Title: Postsecondary Schooling Outcomes of Hispanic Youths in New and Established Immigrant Destinations

Article Type: Research Paper

Corresponding Author: Dr. Rosa Cho, ph.d.

Corresponding Author's Institution: Sung kyun kwan university

First Author: Rosa M Cho

Order of Authors: Rosa M Cho; Deborah Rivas-Drake

Abstract: Among immigrant Hispanic adults in diverse communities, educational attainment is an important predictor of their future social and economic opportunity. Drawing on segmented assimilation theory, this study examined the contribution of community characteristics—new/established destination type, presence of co-ethnic networks and co-ethnic human capital—to college enrollment outcomes among Hispanic youth in the Educational Longitudinal Study: 2002. Although youth whose families resided in new immigrant destinations were initially found to have more human capital, once selection into communities was accounted for via propensity score matching, those youth were less likely to enroll in four-year colleges, adjusting for academic performance, course-taking, and immigration-related factors (e.g., English nativity). However, their decreased likelihood of four-year college enrollment was directly explained by differences in co-ethnic resources in new destinations.

Cover Letter

This paper examines the postsecondary outcomes of Hispanic youths residing in new versus established immigrant destinations using multiple sources of data from four national surveys. The results represent an important contribution to the knowledge base regarding Latino youths' educational attainment.

- Drawing on segmented assimilation theory, this study examined the contribution of community characteristics—new/established destination type, presence of co-ethnic networks and co-ethnic human capital—to college enrollment outcomes among Hispanic youth using data from four national level datasets including the Education Longitudinal Study survey, the USA Counties Series, the American Community Survey, and the Integrated Postsecondary Education Data System.

- We find that although youth whose families resided in new immigrant destinations were initially found to have more human capital, once selection into communities was accounted for via propensity score matching, those youth were less likely to enroll in four-year colleges.

- However, their decreased likelihood of four-year college enrollment was directly explained by differences in co-ethnic resources in new destinations.

Abstract

Among immigrant Hispanic adults in diverse communities, educational attainment is an important predictor of their future social and economic opportunity. Drawing on segmented assimilation theory, this study examined the contribution of community characteristics— new/established destination type, presence of co-ethnic networks and co-ethnic human capital— to college enrollment outcomes among Hispanic youth in the Educational Longitudinal Study: 2002. Although youth whose families resided in new immigrant destinations were initially found to have more human capital, once selection into communities was accounted for via propensity score matching, those youth were less likely to enroll in four-year colleges, adjusting for academic performance, course-taking, and immigration-related factors (e.g., English nativity). However, their decreased likelihood of four-year college enrollment was directly explained by differences in co-ethnic resources in new destinations.

Hispanics are increasingly migrating into areas that have previously had very little immigrant presence, many of which are small metropolitan or rural places (e.g. Bohon et al., 2005; Fisher, 2010; Lichter and Johnson, 2006; Massey et al., 2008). Among immigrant Hispanic adults, including those who settle in these types of communities, educational attainment is an important predictor of various indicators of economic opportunity such as stable, full-time employment, home ownership, and avoidance of poverty status (Kandel, Henderson, Koball, & Capps, 2011). Therefore, it is critical to understand the community conditions under which higher educational attainment can be supported among Hispanic youth in new destinations in order to promote greater economic opportunity among this group.

In this paper, we extend the literature base in several important ways. First, we link data from the Educational Longitudinal Study (ELS): 2002/2006, Integrated Postsecondary Education Data System (IPEDS), the American Community Survey, and the USA Counties Series to thoroughly investigate diverse postsecondary enrollment behaviors (i.e., no enrollment vs. one- vs. two- vs. four-year enrollment) between Hispanics in new versus established immigrant destinations. Then, we address a critical omission in prior studies by accounting for the issue of selection into different types of communities. That is, although previous work suggests that residing in new vis-à-vis established destinations may have different implications for Hispanic youths' educational attainment, it has not sufficiently accounted for selection effects associated with families' choice to reside in communities with varying immigrant population levels. Finally, having accounted for such selection, we then explore nuances in the notion of the context of reception in segmented assimilation theory to unpack the relative importance of various community characteristics for predicting educational attainment among Hispanic youth in new versus established destinations.

Exploring Context of Reception by Community Type

Segmented assimilation theory can be used to explain divergences in the educational attainment and upward mobility of immigrant youth as a function of the interplay of individual characteristics (e.g., human capital) and context of reception, which has two levels: (1) the extent to which the host society encourages and accepts the group and (2) the presence of co-ethnics in the community of settlement to "cushion the impact" of adaptation (Portes & Rumbaut, 2001, p. 48). Portes and Rumbaut's (2001) posit that most Hispanic immigrants face an overall "neutral" societal context of reception in that their pursuit of economic opportunity in the U.S. is neither entirely blocked nor actively encouraged, but rather passively accepted. However, the theory further suggests that the match of immigrants' individual characteristics, skills, and capital to the demands of the new local economic environments (i.e., labor market) is particularly important for the adaptation of their youth. With regard to the role of the co-ethnics, their presence creates a more hospitable context of reception to immigrants; however, as will be discussed, the role of co-ethnic presence in explaining the educational outcomes of youth across various kinds of U.S. immigrant communities is not well understood and merits further examination.

New Destination as Risk

According to Portes and Rumbaut's (2001) logic regarding the role of context of reception, youth in families who move to destinations in which their ethnic community is entirely lacking or has not made economic inroads may be at risk for lower attainment; thus, living in a community with an established co-ethnic presence would be linked to higher educational attainment. If this is the case, immigrants to established destinations would more easily experience a match between their ethnic origin and the presence of an established co-ethnic community and its accordant social networks. Youth in new immigrant destinations may

experience more barriers (e.g., social isolation, susceptibility to negative stereotypes) than their counterparts in established destinations who have additional resources available to them through networks in their co-ethnic community (see also Portes et al., 2005).

Indeed, current literature suggests that institutions in new immigrant destinations may not be structurally equipped to deal with the large influx of Hispanics, resulting in strained social relations due to increased competition for limited resources and programs among members of formerly Black-White cities (Neal & Bohon, 2003; Singer, 2004). It is possible that the impact of immigration is felt most strongly in the school systems of new destination communities in which the need to obtain additional classrooms and teachers for the growing student body is further complicated by the need to specifically address immigrant student needs (e.g., recruit teachers who can teach English as a second language); studies have documented that many small school systems in new destinations do not have the infrastructure or resources to accommodate the needs of immigrants and their children adequately (Zuñiga & Hernández-León, 2005; Wainer, 2006; Wortham et al., 2002). Although theory and community studies suggest that the lack of a co-ethnic community with which to navigate an unsupportive schooling infrastructure may place youth in new destinations at greater risk for lower educational attainment than their counterparts in established destinations, this proposition remains untested in a nationally representative sample.

Established Destination as Risk

In determining which context (new vs. established) affords greater opportunity to youth, it is also important to consider the issue of congruence between individual characteristics and new destinations. Recent reports indicate that Hispanics in new destinations are more likely to be married with children and to be employed than their counterparts in established immigrant

communities (Kandell & Cromartie, 2004), possibly due to a greater match between head of household characteristics/skills and those encouraged by local labor markets. Analysis of Integrated Public Use Microdata Series (IPUMS) data has also found that Hispanics in new destinations actually had *more* years of education (Stamps & Bohon, 2006) than their counterparts in traditional destinations. Consistent with these advantageous characteristics, comparative research has found that Hispanic youth in North Carolina exhibited higher academic motivation than their counterparts in Los Angeles (Perreira, Potochnick, & Fuligni, 2009). Given the established importance of human capital in educational attainment, it is reasonable to posit that the individual and family characteristics (and the match to contextual demands) of families in new destinations may promote higher educational attainment for Hispanic youth in new destinations as compared to their counterparts in established immigrant communities.

In addition, Portes and Zhou (1993) complicated the aforementioned notion of context of reception by also suggesting that, despite greater access to co-ethnics, established immigrant communities place youth in closer proximity to other ethnic/racial minorities who have experienced limited economic mobility; in the context of such challenges as poverty and discrimination, even immigrant youth who are motivated to pursue higher education are likely to struggle with translating supportive family and school characteristics into educational and economic success. If this is the case, not only would Hispanic youth in established destinations exhibit lower educational attainment, but those who reside in communities with fewer educated Hispanics or with more Hispanics in poverty may be even less likely to pursue postsecondary education.

The Present Study

Nuances in the notion of context of reception suggest that although access to co-ethnics may be beneficial to immigrants, its salutary aspects are potentially limited by other socioeconomic characteristics of the community. In this study, we draw on the notion of the context of reception in segmented assimilation theory to unpack the relative importance of various community characteristics—including access to co-ethnic networks, Hispanic poverty rate and educational levels, and proximity to four-year colleges—in predicting Hispanic attainment in new versus established destinations. We do so while accounting for selection effects associated with families' choice to reside in communities with varying immigrant population levels, an issue which has not been addressed in previous studies.

In order to better gauge the role of these community characteristics, which is the primary goal of the paper, we take into account academic, family, and school characteristics that are known to influence postsecondary attainment. We first account for youths' own academic performance and schooling histories. Specifically, we include controls for academic performance (e.g., standardized test scores, grade repetition) and advanced math (i.e. calculus) course-taking in high school to address educational disparities (e.g., Schneider, Swanson, & Riegle-Crumb, 1998) that may contribute to Latino students' lower rates of college matriculation.

In addition, numerous studies highlight the role of the family in shaping educational outcomes of youth who are socially and economically disadvantaged, including immigrants. According to Coleman (1988), strong social ties within the family (i.e., family social capital) results in the formation of an efficient conduit of norms, standards and expectations that enable children to succeed academically. We further follow Kim and Schneider's (2005) suggestion that it is necessary to consider alignment between parents' actions and children's goals in examining

the effects of social capital on immigrant youths' postsecondary education: functionally specific actions of parents can effectively bridge resources and information to adolescents, enabling them to make informed choices about college. Therefore, in this study, we employ a dynamic perspective on family social capital and examine the alignment in the actions between parents and their children in addition to the quality of parent-child relationships as well as available information networks, above and beyond household structure (Astone et al., 1999; Glick & White, 2004).

Finally, schools are the primary institutions in which immigrant youth gain knowledge needed to navigate various postsecondary options (Stanton-Salazar & Dornbusch, 1995). A number of studies suggest that human resources at school (i.e., helpful adults) may play a critical role in the college enrollment decisions of immigrant, low-income, and ethnic minority youth, above and beyond parental resources (e.g., Gándara & Contreras, 2009; McDonough, 1997; Perez & McDonough, 2008; Stanton-Salazar, 2001; Tierney & Venegas, 2006). Researchers also note the importance of a school's norms around postsecondary planning and education (e.g., McDonough, 1997; Perez & McDonough, 2008; Stanton-Salazar, 2001; Stanton-Salazar & Dornbusch, 1995; Tierney & Venegas, 2006). For example, youth attending schools that proactively help students navigate postsecondary decisions by providing assistance with college applications, financial aid forms, and essay preparation were more likely to enroll in college (Hill, 2008; Perna, 2000). Thus, the presence of helpful adults (i.e., who can provide information and guidance) together with college-going norms at school appear to be critical catalysts for the enactment of educational goals (e.g., Goyette & Conchas, 2002; Roderick et al., 2008).

Data

The data for this paper comes from the Education Longitudinal Study (ELS 2002/2006) made available through the National Center for Education Statistics (NCES). ELS is a nationally representative sample originally designed specifically to monitor the transition of young people as they progress from tenth grade (Base year: 2002) through twelfth grade (Wave 1: 2004) and on to postsecondary education or the workplace (Wave 2: 2006). It provides detailed information on youths' school experiences during and following high school as well as on their parents, teachers, and schools. To explore postsecondary enrollment behavior of Hispanic youths and the role destination type plays in this decision making process, we use the *restricted* ELS survey (instead of public-use files) that contains information on each youth's ethnicity, census tract, county, and state of residence.

The restricted ELS survey is merged onto three additional data sets. The first data set is created by extracting county level information on the percentage of Hispanic populations during 1990 and 2000 from the *USA Counties Series* at the U.S. Census Bureau.[1] The second data set comes from the 2005-2009 American Community Survey (ACS) which contains <u>census tract</u> level information on three measures: 1) the percentage of population representing each ethnic group (e.g. Mexican, Cuban, Dominican, Puerto Rican, Central American, and South American); 2) percentage of Hispanics living below poverty status in past 12 months; and 3) educational attainment of Hispanics 25 or older. We include additional variables at the census tract level to account for complexities of the modes of immigrant incorporation across communities within counties by capturing differences in representation *and* social status across ethnic groups (Portes and Zhou, 1993). Lastly, the third dataset extracts county level information on the availability of

---

[1] The percentage of Hispanic populations is calculated by dividing the total number of Hispanics by the total population within each county. Available at: http://censtats.census.gov/usa/usa.shtml.

four-year colleges in the youth's county of residence from the Integrated Postsecondary Education Data System (IPEDS) available through NCES. This variable is included to address issues of proximity in examining youths' postsecondary education decisions.

Prior research on Hispanic immigrant growth patterns have consistently shown a shift in migration patterns during the 1990s to non-traditional destinations outside of major metropolitan areas in rural and semi-rural places (Johnson & Lichter, 2008; Lichter & Johnson 2006, 2009; Suro & Singer, 2002). To better understand how certain destinations may influence Hispanic youths' decision to access postsecondary institutions, we characterized counties into different destination types. The choice to focus on counties as the level of analysis is consistent with the fact that recent change in migration pattern has been largely attributed to increased employment opportunities in non-metro and non-southwest labor markets (Bohon, Macpherson, & Atiles, 2005; Crowley, Lichter, & Quian, 2006). Counties are classified into three destination types – new emerging, established, and other – based on two factors: 1) the *relative* growth rate in the Hispanic population from 1990 to 2000 and 2) the initial percent of the population that was Hispanic in 1990. The relative growth rate in the Hispanic population is computed by dividing the percent change in the Hispanic population from 1990 to 2000 by the percent change of the total population within that county from 1990 to 2000. In contrast to prior research, we adopt the use of relative growth rate (as opposed to absolute growth rate) to isolate the degree of Hispanic growth from other factors that may be contributing to growth in the overall population within each county that is not unique to the Hispanic population (Fisher, 2010; Kandel and Cromartie, 2004; Johnson & Lichter, 2008). This new estimation technique should improve the classification of counties into destination type by accurately estimating the growth in Hispanic population that is occurring above and beyond any existing trend in population growth.

New emerging destinations are defined as counties in which less than 9% of the population were Hispanic as of 1990 (the national average Hispanic population in 1990) and subsequently experienced relative Hispanic growth rates that exceeded the national average of relative Hispanic growth rate from 1990 to 2000.[2] *Established Hispanic destinations* are defined as counties having populations that were at least 9% Hispanic in 1990 and at least 12.5% Hispanic in 2000 (the national average Hispanic population in 1990 and 2000, respectively). All remaining counties are categorizes as *other*. Table 1 provides detailed information on the characterization of counties within the ELS sample.

There are a total of 2,210[3] Hispanic youths in the original ELS sample at base year (2002). However, given that the objective of the paper is to explore youths' postsecondary choices, we restrict the sample to those who respond to all three sampling periods with non-missing information on their postsecondary choice. This reduces the sample size to 1,710 students who reside in a total 319 counties. Among the 1,710 Hispanic youths, 390 are found to reside in the 169 counties classified as new emerging destination, 1,170 reside in the 77 counties classified as established destinations, and 150 reside in the 73 counties classified as the other category. Given that the goal of this paper is to examine differences in college going patterns between Hispanics residing in new versus established destinations, we drop the 154 students residing in the other category from future analyses. As a result, the final sample consists of 1,560 Hispanic youths residing in either a new emerging or established destination.

Analytic Approach

1. Exact Block Matching using Propensity Scores of Residing in a New Emerging Destination

---

[2] The national average relative Hispanic growth rate from 1990 to 2000 was roughly 4.41.
[3] As per the IES requirements for reporting of restricted-use data, all sample size numbers are rounded to the nearest 10.

To address concerns related to selection bias in a household's choice to reside in a certain destination, we begin the analysis by accounting for any self-selection that may be involved in a family's choice to locate in a new emerging versus established destination. The propensity score (P($\mathbf{Z}$)) is defined as the conditional probability that a youth with vector $\mathbf{Z}$ of observed covariates will reside in a new emerging Hispanic destination (D = 1), i.e. P($\mathbf{Z}$) = Pr(D = 1 | $\mathbf{Z}$). The propensity score (P($\mathbf{Z}$)) is a scalar function that summarizes the information required to balance the distribution of the covariates between youth in a new emerging versus established Hispanic destination (Rosenbaum & Rubin, 1984). The propensity score is estimated using a logit model (Rosenbaum and Rubin, 1984) for D,

$$\log [P(\mathbf{Z})/(1-P(\mathbf{Z}))] = \alpha + \beta f(\mathbf{Z}) \tag{1}$$

where α and β are parameters and $f(\cdot)$ is a specified function. Variables are included in the model on the basis of three criteria: (a) statistical significance of the included regressors, (b) minimization of classification errors, and (c) meeting the balancing property. Interaction terms of variables are included to satisfy the balancing property. This ensures the distribution of $\mathbf{Z}$ to be the same between new emerging and established destination groups within strata of homogeneous propensity scores (P($\mathbf{Z}$)) (Dehejia and Wahba, 1999, 2002). The final model includes a total of 23 variables – 21 demographic covariates and 2 interaction terms between these variables. The demographic covariates include mother's and father's education level (high school dropout; high school graduate; attended or graduated two-year postsecondary institution; attended four-year college but no degree; four-year college graduate or higher degree), number of in-home siblings (no siblings; one or two siblings; three or more siblings; sibling information missing), parental marital status, household income in 2001 ($\leq$\$25,000; \$25,000< $\leq$\$50,000; \$50,000< $\leq$\$100,000; >\$100,000), mother's and father's occupation type (professional

occupation versus not professional occupation), socio-economic status, and family structure (two parent household; two adult household; single parent or guardian household).

To ensure that Hispanic youths are matched within common regional economic and policy contexts (Kandel, Henderson, Koball, & Capps, 2011; Sáenz, 1991), we conduct exact matching by youths' region (northeast, Midwest, west, and south) using the propensity score estimated in Eq. (1). This means that we perform the matching algorithm separately for each region. Such technique is commonly used to overweight certain variables that are considered to play a specifically important role in determining participation and outcome (Cho, 2009). We impose a 2 percent common support condition, employ kernel weighted matching, and match on the log odds ratio of the estimated propensity score, $\ln\{P\,(\mathbf{Z})/(1 - P(\mathbf{Z}))\}$.[4]

2. Multinomial Logistic Regression

Once the matching procedure is completed, we estimate the following multinomial logistic regression on the reweighted observations:

$$P_j = b0 + b1(\text{New Destination}) + b2(\text{English Fluency}) + b3(\text{Immigration related factors}) + b4(\text{High School Performance}) + b5(\text{High School Course-taking}) + b6(\text{Family characteristics}) + b7(\text{School characteristics}) + b8(\text{Nearby College}) + b9(\text{Census Tract Context}) + b10(\text{Propensity-hat}) + \varepsilon \tag{2}$$

The multinomial logistic regression predicts the likelihood of the jth enrollment alternative being chosen among the four possible options: no enrollment vs.one-year vs. two-year vs. four-year enrollment (Maddala, 1983). For identification of the model, the vector of coefficients for one of the values of the choice variable must be normalized to zero. We choose "no enrollment" as the reference category. Thus, the estimated coefficients represent the effect of a change in the

---

[4] When the true population weights are unknown, the odds ratio estimated using the incorrect weights is a scalar multiple of the true odds ratio which is itself a monotonic transformation of the propensity scores (Smith and Todd, 2005).

independent variable on the log of the probability of choosing an alternative postsecondary outcome relative to the probability of choosing the reference category, no enrollment. The coefficient of the *New Destination* dummy variable ($b1$) will indicate the gap in the likelihood of attending a specific postsecondary institution relative to the likelihood of no enrollment for youths residing in new emerging destinations as compared to their established destination counterparts. The model does not control for the socio-demographic characteristics that were already accounted for in the propensity score matching phase of the estimation.

Eq. (2) controls for whether English is youth's native language as well as whether English is parent's native language. The model also controls for immigrant generational status (first generation; second generation; third generation or above) and the number of years since mother's and father's arrival to the U.S. Students' academic performance (e.g. tenth grade reading and math standardized test scores as well as grade repetition status from kindergarten to tenth grade) and advanced course-taking patterns (e.g. years of calculus course work by twelfth grade) in high school are included. In addition, based on the literature reviewed, three family characteristic variables specific to college-going are included as controls. Quality of parent-child relationships was measured using information on the degree of parental engagement in activities with the child in tenth grade such as frequency in attending school activities, working on homework/school projects, working on a hobby or playing sports, attending religious services, attending family social functions, spending time just talking, and/or doing something else fun together. An index variable was created by adding the values of seven separate indicator variables created from each of the item questions in which the answer 'frequently' was coded as 1 and 'sometimes/rarely' was coded as 0. Strength of parents' information network was measured by the level of parental connection with the tenth grader's school or community through questions on whether the parent

belongs to, attends, or takes part in the activities of the schools' parent-teacher organizations, by

whether the parent belongs to any other organization with several parents from the tenth grader's

school such as neighborhood or religious organizations, or by whether the parent acts as a

volunteer at the school. Again an index variable was created by adding the values of five separate

indicator variables created from each of the item questions in which the answer 'yes' was coded as

1 and 'no' as 0. And lastly, the degree of alignment of parental action with tenth grader's college

expectations was assessed by whether the parent provided any information or advice on taking

college entrance exams, or applying to college, as well as by saving money for the child's

education after high school. An index variable was created by adding the values of three separate

indicator variables created from each of the item questions in which the answer

'sometimes/often/yes' was coded as 1 and 'rarely/no' as 0.

Three aspects of schooling were included as controls. First, access to human resources was

measured by the number of school adults the student (in twelfth grade/2004) has approached for

advice on entrance requirements for college (i.e., guidance counselor, teacher, coach).[5] In addition,

a school's norm for postsecondary education (administrator-reported) was assessed with a

composite measure of the following variables: the level of student engagement in special programs

for college preparation (in 2002); the fraction of students who attend college preparation programs

(in 2004); and by the fraction of students who entered a 4-year college during the previous year (in

2004).[6] Higher values of the composite measure indicate a stronger school norm that promotes 4-

---

[5] If the answer to this question was missing when the student was in twelfth grade, we used the student's reply in tenth grade. The variable is coded as missing when answers to this question were missing for both the 2002 (tenth grade) and 2004 (twelfth grade) surveys.

[6] The variable indicating the level of student engagement in special programs for college preparation in 2002 had 3 categories (all, some, and none). Each value was assigned a value of 2, 1, 0, respectively. The variables indicating the fraction of students either attending college preparation programs in 2004 or who entered a 4-year college during the previous year had 6 categories (75-100%, 50-74%, 25-49%, 11-24%, 1-10%, none). Each category was assigned a value of 5, 4, 3, 2, 1, 0, respectively. The composite measure was created by adding the values of these three variables.

year college-going behavior. Finally, a school's norms (parent-report) for educational planning was assessed with two items from the parent survey asking how often have they been contacted by the school regarding their 10th grader's "plans after leaving high school" and "course selection for entry into college, vocational, or technical school after completing high school" (response categories: more than four times, three to four times, once or twice, none).[7] Again higher values of the composite measure indicate a stronger school norm for educational planning.

In terms of community context, an indicator variable denoting the presence of any four-year college(s) in the youth's county of residence is included to control for the issue of proximity in one's decision to enroll in a postsecondary institution. Also, three variables measured at the census tract level are included to control for differences in available resources made available through networks in their co-ethnic community: percentage of own-ethnic (national origin) group, percentage of adult Hispanics living below poverty level, and percentage of adult Hispanics with certain educational attainment levels (less than high school diploma, high school graduate/GED, some college/associate degree, bachelor's degree or more). Lastly, the estimated propensity score is included as an additional covariate to control for any remaining confounding factors between youths in different community types.

Results

<u>Descriptive Statistics</u>

Table 2 presents characteristics of the sample Hispanic youths in new emerging versus established destinations. Not surprisingly, the majority of youths in established destinations reside in the western region (53%), whereas youths in new emerging destinations mostly reside in the south (45%), northeast (23%), and Midwest (22%). In terms of socio-demographic

---

[7] Each response category was assigned a value of 3, 2, 1, 0, respectively. The composite measure was created by adding the values of the two variables.

characteristics, we find that Hispanics in established destinations are more disadvantaged than Hispanics in new emerging destinations: youths in established destinations tend to have more siblings, have less educated parents, have lower socio-economic status, and have lower household income than youths in new emerging destinations. They are also less likely to have parents with professional occupations and parents who are married. Such discrepancies indicate that it may be important to appropriately control for any selection effects in the choice to reside in certain immigrant destinations.

In addition to differences in socio-demographic characteristics, we find that there are differences in residential choice across ethnicities – among the Hispanic population Mexicans comprise an overwhelming majority of those residing in established destinations (76%), whereas Mexicans (41%), Puerto Ricans (24%), Central Americans (12%), and South Americans (16%) each represent a sizeable portion in new emerging destinations. Both youths and parents residing in new emerging destinations are more likely to be English native speakers than those residing in established destinations. Youths in new emerging destinations are also less likely to be first or second generation immigrants compared to youths in established destinations.

There is little pronounced difference between youths in new emerging versus established destinations in terms of high school academic performance, family social capital, and school resources. However, we find that the community level characteristics are mixed in terms of encouraging youth enrollment in four-year colleges between established and new emerging destinations. Specifically, although established destinations are much more likely to have a four-year college within the county of residence and to have much higher representation of their own ethnic groups within their census tract compared to new destinations, they are also more likely to have high concentrations of Hispanics living below poverty with low education levels.

Selection into New emerging versus Established Destinations

Results from estimating Eq. (1) are reported in Table 3. A total of 390 youths in new emerging

destinations are matched to 1,170 youths in established destinations. The final model generates

propensity scores between 0.08 and 0.62. Each coefficient represents the effect of each covariate

on the probability of the youth residing in a new emerging destination. Among the several socio-

demographic characteristics included in the model, mother's education level and household

income appear to have strong statistical significance: specifically, youths whose mothers are high

school dropouts are less likely to reside in new emerging destinations compared to youths with

high school graduate mothers; also, higher household income corresponds to increased likelihood

of residing in new emerging destinations.

The distribution of the estimated propensity scores of youths in new emerging versus

established destinations are reported in Figure 1. There are noticeable differences in the

distribution of the estimated propensity score between youths in new emerging and established

destinations according to histogram (a). Youth in the established destinations are heavily

concentrated in the lower end of the distribution compared to youth in new emerging destinations.

In contrast, the matched sample histogram (b) presents a distribution of propensity scores that are

much more aligned between the two groups. These results confirm the need to control for

observed differences between the two groups using an appropriate matching technique.

Enrollment in Postsecondary Institution by Destination Type

We find that a variety of factors shape the postsecondary educational outcomes of Hispanic

youth after accounting for socio-demographic characteristics via propensity score matching.

Consistent with prior research, high school academic performance, ethnicity, and immigration

generational status play a significant role in explaining variations in youth postsecondary

outcomes (Glick & White, 2003; Glick & White, 2004). Although the study finds that variation in family social capital as well as school resources influence Hispanic youth outcomes, it does not find strong evidence to support the importance of context of reception within the co-ethnic/Hispanic community in predicting Hispanic postsecondary educational outcomes. In addition, once we control for high school academic performance, ethnicity, immigration-related factors, family and school characteristics, and community context, we find no statistical difference in the rate of enrolling in a four-year, two-year, or one-year college between Hispanics residing in new emerging versus established destinations.

Table 4 shows the results from a series of multinomial logistic regressions predicting the likelihood of attending a four-year/two-year/one-year postsecondary institution relative to the likelihood of no enrollment on the sample youth of Hispanics. Each column presents results as we add on the following covariates: (1) none (baseline); (2) the estimated propensity score; (3) ethnicity, English fluency, immigration-related factors; and (4) high school academic performance. Estimates in columns (2), (3), and (4) use the reweighted matched sample resulting from the estimation of the propensity score. At baseline, Hispanics in new emerging destinations are marginally more likely to attend a four-year postsecondary institution and are significantly less likely to attend a one-year postsecondary institution (relative to not attending any postsecondary institution) compared to Hispanics in established destinations. However, the apparent advantage Hispanic youths in new emerging destinations have over those in established destinations (in terms of four-year college enrollment rate) disappears and in fact becomes a disadvantage once we control for differences in socio-demographic characteristics between youths in the two destinations via propensity score matching (see column (2)). As additional covariates are added to the model estimating the likelihood of enrolling in a four-year college in

columns (3) and (4), the coefficient(s) of the variable "new emerging destination" stays negative and grows in absolute magnitude. This indicates that any apparent advantage Hispanic youth in new emerging destinations had over those in established destinations at baseline (in column (1)) were in fact due to differences in omitted factors such as socio-demographic characteristics, ethnicity, English fluency, immigration-related factors, and high school academic performance. The addition of these covariates does not explain away the disadvantage of attending a one-year postsecondary institution (relative to no enrollment) for youths in new emerging destinations compared to youths in established destinations. Also, there appears to be no statistical difference in the rate of enrolling in a two-year institution across destinations.

In Table 5, results from the multinomial logistic regression on the postsecondary educational outcomes of Hispanic youth between new emerging and established destinations are presented while accounting for family social capital, school norms and resources (column (1)), community context of reception (column (2)), and availability of four-year college (column(3)). As seen in column (1), the disadvantage in the four-year college enrollment rate of Hispanic youth residing in new emerging destinations versus those residing in established destinations remains unchanged even after controlling for family social capital and school norms and resources. However, as the community context of reception variables (percentage of own-ethnic group, percentage of Hispanics living below poverty, and percentage of Hispanics with various educational attainment levels) are added to the model in column (2), the coefficient of the variable "new emerging destination" becomes statistically insignificant and the magnitude decreases by 55% for four-year college enrollment. This indicates that the disadvantage associated with enrolling in four-year colleges of Hispanic youths in new emerging destinations is related to the difference in the context of reception between Hispanics in the two destinations.

Specifically, youths in new emerging destinations have less access to co-ethnic networks than youths in established destinations which in turn appear to negatively affect youth postsecondary educational outcomes.[8] In column (3), the addition of the variable "availability of four-year college(s) within their resident county" further reduces the coefficient of the variable "new emerging destinations" for four-year college enrollment. This implies that Hispanics in new emerging destinations were less likely to enroll in four-year colleges partly due to limited geographic access.

In addition, among the three family social capital variables, alignment in the actions between parents and their children toward college enrollment is found to be most important and parental information networks are found to be marginally important in predicting the likelihood of attending a four-year college. In terms of school characteristics, human resources at school (i.e., number helpful adults) are found to positively influence the four-year as well as two-year college enrollment rates, while lacking information on this variable statistically significantly predicts less likelihood of enrolling in such postsecondary institutions. This is not surprising since youths who are missing information on this variable are those who answered that they were not planning to continue education at some time in the future (at either twelfth or tenth grade). In addition to human resources, school norms around postsecondary education is found to predict greater likelihood of enrolling in both four-year and two-year institutions. Lastly, in terms of the community level variables, we only find the availability of four-year colleges within the resident county to predict greater likelihood of enrolling in a four-year institution, while access to co-ethnic networks, Hispanic poverty rate, and Hispanic educational attainment levels are not found to be associated with postsecondary outcomes independently. We do, however, find that these

---

[8] The coefficient of the variable "new emerging destination" becomes statistically insignificant and the magnitude decreases by 40% for four-year college enrollment when the variable "percentage of own-ethnic group" is added to the model in column (1).

variables (co-ethnic networks, Hispanic poverty rate, and Hispanic educational attainment levels) are jointly marginally statistically significant in predicting Hispanic youth outcomes with a *p*-value of 0.06.

Discussion

The purpose of this paper was to explore the community conditions under which higher educational attainment can be supported among Hispanic youth in new destinations by looking at the enrollment rate at four-year, two-year, and one-year postsecondary institutions. Our results point to several important findings. First, our results underscore the importance of appropriately accounting for selection when examining the outcomes of Hispanic youth across destination type. As is suggested by earlier studies, we found that there is marked difference in socio-demographic characteristics among populations across new emerging versus established destinations and that inadequate treatment of such differences could lead to a positive bias in estimates towards favoring the outcomes of youth in new emerging destinations (Fisher, 2010; Stamps & Bohon, 2006). As Lichter and Johnson (2009) point out, not only do established destinations have a larger share of new immigrants and foreign born Hispanic populations than new emerging destinations, but the education levels of Hispanic migrants to new destinations often exceed those of Hispanics in established destinations. In our study, we also document this trend: households in new emerging destinations have higher maternal and paternal education levels, higher household income levels, and fewer youths with foreign-born parents than households in established destinations.

Our results underscore the importance of controlling for the community context of reception when examining Hispanic outcomes across destinations. We find that youths residing in new emerging destinations may appear disadvantaged in terms of postsecondary educational

outcomes when the model only controls for individual, family, and school level characteristics. Although existing studies mention the importance of the context of reception for immigrants (i.e., segmented assimilation theory), to our knowledge, this is the first study that attempts to measure and quantify the level of co-ethnic representation in the community as well as the context of such challenges as co-ethnic poverty and social status (i.e. education levels). These measures are selected and examined as indicators of the extent to which the host society encourages and accepts the target immigrant group.

In this study, we find that the variables measuring the community context of reception lack statistical significance in predicting youths' postsecondary educational outcomes. However, we do find that these variables (in addition to availability of four-year college in resident county) explain why youths in new emerging destinations were less likely to enroll in four-year colleges than youths in established destinations, even after controlling for socio-demographic characteristics, ethnicity, English fluency, immigration-related factors, high school academic performance, family social capital, school norms and resources. That is, Hispanic youths in new emerging destination have less access to co-ethnic networks and four-year colleges within their resident county, and these disadvantages mediate the negative association between new destinations and four-year college enrollment. In addition, a joint *F*-test of the context of reception variables indicates that collectively they predict youth postsecondary educational outcomes with a *p*-value of 0.02. And, moreover, posthoc analyses revealed that there is no differential (i.e., moderation) effect of context of reception by destination type on youth enrollment in postsecondary institutions (results available upon request).

Our findings are consistent with, and provide partial support for, the segmented assimilation hypothesis which argues that the larger community in which immigrants are

embedded will shape youth outcomes. The present results also provide an empirical benchmark for future studies on the relationship between community context and immigrant youth outcomes in new versus established destinations. In particular, it underscores the need for additional research on the community characteristics of new emerging destinations to which immigrants move. To date, there is limited research on the labor market and co-ethnic network characteristics of new destinations. Given the findings of the present study, the key to promoting social mobility and limiting racial inequality in these new emerging Hispanic destinations may lie in creating strong co-ethnic ties with which to buffer any challenges in their local communities.

Limitations. As with most research, the present findings must be considered with caveats. For example, information about persistence in postsecondary pathways is not currently available and thus it is not known whether enrollment ultimately translates into completion of such pursuits, or if those who did not enroll in a two- or four-year college immediately after high school did so at a later point in time. In addition, it is not known whether youth who are classified as "not enrolled" according to the ELS opted to enter the military, the workforce, or some other alternative. Relatedly, the present focus on college enrollment precludes understanding of alternative pathways to young adulthood, in particular, the transition to the workforce. Future studies should examine multiple outcomes in young adulthood, if and when this is possible.

Despite these limitations, the results represent an important contribution to the knowledge base regarding Latino youths' educational attainment. As we have seen, the role of family and school resources in the educational attainment process should not be underestimated for youth in both established and new destinations. Programs that support the development of parents' ability

to promote high educational expectations and expand schools' capacities to promote college enrollment among students reflect important areas for continued intervention. Increasing the educational attainment of Latinos—from all national origins—in diverse areas of the U.S. is a significant challenge but one that must be addressed in order to ensure positive long-term economic, social, and health outcomes for this rapidly growing segment of youth.

References

Astone, N.M., Nathanson, C. A., Schoen, R., and Kim, Y. J. (1999). Family demography, social theory, and investment in social capital. *Population and Development Review*, 25, 1-31.

Bohon, S. A., H. Macpherson, & J. H. Atiles. 2005. "Educational barriers for new Latinos in Georgia," *Journal of Latinos and Education*, 4(1): 43-58.

Boyd, M. 2002. "Educational attainments of immigrant offspring: Success or segmented assimilation?", *International Migration Review*, 36(4): 1037-1060.

Cho, R. M. 2009. "Impact of maternal imprisonment on children's probability of grade retention," *Journal of Urban Economics*, 65: 11-23.

Coleman, J. 1988. Social capital in the creation of human capital. *American Journal of Sociology,* 94(supplement): S95-S120.

Crowley, M., D. T. Lichter, & Z. Qian. 2006. "Beyond gateway cities: Economic restructuring and poverty among Mexican immigrant families and children," *Family Relations, 55*: 345–360.

Dehejia, R. & S. Wahba. 1999. "Causal effects in nonexperimental studies: Reevaluating the evaluation of training programs," *Journal of the American Statistical Association*, 94 (448): 1053–1062.

Dehejia, R. & S. Wahba. 2002. "Propensity score-matching methods for nonexperimental causal studies," *The Review of Economics and Statistics* 84 (1): 151–161.

Fisher, M. J. 2010. "Immigrant educational outcomes in new destinations: An exploration of high school attrition," *Social Science Research* 39: 627-641.

Gándara, P., & Contreras, F. (2009). *The Latino education crisis: The consequences of failed social policies*. Cambridge, MA: Harvard University Press.

Glick, J. E., & M. J. White. 2003. "Academic Trajectories of Immigrant Youths: Analysis within and across Cohorts," *Demography* 40(4): 759–783.

Glick, J. E., & M. J. White. 2004. "Post-secondary school participation of immigrant and native youth: the role of familial resources and educational expectations," *Social Science Research* 33: 272–299.

Goyette, K., & Conchas, G. (2002).Family and non-family roots of social capital among Vietnamese and Mexican American children. In B. Fuller & E. Hannum (Eds.), *Schooling and social capital in diverse cultures*, (pp. 41-72). Oxford, UK: Elsevier Science.

Hill, L. 2008. School strategies and the "college-linking" process: Reconsidering the effects of high schools on college enrollment. *Sociology of Education 81*(1), 53-76.

Johnson, K. M. & D. T. Lichter. 2008. "Natural Increase: A new source of population growth in emerging Hispanic destinations in the United States." *Population and Development Review* 34(2): 327–346.

Kandel, W., Henderson, J., Koball, & Capps, R. (2011). Moving up in rural America: Economic attainment of nonmetro Latino immigrants. *Rural Sociology* 76(1): 101-128.

Kim, D. and B. Schneider. 2005. Social capital in action: Alignment of parental support in adolescents' transition to postsecondary education. *Social Forces 84*(2): 1181-1206.

Lichter, D. T. & K. M. Johnson. 2006. "Emerging rural settlement patterns and the geographic redistribution of America's new immigrants," *Rural Sociology* 71: 109–131.

Lichter, D. T. & K. M. Johnson. 2009. "Immigrant Gateways and Hispanic Migration to New Destinations," *International Migration Review* 43(3): 496–518.

Maddala, G. S. 1983. *Limited-dependent and qualitative variables in econometrics.* Cambridge: Cambridge University Press.

Massey, D. 2008. *New faces in new places: The changing geography of American immigration.* New York, NY: Russell Sage.

McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure opportunity*. Albany, NY: SUNY Press.

Neal, M. M., & Bohon, S. A. (2003). Dixie diaspora: Attitudes toward immigrants in Georgia. *Sociological Spectrum* 23(2): 181–212.

Perez, P. A., & McDonough, P. M. (2008). Understanding Latino and Latina college choice: A social capital and chain migration analysis. *Journal of Hispanic Higher Education,* 7(3): 249-265.

Perna, L. W. 2000. Differences in the decision to enroll in college among African Americans, Hispanics, and Whites. *Journal of Higher Education*, 71: 117-141.

Perreira, K., A. J. Fuligni, & S. Potochnick. 2009. Fitting in: The roles of social acceptance and discrimination in shaping the academic motivations of Latino youth in the U.S. Southeast. *Journal of Social Issues* 66(1): 131-153.

Portes, A., P. Fernandez-Kelly, & W. Haller. 2005. Segmented assimilation on the ground: The new second generation in early adulthood. *Ethnic and Racial Studies* 28(6): 1000-1040.

Portes, A. & R. Rumbaut. 2001. *Legacies: The story of the immigrant second generation*. Berkeley, CA: University of California.

Portes, A. & M. Zhou. 1993. The new second generation: Segmented assimilation and its Variants. *Annals of the American Academy of Political and Social Science* 530: 74-96.

Roderick, M., Nagaoka, J., Coca, V., & Moeller, E. (2008). *From high school to the future: Potholes on the road to college*: Consortium on Chicago School Research Report. Retrieved April 1, 2009 from Chicago School Consortium Research Web site http://ccsr.uchicago.edu/content/publications.php?pub_id=122.

Rosenbaum, P.R. & D. B. Rubin. 1984. Reducing bias in observational studies using subclassification on the propensity score. *Journal of the American Statistical Association* 79 (387): 516–524.

Sáenz, R. 1991. Interregional migration patterns of Chicanos: The core, periphery, and Frontier. *Social Science Quarterly* 72(1): 135-48.

Schneider, B., C. B. Swanson, & C. Riegle-Crumb. 1998. Opportunities for learning: Course sequences and positional advantages. *Social Psychology of Education* 2: 25–53

Singer, A. (2004). The Rise of New Immigrant Gateways. The Living Census Series. Center on Urban & Metropolitan Policy, The Brookings Institution.

Stamps, K. & S. A. Bohon. 2006. Educational attainment in new and established Latino metropolitan destinations. *Social Science Quarterly* 87: 1225–1240.

Stanton-Salazar R. (2001). *Manufacturing hope and despair: The school and kin support networks of U.S.-Mexican youth*. New York, NY: Teachers College Press.

Stanton-Salazar, R. D., & Dornbusch, S. M. (1995). Social capital and the reproduction of inequality: Information networks among Mexican-origin high school students. *Sociology of Education 68*: 116-135.

Suro, R. & A. Singer. 2002. *Latino growth in metropolitan America: Changing patterns, new locations*. The Brookings Institution. Washington, DC.

Tierney, W. G., & Venegas, K. M. (2006). Fictive kin and social capital: The role of peer groups in applying and paying for college. *American Behavioral Scientist 49*(12): 1687-1702.

Wainer, A. 2006. "The New Latino South and the challenge to American public education." *International Migration* 44(5): 129-165.

Wortham, S., Murillo, E. G., Hamann, E. T. (2002). *Education in the new Latino diaspora: Policy and the politics of identity*. Westport, CT: Ablex.

Zuñiga, V. & R. Hernández-León. 2005. *New destinations: Mexican immigration in the United States*. New York, NY: Russell Sage.

Figure 1. Distribution of the Estimated Propensity Scores
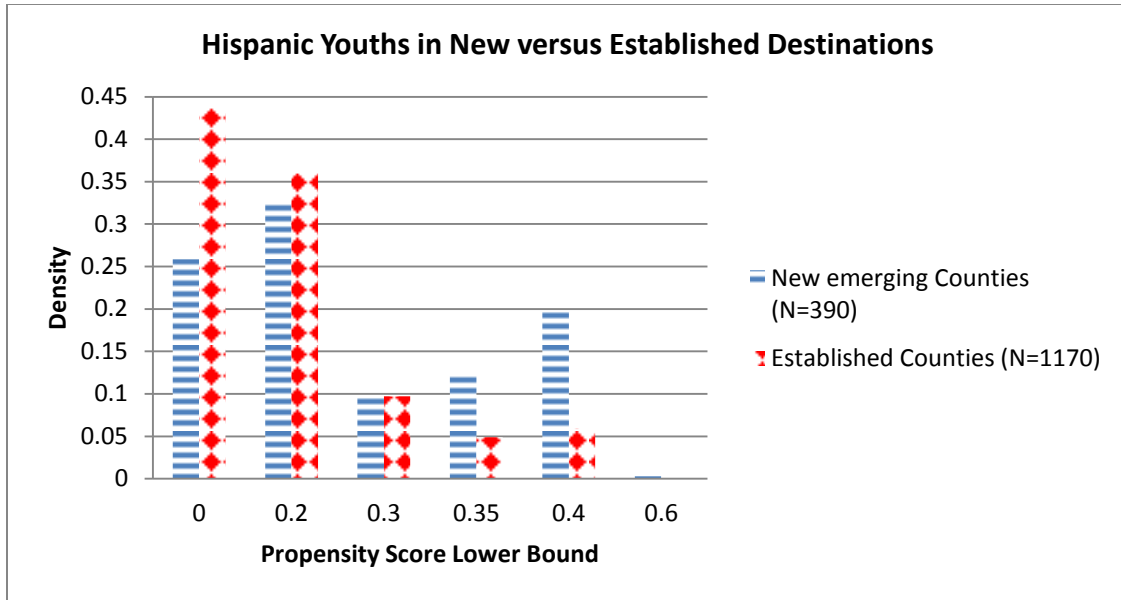
Note: The *x*-axis represents the lower bound of the propensity score. The intervals of the *x*-axis are chosen to ensure that the two groups do not differ in propensity scores within each interval at the 1 percent significance level. The mean of each covariate included in the propensity score model is not different at the 1 percent significance level between the new emerging and established counties.
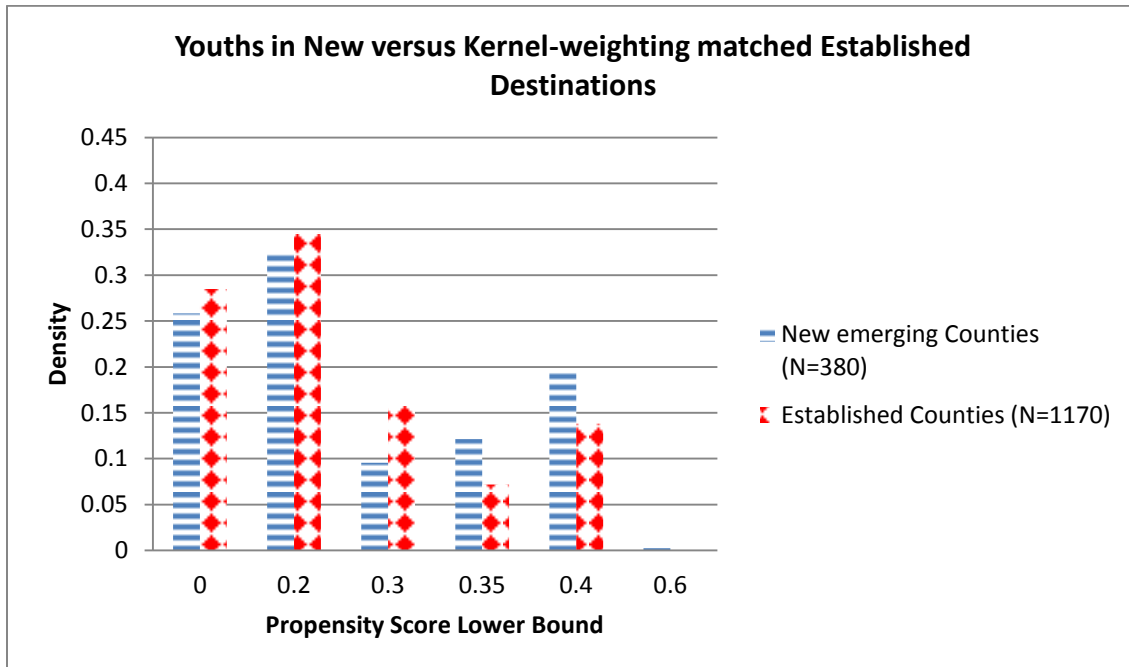
Note: Each point on the *x*-axis represents the lower bound of the estimated log odds ratio of the propensity score weighted by a Gaussian kernel function with bandwidth 0.06. Roughly 10 youths from the new emerging destination are dropped from the matched sample by imposing the common support condition at the 2 percent trimming rule.

Table 1. U.S. Counties by Hispanic Destination Types

State	County New Emerging	Established	State	County New Emerging	Established
Alaska	--	Anchorage			Decatur
Alabama	Colbert	--			De Kalb
	Madison				Fulton
	Mobile				Gwinnett
	Tallapoosa				Henry
	Tuscaloosa				Houston
Arizona	--	Greenlee			Mitchell
		Maricopa			Muscogee
		Pima	Idaho	--	Bingham
		Yuma	Illinois	DuPage	Cook
Arkansas	Clark	--		Lake	Kane
	Crittenden			Marshall	
	Washington			Rock Island	
California	Butte	Alameda		Sangamon	
	Shasta	Contra Costa	Indiana	Adams	--
	Siskiyou	Del Norte		Allen	
		Fresno		Jennings	
		Imperial		Johnson	
		Kern		Lagrange	
		Los Angeles		St. Joseph	
		Monterey	Iowa	Polk	--
		Orange		Warren	
		Riverside	Kansas	Jackson	Ford
		Sacramento		Johnson	
		San Bernardino	Kentucky	Campbell	--
		San Diego		Jefferson	
		San Francisco		Kenton	
		San Joaquin	Louisiana	Bossier	--
		San Mateo		Jefferson	
		Santa Barbara		Madison	
		Santa Clara		Orleans	
		Solano	Maryland	Montgomery	--
		Sonoma		Prince George's	
		Stanislaus	Massachusetts	Bristol	Hampden
		Tulare		Worchester	Suffolk
		Ventura	Michigan	Berrien	--
Colorado	Arapahoe	Adams		Cass	
	Garfield	Denver		Kent	
Connecticut	Fairfield	--		Macomb	
	Hartford			Oakland	
	New Haven			St. Joseph	
Delaware	Sussex	--	Minnesota	Beltrami	--
Florida	Broward	Collier		Dakota	
	Duval	Hillsborough		Hennepin	
	Escambia	Miami-Dade		Le Sueur	
	Lake	Orange		Mower	
	Manatee	Osceola		Ramsey	
	Pinellas			Steele	
	Polk		Mississippi	Forrest	--
	Sarasota			George	
	Sumter			Harrison	
	Washington			Lamar	
Georgia	Cherokee	Fayette		Stone	

State		
Missouri	Greene	--
	Jackson	
	McDonald	
Montana	Silver Bow	--
Nebraska	Lancaster	--
Nevada	--	Clark
		Humboldt
New Jersey	Atlantic	Cumberland
	Camden	Essex
	Gloucester	Hudson
	Mercer	Passaic
	Middlesex	Union
	Monmouth	
New Mexico	--	Bernalillo
		Sandoval
		San Juan
		Santa Fe
New York	Dutchess	Bronx
	Franklin	Kings
	Jefferson	New York
	Nassau	Queens
	Ontario	Westchester
	Orange	
	Putnam	
	Richmond	
	Suffolk	
	Warren	
North Carolina	Buncombe	--
	Cleveland	
	Cumberland	
	Durham	
	Gaston	
	Guilford	
	Iredell	
	Jackson	
	Johnston	
	Mecklenburg	
	Pasquotank	
	Pitt	
	Rutherford	
	Union	
Ohio	Clermont	--
	Franklin	
	Huron	
	Lorain	
	Portage	
	Stark	
	Washington	
Oklahoma	Comanche	--
	McClain	
	Oklahoma	
	Tulsa	
Oregon	Benton	--
	Curry	
	Multnomah	
Pennsylvania	Bradford	
	Bucks	
	Chester	
	Dauphin	
	Lancaster	
	Lehigh	
	Monroe	
	York	
Rhode Island	Kent	--
South Carolina	Beaufort	--
	Berkeley	
	Chester	
	Edgefield	
	Lexington	
	Richland	
Tennessee	Davidson	--
	Humphreys	
	Warren	
Texas	Angelina	Aransas
	Cass	Bexar
	Gregg	Blanco
	Jasper	Caldwell
	Liberty	Cameron
	Nacogdoches	Collingsworth
		Dallas
		Ector
		El Paso
		Fort Bend
		Guadalupe
		Harris
		Hidalgo
		Hockley
		Medina
		Tarrant
		Travis
		Webb
Utah	Salt Lake	--
	Washington	
Virginia	Chesterfield	--
	Fairfax	
	Hanover	
	Fairfax City	
	Hampton	
	Virginia Beach	
Washington	King	Franklin
	San Juan	
Wisconsin	Dane	--
	Kenosha	
	Le Crosse	
	Lincoln	
	Manitowoc	
	Ozaukee	

Table 2. Characteristics of Hispanic Tenth Graders by Destination Type

	New Emerging Destinations	Established Destinations
Number of Youths	390	1,170
Geographic Region		
Northeast	0.23	0.12
Midwest	0.22	0.07
South	0.45	0.29
West	0.09	0.53
Socio-demographic Characteristics		
Fraction of Female	0.51	0.52
Family Composition		
Two parent household (Mother & Father)	0.58	0.57
Two adult guardian[a]	0.19	0.17
Single adult guardian[b]	0.23	0.26
Number of in-home siblings		
None	0.15	0.13
1 or 2	0.54	0.49
3 or more	0.14	0.22
Missing	0.17	0.16
Mother's education		
Less than high school diploma	0.21	0.37
High school graduate or equivalent	0.25	0.23
Attended or Graduated Two-year College	0.20	0.19
Attend Four-year College (No degree)	0.12	0.09
Graduated Four-year college or more	0.21	0.12
Father's education		
Less than high school diploma	0.23	0.37
High school graduate or equivalent	0.21	0.23
Attended or Graduated Two-year College	0.15	0.17
Attend Four-year College (No degree)	0.11	0.08
Graduated Four-year college or more	0.29	0.15
Socio-economic status composite	-0.11	-0.46
	(0.79)	(0.71)
Household Income (in 2001)		
Income ≤ $25,000	0.23	0.37
$25,000< income ≤$50,000	0.36	0.37
$50,000< income ≤$100,000	0.26	0.21
Income > $100,000	0.15	0.05
Mother has professional occupation[c]	0.17	0.10
Father has professional occupation[c]	0.14	0.07
Parental marital status		
Married	0.67	0.63
Missing	0.00	0.01

Ethnicity

Mexican	0.41	0.76
Cuban	0.05	0.03
Dominican	0.02	0.04
Puerto Rican	0.24	0.08
Central American	0.12	0.05
South American	0.16	0.04

English Fluency

Youth is native English speaker	0.55	0.46
Parent is native English speaker	0.46	0.33
Parent English fluency missing	0.11	0.11

Immigrant related factors

Not Immigrant	0.44	0.38
Immigrant	0.56	0.62
Generation status		
Immigrant first generation	0.24	0.22
Immigrant second generation	0.32	0.40
Not immigrant	0.44	0.38
Timing of Parental Arrival in US (% among immigrants)		
Father arrived in US <5yrs	0.11	0.10
5 yrs≤ Father arrived in US <15yrs	0.16	0.13
Father arrived in US ≥16 yrs	0.44	0.53
Mother arrived in US <5yrs	0.08	0.09
5 yrs≤ Mother arrived in US <15yrs	0.25	0.21
Mother arrived in US ≥16 yrs	0.44	0.53

High school Performance & Characteristics

Standardized test score in tenth grade

Reading	48.29	46.04
	(10.42)	(9.30)
Math	47.92	45.93
	(10.38)	(9.29)
Never been retained by tenth grade	0.73	0.72
Information on retention missing	0.15	0.15
Calculus course-taking		
Less than 1 year	0.87	0.91
1 year	0.10	0.05
More than 1 year	0.003	0.008
Missing	0.03	0.03

Family Social Capital

Quality of parent-child relationship	2.65	2.57
(min: 0, max: 7)	(2.06)	(2.05)

Strength of parent information networks	1.20	0.92
(min: 0, max: 5)	(1.45)	(1.24)
Alignment of parent action with child	1.53	1.47
college going (min: 0, max: 3)	(1.10)	(1.10)
School Resources		
# of adults student approached for advice	1.05	1.04 .
(min: 0, max: 3)	(0.91)	(0.90)
School norm for postsecondary education	5.90	5.09
(min: 0, max: 12)	(3.76)	(3.52)
School norm for educational planning	0.52	0.48
(min:0, max: 6)	(1.01)	(1.00)
Community Context		
Four year college available in residing county	0.79	0.91
Census tract level information [d]		
Fraction of each ethnic group representation:		
Mexican	5.61	43.54
Cuban	2.19	2.63
Dominican	0.80	1.65
Puerto Rican	0.43	1.10
Central American	1.33	3.05
South American	2.00	1.65
Percentage of own-ethnic group representation	6.27	42.66
	(9.25)	(29.85)
Fraction of Hispanics living below poverty	3.19	16.42
Fraction of Hispanics with education levels of:		
Less than high school diploma	2.36	13.56
High school graduate or equivalent	1.91	7.76
Some college or associate degree	1.45	6.22
Bachelor's degree or more	1.37	2.97
Enrollment in Postsecondary Institutions		
Four year college	0.35	0.27
Two year college	0.30	0.34
One year college	0.02	0.04
No enrollment	0.34	0.34

Note: All sample size numbers are weighted to nearest 10 as per IES guidelines for restricted-use data.
[a] This category includes households with mother and male guardian, father and female guardian, and two adult guardians.
[b] This category includes households with single mothers or fathers, male guardian, and female guardian.
[c] Professional occupation includes engineer, writer, actor, dentist, and physician.
[d] Among the 1,560 youths in the sample, 70 youths are missing information on their census tract. As a result, the census tract variables are based on 370 youths in the new emerging destination and 1,120 youths in the established destination.

Table 3. Coefficient Estimates and *P* values from the Propensity Score Logit model – Dependent Variable=1 for Youths in New Emerging Destinations; 0 for Youths in Established Destinations

Variables	Coefficient	Standard Error	P-value
Female	-0.02	0.12	0.85
Two adult household	0.10	0.17	0.55
Single parent/guardian household	0.19	0.20	0.35
1 or 2 in-home siblings	-0.10	0.18	0.59
3 or more in-home siblings	-0.40	0.23	0.07
Sibling information missing	-0.00	0.24	0.99
Socio-economic status	-0.13	0.22	0.55
Mother's education level			
High school dropout	-0.53	0.19	0.01
Attended or graduated 2-yr post-sec institution	-0.10	0.19	0.62
Attended 4yr college & no degree	-0.11	0.23	0.63
College graduate or higher degree	-0.05	0.24	0.83
Father's education level			
High school dropout	-0.20	0.19	0.28
Attended or graduated 2-yr Post-sec institution	-0.13	0.21	0.52
Attended 4yr college & no degree	0.33	0.24	0.17
College graduate or higher degree	0.45	0.24	0.06
Household income (in 2001)			
$25,000< Inc ≤$50,000	0.40	0.17	0.02
$50,000< Inc ≤ $100,000	0.48	0.22	0.03
Inc > $100,000	1.10	0.30	0.00
Mother is in professional occupation	0.24	0.19	0.22
Father is in professional occupation	0.18	0.21	0.39
Parents are married	0.20	0.19	0.28
Parental marital status missing	-0.22	1.11	0.84

Note: The omitted categories are male, two parent households, no in-home siblings, mother is high school graduate or equivalent, father is a high school graduate or equivalent, mother is not in profession occupation, father is not in professional occupation, parents are not married, and household income is $25,000 or less.

Table 4. Multinomial Logistic Regression of Hispanic Youths' Postsecondary Educational Outcomes by Destination Type

	Model 1: Four-year college vs. No college				Model 2: Two-year college vs. No college				Model 3: One-year college vs. No college			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
New Destination	0.27*	-0.34***	-0.41***	-0.53***	-0.13	-0.29**	-0.25	-0.22	-0.86**	-0.78**	-0.82**	-0.88**
	(0.14)[a]	(0.13)	(0.14)	(0.16)	(0.15)	(0.13)	(0.14)	(0.15)	(0.42)	(0.34)	(0.37)	(0.38)
Propensity score		8.38***	8.28***	4.62***		5.46***	5.67***	4.22***		3.13	2.04	1.10
		(0.67)	(0.72)	(0.80)		(0.68)	(0.72)	(0.77)		(1.67)	(1.85)	(1.90)
Cuban			0.36	0.26			-0.56	-0.53			0.03	0.05
			(0.32)	(0.37)			(0.37)	(0.38)			(0.84)	(0.87)
Dominican			0.63	0.76*			0.70*	0.73*			-0.01	-0.06
			(0.39)	(0.42)			(0.36)	(0.37)			(1.05)	(1.08)
Puerto Rican			0.04	0.28			0.00	0.07			0.26	0.32
			(0.19)	(0.21)			(0.19)	(0.19)			(0.44)	(0.45)
Central American			0.28	0.59**			-0.31	-0.26			0.39	0.53
			(0.24)	(0.27)			(0.25)	(0.26)			(0.60)	(0.61)
South American			1.23***	1.50***			0.88**	1.19***			-0.24	-0.07
			(0.27)	(0.32)			(0.27)	(0.29)			(1.07)	(1.08)
English native speaker			0.28	-0.05			0.04	-0.15			0.45	0.37
			(0.17)	(0.20)			(0.17)	(0.18)			(0.44)	(0.44)
Parent is fluent in English			-0.18	0.11			-0.31	-0.17			0.77*	0.93**
			(0.19)	(0.22)			(0.19)	(0.20)			(0.46)	(0.46)
Parent's English fluency missing			-0.51*	0.16			-0.24	-0.19			0.34	1.91
			(0.28)	(0.42)			(0.27)	(0.37)			(0.74)	(1.22)
Immigrant first generation			-0.21	0.14			-0.17	-0.03			-2.53**	-2.40**
			(0.31)	(0.36)			(0.31)	(0.32)			(1.00)	(1.02)
Immigrant second generation			0.62**	0.55**			0.29	0.28			1.16***	1.19***
			(0.19)	(0.22)			(0.20)	(0.21)			(0.43)	(0.43)
Father's arrival in US												
Less than 5 years			0.18	-0.05			-0.76*	-0.97**			-2.62*	-2.51*
			(0.39)	(0.43)			(0.41)	(0.42)			(1.34)	(1.33)
5 or more & less than 15 years			0.83**	0.54			0.65**	0.64*			-0.92	-1.05
			(0.34)	(0.39)			(0.33)	(0.34)			(1.14)	(1.13)
Mother's arrival in US												
Less than 5 years			0.10	0.28			0.90*	0.95**			5.01***	4.72***

	(1)	(2)	(3)	(4)	(5)	(6)
	(0.49)	(0.54)	(0.47)	(0.48)	(1.25)	(1.25)
5 or more & less than 15 years	-0.14	-0.33	-0.23	-0.21	2.64***	2.54***
	(0.34)	(0.39)	(0.33)	(0.34)	(0.81)	(0.82)
Tenth grade math test score		0.07***		0.02*		0.01
		(0.01)		(0.01)		(0.03)
Tenth grade reading test score		0.07***		0.04***		0.02
		(0.01)		(0.01)		(0.03)
Never been retained by tenth grade		0.71***		0.71***		0.14
		(0.25)		(0.21)		(0.46)
Retention status missing		0.19		0.71**		-1.44
		(0.39)		(0.34)		(1.20)
Calculus coursework in high school						
Less than 1 year		1.29***		-0.22		1.57**
		(0.38)		(0.43)		(0.63)
More than 1 year		0.88		-2.01		-11.15
		(1.48)		(3.13)		(647.16)
Missing		-0.59		-0.34		-2.65
		(0.46)		(0.37)		(2.87)

* p<0.10, ** p<0.05, *** p<0.01 and N=1,556

Note: The omitted categories are residing in established destination, Mexican ethnicity, youth is not English native speaker, parent is not fluent in English, youth is not immigrant (third generation or above), father arrived in US 15 years or more ago, mother arrived in US 15 year or more ago, youth has never been retained between kindergarten and tenth grade, and youth completed 1 year of calculus coursework.

[a] Standard errors are presented in parentheses.

Table 5. Multinomial Logistic Regression of Hispanic Youths' Postsecondary Educational Outcomes Accounting for Family, School, and Community Context

	Model 1 Four-year college vs. No college			Model 2 Two-year college vs. No college			Model 3 One-year college vs. No college		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
New Destination	-0.53***	-0.24	-0.18	-0.21	-0.23	-0.22	-0.83**	-0.40	-0.39
	(0.17)	(0.23)	(0.23)	(0.15)	(0.21)	(0.21)	(0.39)	(0.50)	(0.50)
Propensity score	3.35***	2.44	2.10*	3.87***	3.22***	3.14***	1.98	2.92	2.72
	(0.86)	(0.92)	(0.93)	(0.81)	(0.85)	(0.86)	(1.97)	(2.09)	(2.11)
Cuban	0.12	0.17	0.12	-0.64*	-0.50	-0.51	0.35	0.69	0.68
	(0.38)	(0.42)	(0.42)	(0.39)	(0.42)	(0.42)	(0.87)	(0.94)	(0.94)
Dominican	0.76*	1.13**	0.98*	0.72*	0.87**	0.83**	-0.04	0.65	0.57
	(0.43)	(0.49)	(0.49)	(0.39)	(0.44)	(0.44)	(1.10)	(1.21)	(1.21)
Puerto Rican	0.09	0.40	0.32	-0.01	0.13	0.12	0.41	0.81	0.78
	(0.22)	(0.26)	(0.26)	(0.20)	(0.23)	(0.23)	(0.45)	(0.55)	(0.55)
Central American	0.76**	0.96***	0.86*	-0.22	-0.04	-0.06	0.66	1.14	1.07
	(0.29)	(0.34)	(0.34)	(0.27)	(0.30)	(0.30)	(0.62)	(0.70)	(0.71)
South American	1.69***	1.95***	1.87***	1.36***	1.63***	1.63***	-0.19	0.19	0.20
	(0.35)	(0.39)	(0.39)	(0.32)	(0.35)	(0.35)	(1.09)	(1.15)	(1.15)
English native speaker	-0.09	-0.13	-0.16	-0.13	-0.21	-0.22	0.26	0.39	0.37
	(0.21)	(0.22)	(0.22)	(0.19)	(0.19)	(0.19)	(0.46)	(0.49)	(0.50)
Parent is fluent in English	0.00	0.04	0.05	-0.19	-0.19	-0.18	1.00**	1.12**	1.14**
	(0.23)	(0.24)	(0.24)	(0.21)	(0.22)	(0.22)	(0.48)	(0.51)	(0.51)
Parent's English fluency Missing	0.27	0.08	0.11	-0.25	-0.25	-0.23	2.06	1.19	2.25
	(0.44)	(0.46)	(0.47)	(0.38)	(0.39)	(0.39)	(1.24)	(1.34)	(1.36)
Immigrant first generation	0.20	0.23	0.24	-0.10	-0.18	-0.17	-2.48**	-2.57**	-2.56**
	(0.38)	(0.41)	(0.41)	(0.34)	(0.36)	(0.36)	(1.03)	(1.08)	(1.08)
Immigrant second Generation	0.62**	0.60**	0.55*	0.28	0.23	0.20	1.16**	1.10**	1.06**
	(0.24)	(0.25)	(0.25)	(0.22)	(0.23)	(0.23)	(0.44)	(0.45)	(0.45)
Father's arrival in US									
Less than 5 years	0.04	-0.19	-0.19	-1.01**	-1.08**	-1.08**	-3.08**	-3.20**	-3.08**
	(0.46)	(0.49)	(0.49)	(0.43)	(0.45)	(0.45)	(1.36)	(1.35)	(1.36)
5 or more & less than 15 years	0.56	0.50	0.49	0.56	0.55	0.56	-1.38	-1.28	-1.22
	(0.42)	(0.44)	(0.45)	(0.35)	(0.36)	(0.36)	(1.19)	(1.22)	(1.23)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mother's arrival in US									
Less than 5 years	0.30	0.48	0.38	1.04**	1.15**	1.10**	4.97***	5.31***	5.19***
	(0.58)	(0.61)	(0.61)	(0.50)	(0.52)	(0.52)	(1.30)	(1.32)	(1.33)
5 or more & less than	-0.43	-0.45	-0.52	-0.10	-0.01	-0.04	2.78***	2.84***	2.78***
15 years	(0.42)	(0.44)	(0.45)	(0.36)	(0.37)	(0.37)	(0.87)	(0.89)	(0.89)
Tenth grade math	0.06***	0.06***	0.06***	0.01	0.01	0.01	0.00	0.01	0.01
Test score	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)	(0.03)
Tenth grade reading	0.06***	0.06***	0.06***	0.03***	0.03***	0.03***	0.02	0.02	0.02
Test score	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)	(0.03)
Never been retained	0.58**	0.47*	0.47	0.62***	0.57**	0.57**	0.20	0.16	0.18
by tenth grade	(0.27)	(0.28)	(0.28)	(0.22)	(0.23)	(0.23)	(0.48)	(0.52)	(0.52)
Retention status missing	1.20***	1.18**	1.16*	0.77**	0.85**	0.82**	-1.58	-1.94	-1.98
	(0.45)	(0.46)	(0.46)	(0.38)	(0.39)	(0.39)	(1.28)	(1.38)	(1.39)
Calculus coursework in high school									
Less than 1 year	1.43***	1.40***	1.41***	0.14	0.10	0.08	1.64**	1.55**	1.55**
	(0.43)	(0.44)	(0.44)	(0.47)	(0.47)	(0.47)	(0.68)	(0.69)	(0.69)
More than 1 year	0.73	0.03	0.04	-2.25	-2.54	-2.55	-11.86	-12.30	-11.29
	(1.43)	(1.59)	(1.55)	(3.13)	(3.19)	(3.18)	(782.16)	(1046.29)	(626.93)
Missing	-0.64	-1.11**	-1.09**	-0.56	-0.90**	-0.95**	-2.76	-2.96	-2.97
	(0.46)	(0.53)	(0.52)	(0.37)	(0.43)	(0.43)	(2.88)	(2.91)	(2.91)
Parent-child relationship	0.09	0.07	0.08	0.06	0.06	0.06	-0.08	-0.11	-0.11
Quality index	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.11)	(0.12)	(0.12)
Parental information	0.16**	0.17**	0.17**	0.01	0.03	0.03	-0.43**	-0.44**	-0.43**
Network index	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.19)	(0.19)	(0.19)
Parent-child alignment	0.45***	0.49***	0.48***	0.00	0.03	0.04	0.33	0.35	0.34
index	(0.10)	(0.10)	(0.10)	(0.09)	(0.09)	(0.09)	(0.21)	(0.22)	(0.22)
# of adults at school	0.26**	0.17	0.16	0.19**	0.12	0.12	0.18	0.11	0.10
Student approached	(0.10)	(0.11)	(0.11)	(0.09)	(0.09)	(0.09)	(0.25)	(0.26)	(0.26)
# of adults approached	-1.20***	-1.35***	-1.36***	-1.46***	-1.45***	-1.46***	0.15	0.23	0.20
Missing	(0.37)	(0.39)	(0.39)	(0.29)	(0.30)	(0.30)	(0.51)	(0.54)	(0.54)
School norm on	0.11***	0.12***	0.11***	0.07***	0.07***	0.07***	-0.03	-0.01	-0.02
Postsecondary education	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.06)	(0.06)	(0.06)
School norm on	-0.03	-0.04	-0.03	-0.01	-0.03	-0.02	-0.09	-0.16	-0.15
Educational planning	(0.09)	(0.09)	(0.09)	(0.08)	(0.08)	(0.08)	(0.20)	(0.23)	(0.23)
Percentage of	--	0.01	0.01	--	0.00	0.00	--	0.02	0.01
Own-ethnic group		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)

Percentage of Hispanics Living below poverty	--	0.00 (0.01)	-0.00 (0.01)	--	0.01 (0.01)	0.01 (0.01)	--	0.01 (0.03)	0.01 (0.03)
Percentage of Hispanics with									
Less than high school diploma	--	-0.02 (0.02)	-0.02 (0.02)	--	-0.03 (0.02)	-0.03 (0.02)	--	0.01 (0.03)	0.01 (0.03)
High school degree/GED	--	-0.03 (0.03)	-0.03 (0.03)	--	0.02 (0.03)	0.02 (0.03)	--	0.01 (0.07)	0.01 (0.07)
Some college/associate degree	--	0.07 (0.05)	0.07 (0.05)	--	0.07 (0.04)	0.07 (0.04)	--	-0.09 (0.10)	-0.09 (0.10)
Bachelor's degree or more	--	0.04 (0.04)	0.03 (0.04)	--	-0.03 (0.04)	-0.04 (0.04)	--	0.05 (0.09)	0.05 (0.09)
Four-year college available in Residing county	--	--	1.04*** (0.30)	--	--	0.18 (0.21)	--	--	0.42 (0.64)

* p<0.10, ** p<0.05, *** p<0.01. For column (1) N= 1,556 and for column (2) N=1,488.

Note: The omitted categories are residing in established destination, Mexican ethnicity, youth is not English native speaker, parent is not fluent in English, youth is not immigrant (third generation or above), father arrived in US 15 years or more ago, mother arrived in US 15 year or more ago, youth has never been retained between kindergarten and tenth grade, and youth completed 1 year of calculus coursework. For column (2), the model excludes youths who are missing information on their census tract.