessarily mean that there are measurable differences in the *magnitudes* of parameter estimates across groups. Thus, model difference testing was conducted in order to statistically evaluate whether the



magnitude of the associations between parents' social and other resources, aligned actions, and college enrollment differed in strength across immigrant generations.

The robust weighted least squares (WLSMV) estimator was used to estimate the models described here (model equations available on request). The WLSMV estimator is most appropriate given that most observed variables used in this research, including the outcome, are categorical in nature. This estimator uses the probit link and provides standard errors and a chi-square test statistic that are robust to non-normality, particularly with sample sizes of 300 or greater (Moshagen & Musch, 2014; Muthén & Muthén, 2015). Given that sample students are nested in schools, violating the assumption of independence, we used the analysis setting TYPE=COMPLEX in Mplus. This setting uses the ELS stratum (STRAT\_ID) and cluster (PSU) identifiers to adjust standard errors to account for nonindependence of observations, sample stratification, and disproportionate selection probability (Muthén & Muthén, 2015).

## Results

### Descriptive Results

#### *The Distribution of Parent Social Capital and Other Resources*

Our descriptive results (Table 1) show a consistent pattern whereby third plus-generation youth, relative to second-generation and particularly first-generation youth, appear to have greater access to the specific forms of parent social capital measured in this study. These results suggest that parents of third plus-generation youth, for example, more often contacted the school about academic programs, were more familiar with their children's friends' parents, and provided advice about applying to college more often than parents of first- and second-generation youth. Although parents' economic resources increased somewhat across the generation groups, combined family income was still below \$50,000 among third plus-generation youth. Among parents of first- and second-generation students, 23% and 22%, respectively, had completed a bachelor's or advanced degree, while 30% of parents of the third-plus generation had done so.

#### *College-Aligned Actions*

A smaller proportion of first-generation youth engaged in behaviors reflective of college-aligned actions relative to second- and third plus-generation youth. On average, students in the former group had a cumulative high school GPA between 2.0 and 2.5 and had not completed Algebra II or applied to any four-year college, while less than half had taken either the SAT or ACT college entrance examination. On average, second- and third

### *College Enrollment Across Hispanic Immigrant Generation Status*

plus-generation students had completed Algebra II and had applied to at least one four-year institution by the end of high school; 51% and 55%, respectively, had taken a college entrance exam. Twenty-three percent of first-generation Hispanic youth began college at a four-year institution while 30% of both their second- and third plus-generation peers did so.

### *Student and Family Background*

Across immigrant generation status, approximately two-thirds of Hispanic students were of Mexican origin, followed by students of Puerto Rican origin. Regarding gender, across generation status groups, females comprised just over 50% of the sample. The proportion of students reporting English as a native language rose with each generation, ranging from 10% in the first generation to 83% in the third-plus generation. Across the three immigrant generation groups, more than half of students had applied for financial aid. Finally, relative to the other two groups, a greater share of second-generation students lived in the same home with both biological parents (63%) and in a Western state (43%).

### *College-Going Dispositions*

In each immigrant generation group, fewer than half of students consistently expected to complete a bachelor's or advanced degree. Similarly, across the three groups, fewer than half of parents expected their child to complete an advanced degree. Test scores were slightly below the national mean of 50 across generation status groups, while just over 10% of students from each group had dropped out of high school. The first generation included the greatest share of students reporting that it was very important to live at home while attending college. The proportion of Hispanic youth attending a Catholic or private high school ranged from 8% of the first generation to 19% of the third-plus generation. The four-year college-going rate was lowest in high schools attended by first-generation Hispanic students.

## **SEM Results**

### *Associations Among Parent Resources, College-Aligned Actions, and Four-Year Enrollment*

The model depicted in Figure 1 was first estimated before introducing other background factors expected to be associated with Hispanic students' postsecondary transitions. Fit statistics and results from this model, which fit the data well, are provided in Table 2. The results suggest a positive and statistically significant association between family social capital and enrollment via college-aligned actions among both first- and third plus-generation students, although total effects (indirect plus direct effects) did not reach statistical significance. Intergenerational closure shared a positive relationship with enrollment, either

directly or indirectly via aligned actions, across generation groups, and total effects were statistically significant for both first- and third plus-generation youth. The relationship between school social capital and enrollment, including via college-aligned actions, did not reach significance in any of the three groups, however. The positive association between family income and enrollment reached significance only among second- and third plus-generation students and traveled primarily via college-aligned actions. Finally, having a parent with a bachelor's or advanced degree was positively and significantly associated with four-year college enrollment regardless of generation status, again largely through an influence on college-aligned actions.

After accounting for the strong positive relationship between parent resources and four-year enrollment via college-aligned actions, none of the direct associations between parent resources and four-year enrollment were statistically significant, with the exception of intergenerational closure among the first generation. Taken together, the results suggest some relationship between intergenerational closure and four-year college enrollment among all three immigrant generation groups. The results also suggest that aligned actions may mediate the positive and significant relationship between parent income and four-year college enrollment among second- and third plus-generation youth and between parent education and enrollment in all three groups. Next, we explore whether these associations persist after accounting for other factors associated with four-year college enrollment among Hispanic youth.

#### *Associations Among Parent Resources, College-Aligned Actions, and Four-Year Enrollment After Accounting for Other Background Characteristics*

We begin with three general observations derived from the results of the full model in Table 3. First, a significant positive association emerged between our proxy measure of parent social capital in the formal school setting and four-year enrollment, partly via college-aligned actions, uniquely among the third-plus generation. This significant indirect association appeared only after accounting for factors known to be linked with four-year college transitions among Hispanic youth. Second, a positive and significant association remained, even after accounting for background factors, between intergenerational closure and four-year enrollment only in the first generation. Thus, there is evidence of measurable variation in the educational utility of different forms of parent social capital across immigrant generations. Last, even after accounting for various student, family, and contextual factors, associations between college-aligned actions and four-year enrollment remained similar in size and strength across all three generation groups.

With various background controls in place, the measure of college-relevant school social capital was significantly associated with enrollment via college-aligned actions only among third plus-generation Hispanic

*Table 2*  
**Associations Between Parent Social Capital and Other Parent Resources, College-Aligned Actions, and Four-Year College Enrollment Among First-, Second-, and Third Plus-Generation Students, Prior to Including Background Characteristics**

Variables/Constructs	Via Aligned Actions (Indirect)				College Enrollment (Direct)				College Enrollment (Total)			
	First	Second	Third+	Third+	First	Second	Third+	Third+	First	Second	Third+	Third+
<b>Parent social capital</b>												
College-relevant SSC	-.05 (.12)	.02 (.09)	.00 (.07)		-.10 (.13)	-.02 (.10)	.05 (.09)		-.15 (.15)	-.01 (.11)		.06 (.09)
College-relevant FSC	.27** (.10)	.04 (.08)	.16* (.07)		-.10 (.11)	.05 (.09)	-.07 (.08)		.17 (.13)	.08 (.10)		.09 (.09)
Intergenerational closure	.10 (.08)	.15* (.07)	.14* (.06)		.21* (.11)	-.08 (.08)	.06 (.07)		.32** (.11)	.07 (.09)		.19* (.08)
<b>Other parent resources</b>												
Income	.04 (.03)	.07** (.02)	.06** (.02)		-.01 (.04)	-.01 (.03)	.04 (.03)		.03 (.04)	.07* (.03)		.09** (.03)
Education: BA or above	.53*** (.17)	.40* (.20)	.39*** (.12)		.18 (.23)	.13 (.16)	.05 (.16)		.71** (.23)	.53** (.21)		.45** (.17)
<b>College-aligned actions</b>												
Fit statistics					1.17*** (.12)	1.14*** (.07)	1.01*** (.06)		1.17*** (.12)	1.14*** (.07)		1.01*** (.06)
$\chi^2$ (127 <i>df</i> )	149.93	182.36	212.94									
CFI	.99	.99	.98									
RMSEA	.02	.03	.03									
$R^2$	.83	.90	.78									

*Note.* First-generation  $n = 420$ ; second-generation  $n = 650$ ; third plus-generation  $n = 810$ ; SSC = school social capital; FSC = family social capital; CFI = Comparative Fit Index; RMSEA = root mean square error of approximation.  
 \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

Table 3

### Associations Between Parent Social Capital and Other Parent Resources, College-Aligned Actions, and Four-Year College Enrollment Among First-, Second- and Third Plus-Generation Students, Accounting for Background Characteristics

Variables/Constructs	Via Aligned Actions (Indirect)				College Enrollment (Direct)				College Enrollment (Total)			
	First	Second	Third+	Third+	First	Second	Third+	Third+	First	Second	Third+	
<b>Parent social capital</b>												
College-relevant SSC	.07 (.08)	.09 (.09)	.15* (.07)	-.07 (.13)	-.06 (.15)	.16 (.12)	.00 (.13)	.31** (.12)	.03 (.16)			
College-relevant FSC	.15 (.08)	-.01 (.09)	-.05 (.06)	-.07 (.15)	.08 (.12)	-.09 (.10)	.08 (.14)	-.14 (.11)	.07 (.12)			
Intergenerational closure	.04 (.07)	.03 (.08)	-.02 (.06)	.21* (.10)	-.08 (.10)	.10 (.09)	.24* (.11)	.08 (.11)	-.05 (.10)			
<b>Other parent resources</b>												
Income	.03 (.03)	.02 (.02)	.01 (.02)	-.03 (.05)	-.03 (.04)	.04 (.04)	.00 (.06)	.05 (.04)	-.01 (.04)			
Education: BA or above	.11 (.16)	.03 (.17)	.12 (.10)	.15 (.26)	-.10 (.23)	-.24 (.18)	.26 (.26)	-.12 (.19)	-.08 (.25)			
<b>College-aligned actions</b>												
Student and family background												
Mexican origin	-.04 (.16)	.05 (.17)	-.19 (.12)	-.30 (.26)	-.42* (.20)	-.10 (.18)	-.33 (.27)	-.29 (.20)	-.37 (.25)			
Puerto Rican origin	-.34 (.25)	.24 (.21)	-.31* (.15)	.06 (.36)	-.58* (.28)	.03 (.26)	-.35 (.34)	-.28 (.26)	-.33 (.28)			
Gender	.25* (.12)	.33** (.13)	.27*** (.08)	-.16 (.25)	-.41* (.19)	-.07 (.15)	.09 (.26)	.20 (.15)	-.08 (.19)			
Native English speaker	.12 (.21)	-.07 (.14)	.04 (.12)	.23 (.33)	.02 (.20)	-.11 (.21)	.28 (.36)	-.07 (.19)	-.05 (.19)			
Applied financial aid	—	—	—	1.01*** (.26)	.92*** (.21)	.53** (.19)	1.01*** (.26)	.53** (.19)	.92*** (.21)			
Family composition	-.17 (.13)	-.21 (.13)	-.14 (.08)	-.14 (.20)	-.07 (.21)	.05 (.14)	-.30 (.21)	-.09 (.15)	-.28 (.21)			
Region	-.16 (.18)	-.41** (.17)	-.18 (.11)	-.52 (.31)	-.11 (.20)	-.11 (.18)	-.68* (.31)	-.28 (.17)	-.52** (.19)			
Test scores	.31*** (.07)	.65*** (.12)	.38*** (.07)	.00 (.14)	-.15 (.15)	-.04 (.11)	.31* (.13)	.34*** (.10)	.49*** (.12)			
Ever dropped out	-.55** (.20)	-.1.03*** (.26)	-.97*** (.15)	—	—	—	-.50** (.17)	-.97*** (.15)	-.1.03*** (.26)			
<b>College-going dispositions</b>												
Consistent expectations	.63*** (.18)	.99*** (.19)	.83*** (.12)	.39 (.31)	-.18 (.24)	-.22 (.18)	.99*** (.28)	.61*** (.16)	.82*** (.19)			
Parent expectations	.13 (.11)	.08 (.13)	-.01 (.10)	-.20 (.22)	-.15 (.19)	.29* (.14)	-.07 (.23)	.28* (.14)	-.08 (.19)			
Live at home important	-.34 (.20)	-.63*** (.17)	-.33*** (.10)	-.35 (.32)	.04 (.19)	-.26 (.15)	-.69* (.30)	-.58*** (.16)	-.59** (.19)			
High school type	.68** (.27)	.60* (.25)	.25 (.14)	-.57 (.45)	-.35 (.29)	-.16 (.18)	.10 (.41)	.09 (.21)	.25 (.29)			
High school four-year college-going rate	.07 (.08)	-.02 (.08)	.02 (.05)	.04 (.13)	.09 (.10)	.14 (.08)	.11 (.14)	.16* (.08)	.07 (.10)			
<b>Fit statistics</b>												
$\chi^2$ (314 df)	389.49	466.49	487.04									
CFI	.95	.94	.94									
RMSEA	.02	.03	.03									
$R^2$	.85	.95	.80									

Note: First-generation  $n = 420$ ; second-generation  $n = 650$ ; third plus-generation  $n = 810$ ; SSC = school social capital; FSC = family social capital; CFI = Comparative Fit Index, RMSEA = root mean square error of approximation. The direct effect between dropping out and college enrollment was constrained at zero, as was the indirect effect of applying for financial aid on college-aligned actions.

\* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

youth, per the output in the initial column in Table 3. Moreover, the *magnitude* of the indirect association between parent school social capital and enrollment via college-aligned actions was significantly larger for the third-plus generation compared to the other two immigrant generation groups ( $p \leq .05$  in both cases). In contrast to the results in the partial models in Table 2, none of the links between family social capital and enrollment via college-aligned actions was significant. The positive indirect associations between intergenerational closure and enrollment also disappeared in the full model (Table 3). Similarly, the positive and significant associations that both parent income and education shared with enrollment via college-aligned actions in the previous model (Table 2) faded in the full model.

Considering four-year college enrollment, the association between college-relevant school social capital and student enrollment in a four-year college for the third-plus generation was positive and statistically significant, and this significant total association was partially mediated by college-aligned actions. The total association between the latent measure of intergenerational closure and four-year enrollment was also positive and significant uniquely among first-generation Hispanic youth. In both cases, the magnitude of the total association was measurably different across generation groups at the  $p \leq .10$  level—between the third-plus and first generation for school social capital and between the first and second generation for intergenerational closure. Once again, the positive and significant relationships that parent income and parent education previously shared with four-year college enrollment faded to nonsignificance in the full model.

To quantify the magnitude of these differences in more meaningful terms, we converted model probit coefficients into predicted probabilities of four-year enrollment given a standardized change in all three forms of parent social capital as well as parent income and education (Table 4). The baseline probabilities assume a sample average student living with both parents, who together held average stocks of all resources. Controlling for a host of background factors, it was uniquely among third plus-generation youth that a standardized unit increase in parents' school social capital predicted a 7 percentage point increase, from 16% to 23%, in the probability of four-year enrollment. Only among first-generation youth, however, was there an increase (6 percentage points) in the probability of four-year enrollment given a standard deviation increase in intergenerational closure. These findings serve as a reminder that variation in the educational utility of parent social capital across Hispanic immigrant generation groups depends on the outcome of interest and which of the many forms of social capital are in question.

It is also notable that even after accounting for the various background factors in Table 3, the associations between student engagement in college-aligned actions and enrollment in a four-year institution remained strong and statistically significant across all three immigrant generation groups. A

Table 4  
**Predicted Probabilities of Four-Year College  
 Enrollment Among First-, Second- and Third Plus-Generation Students**

Variables/Constructs	First <i>p</i>	Second <i>p</i>	Third+ <i>p</i>
Baseline (average student)	.14	.12	.16
<b>Parent social capital</b>			
College-relevant SSC + 1 <i>SD</i>	.15	.12	<b>.23</b>
College-relevant FSC + 1 <i>SD</i>	.16	.13	.13
Intergenerational closure + 1 <i>SD</i>	<b>.20</b>	.11	.18
<b>Other parent resources</b>			
Parent income + 1 <i>SD</i>	.14	.10	.18
Parent with BA or above	.21	.09	.13
College-aligned actions + 1 <i>SD</i>	<b>.50</b>	<b>.62</b>	<b>.54</b>

*Note.* First-generation  $n = 420$ ; second-generation  $n = 650$ ; third plus-generation  $n = 810$ . Predicted probabilities reflect the average student in each generation group. A native Spanish speaker, this student attended a public high school, had generation-group mean standardized test scores, and did not have consistent BA expectations. He or she lived in a region of the United States other than the West, demonstrated the average level of aligned actions for his or her generation status, applied for financial aid, and reported that it was very important to live at home while attending college. Although the average third plus-generation student spoke English as his or her native language, the baseline probability was estimated for a native Spanish speaker to maintain consistency. Changes in probability that are significant ( $p \leq .05$ ) relative to the baseline are noted in bold text. SSC = school social capital; FSC = family social capital.

standard deviation increase in the level of college-aligned actions was associated with a 36 percentage point increase in the probability of enrolling in a four-year college among first-generation Hispanic students; third plus-generation students experienced a similar increase (38 percentage points; see Table 4). The increase in the probability of four-year enrollment among second-generation students was larger, although there were no detectable group-level differences in the magnitude of the association between college-aligned actions and four-year enrollment.

Many student and family characteristics were also associated with four-year enrollment, and several of the associations traveled through student engagement in college-aligned actions. For example, maintaining consistently high expectations over time and higher prior achievement were both positively related to enrollment in a four-year institution, largely by promoting students' college-aligned behaviors (Table 3). Latinas in all three generation status groups had a greater probability of becoming college-aligned but not necessarily of enrolling in a four-year institution. Similarly, across immigrant generations, attending a Catholic or other private high school was strongly predictive of student engagement in college-aligned actions

but was not associated with a greater probability of enrolling at the four-year level. Unsurprisingly, dropping out of high school negatively predicted college-aligned actions and thus four-year college enrollment across all three generation groups. The importance placed on living at home while attending college was also negatively associated with enrolling at the four-year level and with engaging in college-aligned actions during high school. Finally, students who applied for financial aid had a greater probability of enrolling in a four-year college or university.

### **Limitations and Directions for Future Research**

This study offers a needed contribution to knowledge about college access among Hispanic youth according to immigrant generation status. Nonetheless, this research is not without limitations. One challenge is that social capital is a multidimensional construct that takes numerous forms depending on factors such as the domain in which interpersonal resource exchange occurs and the outcome of interest (Ream, 2003). We have attempted to achieve greater domain specificity by focusing on the potential for parents' relationships to affect students' four-year college enrollment. Still, we do not intend or claim to account for all of the ways in which Hispanic parents and students build, access, and use social capital. Such an analysis would extend beyond both the scope of this study and what was measured in the ELS.

We are also careful to note that the ELS, collected beginning in 2002, does not include information about who students and parents access information from online related to navigating postsecondary transitions. In recent years, a great deal of official information about college preparation and enrollment has become available, if not easily navigated, online. The availability of new data is spurring research addressing what some have referred to as "online social capital" (Deil-Amen & Rios-Aguilar, 2014), yet relatively little of this work has investigated the role of access to resources via online relationships in postsecondary transitions (Wohn, Ellison, Kahn, Fewins-Bliss, & Gray, 2013). One recent exception indicates that Hispanic students have not responded as positively to online information about college as their peers from other racial/ethnic groups (Muñoz & Rincón, 2015). Thus, one critical but often overlooked research consideration is whether and how the educational importance of online interactions and resources vary by race/ethnicity or within groups according to generation status. Future research with more recent data should continue to probe this topic, particularly given that many Hispanic families face inequitable access to technology, including home-based Internet (Lee & Barron, 2015).

In addition, we remind the reader that this study was not designed to account for all possible influences on four-year college enrollment among Hispanic youth or to isolate causal effects. There are undoubtedly other



ways in which Hispanic parents' social networks influence their children's schooling experiences that are not accounted for in this study. For example, parents who talk to the school about issues other than their child's courses or plans after high school are also involved in their children's schooling but may be seeking information or support related to other academic or behavioral issues. Further, a unique focus on the role of Hispanic parents in post-secondary transitions does not address the important role that resources available through extended family play in the educational lives of many students, perhaps especially Hispanic youth (Martinez, 2013). Thus, we echo the call for a more expansive and multidisciplinary agenda for research focused on the many forms and functions of social capital in order to advance understanding of four-year college enrollment across different generations of Hispanic adolescents (Perna & Titus, 2005; Tienda, 2011).

Finally, consistent with a critical quantitative perspective, our research starts from the assumption that postsecondary transitions likely do not operate the same way irrespective of racial/ethnic background, immigrant generation, and postsecondary destination. Therefore, we focus uniquely on enrollment in four-year institutions among Hispanic youth across immigrant generations. This decision is consistent with the assertion that the predictors of four-year enrollment are likely different than the predictors of enrolling in a less than four-year institution (Perna, 2000). There is certainly value in understanding how various factors, including social capital, influence enrollment in and persistence through two-year institutions, and such an analysis deserves the kind of in-depth treatment we dedicate to four-year enrollment here.

## Discussion

In our view, the *sociological* reasons for educational inequality are often overlooked in considerations of college enrollment across immigrant generations of Hispanic youth. Addressing these oversights, with an eye toward how resource exchange depends on embedded social processes that have traditionally been ignored (Tienda, 2011), we have used nationally representative survey data and drawn on social capital theory to explore how different kinds of parent resources—especially those that are embedded in Hispanic parent social networks—are associated with preparation for and enrollment in a four-year college. Furthermore, informed by a critical quantitative perspective, we have focused on *intra-* rather than inter-ethnic variability in the four-year college preparation and enrollment process according to student immigrant generation. Our approach acknowledges that within a critical quantitative framework, one key task is to highlight—often through analysis of large data sets—how students' experiences differ within and across social groups and whether those differences may perpetuate systematic inequities (Stage, 2007; Stage & Wells, 2014).

## *College Enrollment Across Hispanic Immigrant Generation Status*

In three key ways, the findings presented here contribute to the growing body of research which seeks to better understand how immigrant and native-born Hispanic youth and their families navigate college preparation and enrollment. First, across immigrant generations, parents of Hispanic youth use specific forms of social capital to support their children's college enrollment. Second, the forms of parent social capital included in this study differ in their educational importance across student immigrant generation groups. Finally, student engagement in college-aligned actions offers a marked advantage when it comes to four-year enrollment regardless of student immigrant generation status. We discuss these contributions in what follows.

Findings from this research paint a more detailed picture of Hispanic parents' access to and use of social resources as their children navigate post-secondary transitions, including how this process varies according to student immigrant generation. Hispanic parents and families are too often characterized in terms of what they lack rather than the assets they possess and invest in their children's futures (Yosso, 2005). Our results demonstrate that Hispanic parents do access and utilize various forms of college-relevant social capital on behalf of their offspring but in ways that appear to vary depending on children's immigrant generation. Before accounting for other factors previously shown to influence college transitions, we find positive and significant associations between family social capital and enrollment via college-aligned actions for first- and third plus-generation Hispanic students. Before accounting for these other characteristics, intergenerational closure was also positively and significantly linked to college-aligned actions and/or four-year enrollment in all three immigrant generation groups. These findings resonate with previous assertions that parent social resources matter but are often overlooked in considerations of status attainment (Coleman, 1990; Ream, 2005; Ryan, 2016; Tienda, 2011).

Even after controlling for a host of background factors, we still find a strong positive relationship between intergenerational closure and four-year enrollment among first-generation youth. Indeed, among first-generation Hispanic students, a standard deviation increase in intergenerational closure predicts a 6 percentage point increase in the probability of four-year enrollment. Similarly, it is specifically among third plus-generation youth that a standardized unit increase in school social capital predicts a 7 percentage point increase in the probability of four-year college enrollment; moreover, student engagement in college-aligned actions mediates this association. Measurable differences in the convertibility of different forms of parent social capital across Hispanic immigrant generations indicate that the process by which status advantages are transferred from parents to children during postsecondary transitions varies not only across but also *within* racial/ethnic groups.

The fact that informal personal ties among parents were particularly useful for parents of first-generation Hispanic students is consistent with the notion that recent immigrants may be disinclined to seek help from institutional agents in the more formal school context (Stanton-Salazar, 2001; Valenzuela, 1999) and more reliant on strong ties and friendship and kinship networks (Menjívar, 2000; Zhou & Bankston, 1994). On the other hand, parents of third plus-generation youth, who likely completed their schooling in the United States, appeared to more easily leverage relationships with school personnel to support children's postsecondary transitions. It has rarely been investigated whether different *forms* of social capital give evidence of differential exchange value (Ream & Palardy, 2008). We find that parent social capital is educationally important and that its usefulness is conditioned by its forms, the "fields" (Bourdieu, 1986) in which Hispanic parents attempt its exchange, and student immigrant generation status.

In contrast to much of the research on college preparedness among Hispanic youth, which has often focused on where preparation is absent rather than where it is evident, our findings also demonstrate that Hispanic students who align their actions during high school with entry into a four-year institution have a greater probability of beginning college at this level. While this finding is consistent with other recent research on four-year college access (Klasik, 2012; Ryan, 2016), a novel contribution of this study is the finding that engagement in college-aligned actions is similarly beneficial regardless of immigrant generation.

For the average Hispanic student in each of the three generation cohorts we studied, a standard deviation increase in the level of college-aligned actions corresponded to a 38 to 50 percentage point increase in the probability of four-year enrollment, holding all else equal. Placing this finding in more concrete terms, an analysis of student scores on the latent college-aligned actions construct revealed that on average, Hispanic students more than one standard deviation above the college-aligned actions mean appeared especially likely to pursue college preparatory course work and submit applications to more than one four-year institution relative to students whose score on the college-aligned actions construct fell between the mean and one standard deviation above the mean. Just over 90% of students in the former group initially enrolled in a four-year institution compared with 42% of the latter group.

Moreover, our results shed light on some of the factors that may help explain variability among Hispanic youth when it comes to engagement in college-aligned actions. For example, consistently high educational expectations and strong prior achievement promoted highly aligned actions and four-year college enrollment regardless of immigrant generation. For Latinas and students attending a private high school, however, the findings suggest a more complex picture. Both groups had a higher level of college-aligned actions across immigrant generations. These findings are

consistent with previous research on Hispanic youth documenting more successful postsecondary outcomes among females (Riegle-Crumb, 2010; Saenz & Ponjuan, 2009) as well as the benefit of attending a Catholic high school for college readiness (Gándara et al., 2013). Yet, the results show that these same characteristics were not strongly predictive of four-year college enrollment, suggesting that some Hispanic students engage in college-aligned actions yet do not enroll in a four-year institution following high school.

The fact that a desire to remain close to home while attending college shared a negative and statistically significant relationship with four-year college enrollment across generation status groups may indicate that some Hispanic students, for example Latinas or those attending a private high school, take steps that prepare them for a four-year college yet pursue another postsecondary option in order to remain near home. This finding is consistent with other research demonstrating that Hispanic students are more likely than students from other racial/ethnic groups to state that it is important to live at home during college and that this is associated with a lower likelihood of applying to a four-year college, possibly because there are no nearby four-year institutions (Desmond & Turley, 2009; Nuñez & Kim, 2012). It is also possible that this finding partly reflects the fact that some first-generation Hispanic students are undocumented immigrants since legal status is one determinant of access to four-year institutions, in part because it structures access to financial assistance (Flores & Chapa, 2009). Unfortunately, the ELS data do not allow us to identify students' legal status. Not unrelated, application for financial aid was positively associated with four-year enrollment across immigrant generation status groups, and this relationship appeared especially strong among first- and second-generation Hispanic youth. This finding is consistent with recent research on Mexican-origin youth indicating that surmounting the rising cost of a bachelor's degree is particularly critical but often especially challenging for the children of immigrants (Morgan & Gelbgiser, 2014).

These nuanced findings lead us to question whether efforts to achieve more equitable rates of college access across groups can be successful without attending to the diverse needs and experiences of Hispanic students, both within and across immigrant generation status groups. This includes, for example, the experiences of Latinas and students who desire to attend a four-year college while remaining close to home along with the experiences of undocumented immigrants—identities that often intersect. Taken together, our results make clear the need for continued research about how and why processes of preparing for and enrolling in a four-year institution vary *within* the population of U.S. Hispanic youth and how policy and practice can help ameliorate rather than amplify inequities in four-year enrollment and completion. It may be especially important to examine how social context, including compositional differences across schools and communities, may be shaping these results. We encourage further research

into contextual influences on four-year college enrollment among Hispanic students, according to immigrant generation and other characteristics that mark the diversity within this population.

### Directions for Policy and Practice

In the following section, we describe policies and practices that may help facilitate the social exchange of resources, both within and outside of schools, in order to support engagement in college-aligned actions among Hispanic youth—and hopefully more equitable rates of enrollment and persistence in four-year institutions both within the Hispanic population and between Hispanic youth and their peers from other racial/ethnic groups. At the same time, we acknowledge the notion that policy solutions are most wisely undertaken in the context of a cumulative body of findings rather than in response to any single study (McDonnell, 2000).

Access to information about all aspects of college via formal relationships that parents foster in schools can serve as a valuable, if not readily available, resource perhaps especially among parents of first- and second-generation Hispanic youth who may have less familiarity with the U.S. system of higher education. Existing at the intersection between family and community, public schools constitute a crucial public space for augmenting beneficial forms of social capital because schools are among the few stable institutions through which parents connect with each other under the same roof (Saegert, Thompson, & Warren, 2001). In other words, while schools can serve to reproduce existing status hierarchies that maintain power and control over valued resources with certain, often White and middle- or upper-class, segments of society, it is not a certainty that schools must operate this way. Schools can also facilitate access to institutional resources for historically marginalized parents and students by consciously working to facilitate empowering relationships with school agents (Stanton-Salazar, 2001). Indeed, the extent to which effective school reform is predicated on a healthy social paradigm within formal settings has been documented as extremely important to traditionally marginalized youth, including immigrant Hispanic youth (Ream, 2003).

There may be an opportunity in schools to foster empowered parental networks across immigrant generation groups. For example, one well-known program focused on the preparation of low-income and minority students for college is the Advancement Via Individual Determination (AVID) college preparation program. Successful AVID schools use the formal structure of the program to encourage parent engagement through the development of trusting and reciprocal relations among parents and between parents and schools. The skills and strategies learned in AVID help improve student transitions to college and may be of particular benefit for Hispanic adolescents and their parents (Mendiola, Watt, & Huerta, 2010).

We also recognize that ensuring more equitable outcomes for both immigrant and native Hispanic children may require a comprehensive effort to mobilize the social institutions outside of school that play a large role in Hispanic students' educational experiences (Auerbach, 2004; Ream, Ryan, & Espinoza, 2012). We find that immigrant Hispanic parents of first-generation youth seem especially likely to use resources accessed through informal relationships with other parents as opposed to more formal relationship networks that occur in the public sphere and with school personnel. Thus, taking college-going programming to parents through partnerships with, for example, community-based organizations might be especially critical for parents unlikely to attend school-based events, including college and financial aid events, due to work obligations, unease with school staff, or language differences.

Finally, we also see a need for more careful attention to the advantages and disadvantages associated with the vast quantity of online resources now available to students and families as they navigate postsecondary transitions. This issue may be especially relevant for Hispanic families, who have significantly lower rates of home-based Internet access than non-Hispanic Whites (Lee & Barron, 2015). Even *within* the Hispanic population, we see significant differences in technology access and use by which higher family income, being born in the United States, and being English-dominant or bilingual consistently predict higher rates of technology adoption (Lee & Barron, 2015). These findings indicate that practitioners and policymakers at both secondary and postsecondary levels of education must take great care in the deployment of technology-enhanced supports for students. Social media and other online resources can supplement well-designed federal and state policies but are not a replacement for other needed strategies that can facilitate student success (Deil-Amen & Rios-Aguilar, 2014; Martinez, 2013)—including better access to information and support via in-person social exchange.

## Concluding Thoughts

The young immigrant population—and in particular the growing Hispanic population—in the United States has been described as a critical “demographic dividend” predicted to stem population decline and sustain the economic position of the nation. We have used a critical quantitative approach to address the relative lack of research addressing the social dynamics of postsecondary access among immigrant youth (Kim & Díaz, 2013; Tienda, 2011) with a specific focus on parent social capital, college-aligned actions, and four-year college enrollment across different immigrant generations of Hispanic adolescents. Our findings demonstrate that Hispanic parents access and use various forms of social capital to support their children's postsecondary pursuits, although in ways that vary according to

student immigrant generations. Improving college preparation and access among Hispanic youth will require schools and communities to understand and build on the varying social strategies that parents of both foreign- and native-born Hispanic youth rely on to promote engagement in college-aligned actions and subsequent four-year college enrollment among their offspring.

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